

Understanding the Reasons for and Barriers to Becoming Vegetarian in Prospective Vegetarians and Vegans

A Qualitative Phenomenological Exploration

by

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ABSTRACT

Vegetarian and vegan diets reduce animal suffering and are good for the environment. When well-planned, they are healthful and nutritionally adequate for all stages of the life cycle, and may be used to prevent and treat diseases that cause significant morbidity and mortality in Canada. Interest in vegetarian diets is prevalent, but little research has been conducted to understand what prevents interested individuals from making this lifestyle change.

The purpose of my research is to provide a rich, detailed description of the lived experience of considering vegetarianism. I hope to shed light on the contemplation process, specifically, the reasons for and barriers to becoming vegetarian. This research is the first to explore the perspectives of prospective vegetarians—people who are not vegetarian, but are in the midst of considering it.

Interpretive phenomenology is a qualitative research approach that endeavours to understand the ways in which people make sense of their experiences. Phenomenology was used because the topic is exploratory in nature, and rich, in-depth accounts of the phenomenon of transitioning to vegetarianism were sought.

Findings revealed that many prospective vegetarians have a multitude of reasons for considering vegetarianism. Their motives are often part of a larger worldview that embodies philosophical and ideological commitments to the wellbeing of other people, other animals, and the broader environment. The barriers faced by those seeking to adopt a vegetarian lifestyle are numerous and decidedly interconnected. Becoming vegetarian requires the attainment of knowledge, skills, and abilities that differ from those beneficial to being non-vegetarian. Changing deeply-ingrained habits and patterns is difficult in its own right, and becoming vegetarian entails these challenges. Yet it further involves resisting social norms and becoming part of a minority group that is not always valued or understood. At its core, becoming vegetarian is challenging because normative societal eating patterns are dominated by animal products.

RÉSUMÉ

Les régimes végétariens et végétaliens réduisent la souffrance des animaux et sont bénéfiques pour l'environnement. Quand ces régimes sont bien planifiés, ils sont sains et adéquats du point de vue nutritionnel pour toutes étapes du cycle de vie. De plus, ils peuvent être utilisés pour prévenir et traiter des maladies qui sont responsables d'une part significative de la morbidité et mortalité au Canada. L'intérêt pour les régimes végétariens est répandu, mais peu de recherches ont été menées pour mieux comprendre ce qui empêche les personnes intéressées à initier ce changement de mode de vie.

Le but de ma recherche est de fournir une description riche et détaillée de l'expérience vécue de la considération du végétarisme. J'espère ainsi clarifier le processus de contemplation, et, plus précisément, les motivations qui incitent les personnes à devenir végétariens ainsi que les obstacles que présente cette transition. Cette recherche est la première à explorer les perspectives des végétariens potentiels, c'est-à-dire les personnes qui ne sont pas végétariennes mais qui considèrent le devenir.

La phénoménologie interprétative est une approche de la recherche qualitative qui tente de comprendre les façons dont les personnes attribuent un sens à leurs expériences. La phénoménologie a été utilisée ici parce que le sujet est de nature exploratoire, et que des descriptions riches et approfondies du phénomène de la transition au végétarisme ont été recherchées.

Les résultats ont révélées que plusieurs végétariens potentiels considèrent le végétarisme pour plusieurs raisons. Leurs motivations sont souvent associées à une vision du monde qui inclut des engagements philosophiques et idéologiques relatifs au bien-être des autres personnes, des animaux, et, plus largement, de l'environnement. Les obstacles rencontrés par ceux-ci sont nombreux et résolument interconnectés. Devenir végétarien exige l'acquisition de connaissances, de compétences et d'habiletés qui diffèrent de celles qui sont bénéfiques pour la population non-végétarienne. Le changement d'habitudes et de conduites profondément ancrées est difficile en soi, et devenir végétarien y est associé. Mais cela implique aussi de résister à certaines normes sociales et d'appartenir à une minorité qui n'est pas toujours estimée ni bien comprise. Essentiellement, devenir végétarien est exigeant parce que le modèle normatif alimentaire généralement accepté est dominé par les produits animaliers.

DEDICATION

To my dear parents, for teaching me so much more than you will ever know about justice, fairness, equality, kindness and compassion. You have loved me, believed in me, and supported me in countless ways to pursue my dreams. And worried throughout all of my dietary transitions. I love and appreciate you beyond expression.

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abundance of books, and encouraging me to attend numerous events that exposed and familiarized me with qualitative research and thinking. I know that phenomenology is an “unmethod,” but I appreciate your upholding that so astutely and giving me permission to make decisions about the presentation of my work; I found your phenomenological approach to be simultaneously unnerving and liberating. Thank you for meeting with me for hours, patiently answering every “one more” question that I had with patience and understanding. For listening to my struggles and helping to quell my anxiety with reminders that I am capable; that perfection is not realistic; and for putting this dissertation into perspective. Between the two of you, I truly could not have asked for a better supervisory team.

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PREFACE & CONTRIBUTION OF AUTHORS

The candidate, Tara Gallimore, wrote all sections of this thesis dissertation. Dr. Katherine Gray-Donald and Dr. Richard Hovey were the supervisory authors.

The candidate obtained ethics approval for this study, and created recruitment materials and research consent forms, with the guiding assistance of Dr. Elaine Weiner. Between February and May 2014, the candidate carried out all field work and data collection for this study. Dr. Katherine Gray-Donald and Dr. Richard Hovey were involved in all subsequent stages of the project, from the evaluation of the research proposal, to the data analysis, editing, and final submission.

All data preparation (transcription and transcript de-identification), and data analysis were performed by the candidate, as was the review of literature. Any information used that is based upon the work(s) of others has been cited, and the sources of this information provided in the “Bibliography.”

I. INTRODUCTION

Every meal I think about eating meat, and I think about what it means... Because supporting the industry—supporting the meat industry—and eating meat that’s not organic, and eating meat that’s not coming from my community, is, without a doubt, supporting factory farming and industrial agriculture. And supporting that—supporting industrial agriculture—it makes me *cringe*. It makes me want to cry. It makes me uncomfortable in my own skin. It makes me uncomfortable that it’s a part of my body. It makes me uncomfortable that it’s going on somewhere and I can’t even see it... And it’s not even just about what’s going on behind the closed doors. It’s also about all the decisions that are leading to that point: All of the politics, all of the policies, all of the, almost *deceit*. What I mean by that is all of the secrecy; that secrecy means so much. The fact that industrial agriculture—industrial meat production—is so secretive, says everything. That secrecy is so so symbolic for all of the problems that are going on within it, but nobody wants to admit are happening—even I don’t want to admit it. Even with the books I’ve read and the opinions I have, and the fact that I think about it at every meal isn’t enough to make me stop eating meat, which is in a way kind of sad.

Aimee was contemplating transitioning to a vegetarian lifestyle. I find this excerpt from our conversation to be powerful and evocative in illustrating part of her thought process when deciding whether to eat meat. While not the only consideration, the welfare and rights of animals, and industry politics, were major reasons that most of my participants were contemplating vegetarianism.

During my research inquiry, I will explore the lived experience of contemplating vegetarianism by people who are not—but who are thinking about becoming—vegetarian. In the second chapter, a literature review will outline current knowledge about vegetarianism and the transition to a vegetarian lifestyle. In the following chapters, my exploration will cover two central themes that came out of my research: the reasons why people consider transitioning to a vegetarian lifestyle, and the barriers that prevent people who would like to become vegetarian from doing so.

When I set out to do this research, I was interested in vegetarian diets. Yet many of my participants quickly informed me that they viewed it as more than a diet, but as a “way of life.” Furthermore, contemplating becoming vegetarian was affecting my participants’ lives in many ways outside of their dietary intake. As such, I have written this enquiry with a focus on both diet and lifestyle.

Self-Disclosure

The first time I considered vegetarianism was during an introductory moral philosophy class. Learning about how rights can be determined, the tenets of Buddhist ethics, and the works of famous philosopher Peter Singer revealed that I no longer felt logically or emotionally comfortable eating meat. Sure that my parents would not support my being vegetarian, I did not talk to anyone about what I had learned, and vowed to become vegetarian when I moved out. Five years later, I moved out with a diminished memory—perhaps somewhat deliberately—of my previous reasons for wanting to try vegetarianism. When I first tried to cook meat I realised that I was repulsed touching raw flesh, overly-anxious about food safety, and very frugal. Now a nutritionally-ignorant semi-vegetarian who could not cook, most of the vegetarian recipes I found online were side dishes, not cookbook quality, and contained only cheese for protein. I then moved in with a flatmate who studied environmental psychology, and learned much about the environmental impact of meat production. A self-proclaimed environmentalist, this knowledge instilled in me unsettling feelings of personal hypocrisy. This flatmate, who became one of my best friends, taught me how to cook delicious, filling, balanced vegetarian meals. As we had a comfortable friendship, one day he asked me why I ate meat at restaurants and other people's houses, but not at home. Unable to answer his question to my personal satisfaction, I decided to become vegetarian.

The first time I seriously considered transitioning to veganism was after visiting a small award-winning local dairy farm after moving to Montreal. I remember feeling sick to my stomach, imagining what my life would be like if people treated human women this way. Highly distressed, I started buying organic cow's milk, hoping (and somewhat successfully convincing myself) that this meant something for the cows. At twice the price, I immediately started drinking much less cow's milk. Yet my love for dairy, and uncertainty about how to replace its calcium, resulted in my eating more dairy-based yogurt, to my chagrin. I also started to think more about the organic "free range" chicken and duck's eggs I was buying. What exactly did that mean? I did not make time to visit any of the farms I was buying from at the farmer's market. Hoping to become a better cook, I started listening to a podcast on vegetarian cooking by animal rights advocate and vegan chef Colleen Patrick-Goudreau. After a few months, I finally felt informed enough about the meaning of organic and humane animal products to decide that I did not feel comfortable eating them. One and a half years after my dairy farm visit, just before coming home for Christmas in December 2013, I transitioned to veganism.

My personal interest in lifestyle change, my journey to veganism, and the journeys of others, piqued my interest in the phenomenon of becoming vegetarian. While vegetarian, my then partner called me after watching YouTube documentary “Earthlings” to tell me that he wanted to become vegetarian. His experience transitioning, and how it differed from mine, made me think a lot about the gendered implications of eating meat, and the ways in which masculinity in Canada is defined. When I finally became vegan, the change in the way that other people related to me further interested me in the transition and what might prevent people from making it. For me, veganism aligned my values and actions; it made me feel good about my decisions. Yet I was finally starting to experience some of the “blow-back” my former partner had experienced when he became vegetarian: Hostility, teasing, silence, and unsolicited nutrition advice were reactions completely alien to my former meat-eating lifestyle.

From my experience as a vegan, vegetarians and animal rights activists are often seen as irrational, overly-emotional, self-righteous people with ill-informed opinions, extreme, impractical lifestyles, and trivial concerns. I have noticed such depictions in the media, but also in my interactions with others. Yet after publicly declaring my veganism, I also slowly became the recipient of confessions from people who wanted to eat less meat or follow a vegetarian or vegan diet. It made me wonder what parts of my experience facilitated my vegetarianism, and under what circumstances I might have done so earlier, later, or not at all. I also wondered why I had been able to become vegetarian, and eventually vegan, and why some people who desired the same thing felt unable to do so. Curiosity about the experiences of others, and a desire to help people eat in a way consistent with their values of environmental stewardship and non-violence, prompted my research objectives.

Furthermore, lack of knowledge about vegetarian nutrition and lack of recognition of vegetarian values seems rampant in health care. From a Dietitian suggesting I discontinue my vitamin B₁₂ supplement, to a Doctor recommending that all vegans eat steak once a week, I feel fortunate to have access to credible information about how to healthfully eat a vegan diet. Yet for current or prospective vegetarians who do not have this luxury, inability to trust their health care practitioners for guidance may lead them to turn to alternate sources of information. Oftentimes, this may be to the detriment of their health—a source of personal and professional concern to me as a future Dietitian. In showcasing the experiences of prospective vegetarians, I hope to help health care practitioners better understand how to assist them.

Purpose of the Inquiry

The purpose of this phenomenological enquiry is to explore the lived experience of considering vegetarianism. To gain a deeper understanding of the barriers impeding people who want to become vegetarian, and of the reasons why they are interested. My intention is to portray these experiences in a way that readers and my participants can understand and relate to. This research will also be helpful for people who are themselves considering becoming vegetarian, because learning from others may help them feel less isolated in their journey.

I further offer that health care professionals and environmental and animal rights activists alike can gain a greater appreciation for the experiences of current and prospective vegetarians so that they can assist and relate to them with compassion, understanding, and empathy. This research will add to the limited understanding of this topic and this enquiry will advance knowledge about dietary and lifestyle behaviour change; in particular, the challenge of living and eating in a way that differs from family, friends and society as a whole. This study's intention and purpose is to bring into presence, humanize, and make explicit the complexity of transitioning from what is considered in Canada to be a standard diet to becoming a vegetarian.

As with all research, I seek answers to questions to inform, sensitize, and create new understandings about topics previously less understood. As such, the findings from this research will provide health care practitioners who work with current and prospective vegetarians to approach them in a thoughtful, knowledgeable and considerate manner. I invite you to meet my participants, and in so doing, to try to put aside your pre-existing ideas about vegetarians.

Meet My Participants

Rana

Rana was the very first person I interviewed, and I was so nervous that our conversation only lasted about 20 minutes. A Dietetics student, Rana was 20 when we spoke. In the year leading up to our conversation, she had started to dislike the taste of meat: First it was just red meat, but more recently it had become white meat as well. Originally from a country in Northern Africa, she found that the spices and cooking methods used there effectively masked the taste, but Rana did not cook this way because it is incredibly time-consuming. Her brother, with whom she lived, became concerned about her protein intake when he noticed her cooking with tofu more often. He wanted her to eat well because she worked out and was still growing, and urged her to eat meat. Unfortunately, technical problems with my recording device meant that I was unable to transcribe the majority of my conversation with Rana. This means that I was unable to include her thoughts in the majority of my findings. In the instances where I have included her, I explicitly mention this.

Lynn

At the age of 27, Lynn had just about completed her master's in library and information studies when we spoke. She had disliked eating meat for almost as long as she could remember: Disgusted by the idea of eating a dead animal, Lynn would eat meat when someone prepared it for her, but made vegetarian meals for herself at home, and mostly ordered vegetarian meals at restaurants. A number of years ago, she started dating long-time vegetarian Alex, and decided to become fully vegetarian with him. Being vegetarian while spending time with her family—who is from a Canadian fishing village—felt awkward; she genuinely felt that it was disappointing and burdensome to them. After having been vegetarian for about two years, Lynn had “lapsed” and ate fish again while she and Alex visited her family. This decision led her to feel a lot of internal guilt. Moreover, deep down she felt that dairy and egg farming subjected animals to the same amount of cruelty as meat farming. In fact, she felt somewhat “value neutral” eating a dish full of cheese or eggs as she did eating a fish. Furthermore, she felt that a vegan diet was generally healthier than a diet containing animal products. While she ideally wanted to become vegan, Alex did not, and Lynn did not feel able to adopt a vegan lifestyle without him on board as well. At the time we spoke, Lynn had convinced Alex to try a raw vegan diet with her for 30 days, and they would be starting in a few months. To her, this would be a fun challenge, and the finite time-period made it manageable.

Aimee

Aimee's older sister, with whom she shared a love of animals and was very close, was already vegetarian when Aimee became pescetarian (a semi-vegetarian diet that includes fish—see page 22 for more definitions) at the age of 16. Originally from Canada, Aimee used to be very concerned about animal rights, and her parents had accommodated their children's choices, sometimes cooking three different meals. A few months before I interviewed her, while visiting her parents in Asia, they were eating at the same restaurant every day. Tired of the lack of vegetarian options, Aimee made what had felt like a controversial and complicated decision: She started eating land animals again. When she returned to Montreal, she continued to eat them occasionally. When we spoke, she was 22 years old, going through a transition period out of pescetarianism, and contemplating returning to it. Her transition out of pescetarianism had been relatively easy, especially living with and dating non-vegetarians. Yet she thought about the implications of her decision at every meal. Aimee studied and was very concerned about environmental sustainability, and highly uncomfortable with the conditions of animals kept in factory farms. While she did not see herself being vegetarian or pescetarian indefinitely, she was considering going back to it for short future time periods when she could not find meat from animals she felt were treated well. Studying nutrition fuelled her love of trying new foods and cooking, and while she believed that a plant-based diet is healthier, it was not one of her main reasons for considering vegetarianism.

Islah

Islah was a semi-professional athlete, science major, and volunteer at an environmental non-governmental organization (NGO) when we spoke. She inherited two genetic anemias that require her to eat a high-protein diet for optimal health and symptom control. Islah once experienced iron deficiency anemia as a child, but improper dose calculations led to an iron overdose that almost necessitated surgery, terrifying her parents. In her mid-teens, Islah "blackmailed" her parents into letting her try a vegetarian diet for one month; they obliged on the condition that she cook all of her own meals. At the time, she ate mainly steamed vegetables, and remembered feeling bloated but otherwise very good. Age 19 when we spoke, Islah was interested in vegetarianism out of concern for the environment, but mainly for the suffering that animals undergo when they are killed, something she has witnessed first-hand. She grew up in North Africa where a lamb is slaughtered yearly by the father of the household during the Muslim holiday Eid al-Adha. Before the slaughter, families care for the lamb at home, growing increasingly attached to it. The only one in her family able to watch the slaughter, it upset her that buying multiple lambs had become a way to showcase wealth. She had been slowly

transitioning to a vegetarian diet, and the only meat she was still eating when we spoke was fish. Doctors assured her that plant protein is as suitable as animal protein for her anemias. With prior experience teaching North African cooking classes, Islah wanted to learn to cook quick vegetarian meals, and eat a healthful diet that would support her athleticism and iron levels without the need for supplements.

Ellen

Ellen had recently watched the documentary Food Inc. when we spoke. Originally from the United States, she had subsequently become disgusted by fast food companies; the way that Americans are eating; the quality of the meat available; and the deficits in regulatory agency inspections. She was also concerned about the food fed to farmed animals; the increased risk of food-borne illness from animals kept in crowded conditions; and the ease at which disease can spread in large-scale farming operations. Furthermore, Ellen was concerned about the subsidies on food for farmed animals and other political decisions surrounding the meat industry, as well as its environmental impact. Ellen was considering pescetarianism, mainly for health reasons, as she felt that fish is a healthful food. She had recently spent a year living in Argentina with a host family. Meat was a common food there, and while she tried to maintain that she did not enjoy sausages, ribs, and other high-fat meats, she did not have much say in what was offered to her. Now living on her own for the first time, Ellen was in a position to cook for herself and buy her own groceries. Excited about the idea of making her own food choices, she was also considering avoiding things such as GMOs and high-fructose corn syrup. During our conversation, she became increasingly uncertain that she would ever become fully pescetarian because of the occasional meat that she wanted to enjoy.

Odell

While her mom had been vegetarian for a few years while she was a teenager, Odell never thought she would consider it herself: She grew up in China where she disliked the vegetarian meals, and the vegetarian population consisted mainly of Buddhist monks. Yet on her last birthday, while walking through the market with her dad, and pointed out a fish that she enjoyed. When the person working there killed it in front of her, she immediately regretted it, vowing never to kill an animal on her birthday again. She subsequently attended a weekend Forest Gardening course, where she ate plant-based meals and met vegans with whom she discussed the ethics of killing animals. By the time we spoke, she was more concerned about meat's impact on her health, especially the use of antibiotics and hormones, and on the environment—the latter of which she was learning about in school. While she found it relatively

easy to cook vegetarian meals at home, she had recently started working at a restaurant where she was provided with free non-vegetarian meals, and dating a non-vegetarian. Her boyfriend resisted the idea of her cooking a vegetarian meal for him, and her mom was not encouraging either. Even her good friends excluded her from their usual shared meals at restaurants. When we spoke, Odell was less seriously considering vegetarianism, but wanted to eat vegetarian once a week, on Meatless Mondays. She had hoped that our conversation would motivate her to move in that direction.

Jeremy

Jeremy is from the United States, where he grew up eating at fast food restaurants. He had also attended a ballet boarding school from grades 7 to 12 where one of his vegetarian classmates commented that lambs are cute when he mentioned that he and his family ate lamb for Easter dinner. At the time, he thought it was ridiculous to base an animal's right to life on its appearance. Jeremy was 23 when we spoke, majoring in economics, and had taken all of his university's moral philosophy classes. These classes, and the writings of philosopher Peter Singer, got him thinking about the rights people ascribe to other animals; it did not sit right with him that dogs in Canada and the U.S.A. are treated so well, but not pigs, despite being more intellectually capable. Jeremy knew that he had a tendency to overdo things: He had strictly avoided alcohol for years because of a family history of addiction. Furthermore, his frugality when he first started university resulted in negative impacts on his social life, but also vegetarianism (a positive consequence for him). Ideally, Jeremy wanted to be vegan because he felt that the dairy and egg industries caused unnecessary suffering and right violations that he did not want to support. Yet he was comfortable as a self-defined "social meat eater," weary of becoming too strict about anything, as he had done in the past. Furthermore, Jeremy felt that a person's ability to influence others' eating habits had better consequences for farmed animals than their eating habits alone. As such, he was considering becoming a full-on vegetarian or vegan if he were to move up the corporate ladder into a powerful position later in life. The day we spoke, he was about to embark on an internship with a non-profit organization encouraging ethical altruism.

Paige

Paige was studying environmental science, and working at the on-campus Greenhouse when we spoke. She had been diagnosed with gastroesophageal reflux disease (GERD), and experiencing severe symptoms since infancy: Eating high fat foods (including red meat), spicy foods, acidic foods (e.g., tomatoes), and some others, caused her to regurgitate. Paige was 29 when she spoke, had been avoiding red meat for years, and considered herself a semi-vegetarian. Red meat was a common food in

the small Canadian town where she was from, and she often felt judged for avoiding it. Paige was also on a tight budget, and did not want to take the medicine she had been prescribed for her GERD in part because of its cost. Furthermore, when she strictly followed a popular diet book she had found, her symptoms were reduced—but not eliminated. Paige had learned in CEGEP (a pre-university college part of Québec's education system) about protein-combining (i.e., amino acid combining), a myth popularized in the 1970s purporting that vegetarians must combine foods with complementary amino acids at every meal. After learning about the environmental impact of animal agriculture in school, she had tried to become vegetarian once, but researching each food's amino acid profile had become impractical. Furthermore, eating out in the small town where she was from was hard enough; combining vegetarianism with her current dietary restrictions seemed difficult. Paige hated to cook, and her sister, with whom she was living, cooked for both of them. She felt that becoming fully vegetarian when she moved out on her own was more practical. Paige's number one concern was getting enough nutrients on a vegetarian diet, including iron and calcium, but mainly good quality protein. She felt that she had a lot to learn before she could do it.

Aaron

Aaron never thought he would consider vegetarianism. Proud of the different types of animals he had eaten and hunted, he was completing a post-doctoral fellowship in natural sciences when we spoke. Yet about a year prior to our conversation, Aaron had started thinking about what rights—such as the right to life—are based on. When his wife moved to start a new job, they began a long-distance relationship in which he became her cat's primary caregiver. This is when he started to notice its unique personality and capacity to emote. When her cat became sick and passed away, Aaron realised how attached to it he had become. Around the same time, he started listening to a radio program about animal intelligence. As he explored the idea that rights could be based on intelligence, he began to feel that perhaps killing certain animals to eat them was morally wrong. Aaron had subsequently tried vegetarianism for a time period, but had found it difficult to eat enough protein to complement his weight-training regime. Furthermore, he had really missed the taste of meat, and it became difficult to resist at restaurants and in other social situations. At the time we spoke, he was considering returning to vegetarianism, but was feeling less convicted about it than he had previously. Unfortunately, technical difficulties with my recording device meant that only 45 minutes of our conversation was recorded. While I do not quote Aaron as much as I would have liked, we discussed his reasons for considering vegetarianism, and a few other interesting details, in that time period.

II. LITERATURE REVIEW

Timing: When I Reviewed the Literature

In contrast to some other research approaches, an ideal phenomenological study involves the review of literature after data collection, instead of beforehand [1]. This practice permits the participant narratives to guide the type of literature that is relevant, rather than the other way around. I chose to time my literature review in this manner.

Vegetarianism

What is Vegetarianism?

A vegetarian diet describes any eating pattern that excludes meat, which refers to portions of any animal eaten as food, including fish, birds, reptiles, and mammals . This definition is consistent with those found in the literature and is relevant to clinical practice and vegetarian nutrition recommendations [2-4]. Several types of vegetarian eating patterns are outlined here, although this list is by no means inclusive:

Lacto-ovo-vegetarian: An eating pattern that excludes meat, but includes eggs and dairy. This is what typically comes to mind when people refer to vegetarian diets.

Ovo-vegetarian: An eating pattern that excludes meat and dairy, but includes eggs.

Lacto-vegetarian: An eating pattern that excludes meat and eggs, but includes dairy.

Vegan: An eating pattern that excludes meat, dairy, eggs, animal products such as gelatin, and sometimes honey.

Some of my participants wanted to minimize their meat consumption, but still include some meat in their diets. The eating patterns they were interested in adopting are typically referred to as semi-vegetarian diets. Several types are outlined here:

Semi-vegetarian or flexitarian: A plant-based eating pattern that may include dairy and/or eggs, and includes occasional meat, perhaps once or twice weekly.

Pollo-vegetarian: A plant-based eating pattern that may include dairy and/or eggs, and includes occasional poultry but no other types of meat.

Pescetarian: A plant-based eating pattern that may include dairy and/or eggs, and includes occasional fish but no other types of meat.

It is also important to note that vegetarian and semi-vegetarian eating patterns may also be part of a lifestyle, of which diet is only one aspect [5]. For example, the Vegan Society defines veganism as “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” [6].

Prevalence of and Interest in Vegetarian Diets

In 2001, 4% of the Canadian population was estimated to be vegetarian [7]. In 2004, vegetarianism in Canada was estimated at 3%, with 8% of Canadian households containing one or more vegetarians [8]. Rates of vegetarianism in Canada were expected to have increased since then, but current literature on the percentage of vegetarians in the Canadian population is lacking [2]. Rates of vegetarianism in the United States have increased over the last decade, with the number of vegans having increased from 300,000-500,000 people in 1997 to 2.5-6 million people (1-2% of the U.S. population) in 2012 [9-11].

In 1999, a study conducted on over 600 students and staff on a university campus in the United States found that 30% would consider becoming vegetarian, and 67% would consider becoming vegetarian for one day [12]. A study conducted in Australia in 2003 on 601 randomly-selected people revealed that while only 1.5% followed a vegetarian diet, 40% were either somewhat or very interested in vegetarianism [13]. A follow-up study by the authors found that 14% of respondents were considering adopting a plant-based diet [14]. These suggest potential significant interest in vegetarian diets, even in populations with low rates of vegetarianism.

Vegetarian Diets and Chronic Disease Risk

The Academy of Nutrition and Dietetics released its latest position paper on vegetarian diets in 2015 [4]. Here, as in past position papers (including a joint paper with Dietitians of Canada), it asserted that vegetarian diets are suitable for all stages of the life cycle, and can be beneficial in the prevention and treatment of a number of non-communicable health conditions, most of which are main causes of mortality in Canada: atherosclerosis, hypertension, type 2 diabetes, and obesity [2, 4, 15, 16]. Furthermore, vegetarian children, adolescents, and adults are more likely to meet the 2010 Dietary Guidelines for Americans than non-vegetarians [4].

Vegetarian Diets and Risk of Nutritional Deficiencies

Despite the fact that nutrient deficiencies are not major causes of mortality in Canada, vegetarians are at increased risk for certain nutritional deficiencies compared to non-vegetarians; simply excluding meat, dairy, or eggs from the diet does not guarantee good health or adequate nutrition [4]. The nutrients that vegetarians need to be particularly prudent about consuming enough of are vitamin B₁₂, iron, omega-3 fatty acids, zinc, calcium, and vitamin D [4, 5]. In fact, a vitamin B₁₂ deficiency can actually increase vegetarians' risk of some of the diseases that the diet has found to be protective against [2].

Added Hormones in Beef and Dairy

My participants who were drawn to vegetarianism for health reasons were generally more concerned with the possible human health effects of antibiotic and hormone use in farmed animals than they were about chronic disease risk. According to Health Canada, cows are the only farmed animals for which hormones have been approved for use [17]. Dairy cows in Canada cannot be administered recombinant bovine somatotropin (rBST) to increase their milk production as they can in the United States [18]. But they can be administered progesterone to synchronize their menstrual cycles, reducing the cost of artificial insemination, and the cost of dairy products [18]. Dairy cows also cannot be administered any of the six growth hormones permitted for use in beef cattle. These six hormones, three of which are artificial¹ and three of which are natural², were approved to decrease the cost of beef by decreasing the time it takes for these animals to grow to slaughter size [17].

The degree to which the added hormones, both naturally-occurring and synthetic, present in some animal products—most notably meat and dairy as cited by my participants—is of concern to human health is a contentious issue [19]. Since 1989, the European Union (EU) has restricted the use of natural growth hormones in domestic livestock to therapeutic purposes; banned the use of synthetic growth hormones; and banned the import of hormone-treated meat and meat products [19]. The EU cited the precautionary principle, preferring to wait until studies confirming the human safety of growth hormone residues before permitting their use [19]. This ban, however, was challenged by the United States and Canada, who felt that it unfairly discriminated against imports of their beef products [19]. In 1997, the

¹ The three synthetic hormones that can be used in beef cattle are trenbolone acetate (TBA), zeranol, and melengestrol acetate (MGA). MGA is added to animals' food, whereas TBA and zeranol are implanted under the skin just behind the animal's ear.

² The three naturally-occurring hormones that can be used in beef cattle are progesterone, testosterone, and estradiol-17 β . All are implanted under the skin just behind the animal's ear.

WTO ruled against the EU, finding the ban to conflict with its trade obligations in the absence of a risk assessment [19].

Since then, the EU has commissioned several scientific studies and reports assessing the human health risks of hormone-treated meat [19, 20]. A 2007 report prepared by the European Food Safety Authority concluded that estradiol-17 β is carcinogenic, and may exert genotoxic effects, especially in vulnerable populations such as pregnant women and young children [21]. It also concluded that insufficient information available about the remaining five hormones made it impossible to conduct a risk assessment and to establish maximum residue limits [21]. The report also noted epidemiological evidence of a positive correlation between red meat consumption and hormone-dependent cancers, asserting that the role played by growth hormone residues is currently unknown [21]. The EU maintained its implementation of the precautionary principle, and its ban on domestic and imported hormone-treated meat, despite ensuing trade sanctions imposed by Canada and the United States [19].

In 2009, the EU, Canada, and the United States came to an agreement: Canada and the United States would stop trade sanctions, and the EU could maintain the ban if it increased imports of hormone-free beef from Canada and the United States [19]. Health Canada maintains that added growth hormone residues in beef do not pose a risk to human health [17]. This is because the levels of hormones detectable in these foods are so minimal that they do not significantly contribute to intakes [17]. In fact, the Health Canada website assures consumers that hormone-treated beef is healthier because it is higher in lean tissue and lower in fat than hormone-free beef [17]. In conclusion, it seems that there is insufficient evidence to assert that the added hormones in beef are either safe or unsafe. Few human studies have been done, and the limited evidence that exists has been interpreted differently by scientists in the EU versus in Canada and the United States.

Regarding the hormones in dairy products, the Canadian Food Inspection Agency assessed the levels of progesterone in butter, cheese, and cream in 2010, and found detectable levels in all 737 products sampled [18]. This was to be expected, as these products are high in fat, and progesterone is a fat-soluble hormone both naturally produced by cows [18], and approved for administration to dairy cows to regulate their menstrual cycles for ease of artificial insemination [22]. Although no maximum residue limits for hormones found in dairy products have been established, it was concluded that the amount of progesterone in these foods does not significantly contribute to Canadians' exposure to this hormone [18].

Antibiotics in Meat

Antibiotics—used for the dual purpose of growth promotion and infection prevention—have been approved by Health Canada, and are necessary in most farming operations because of the number of animals contained therein [17]. They are also used to treat existing infections, but because infections spread quickly in confined conditions, and because isolating an individual sick animal to treat her is costly, it is most feasible to treat animals in groups by adding antibiotics to their food [23]. In Canada, antibiotics are routinely administered to beef and dairy cows (only when the latter are not lactating), veal calves, chickens, hens, and turkeys, and less frequently administered to farmed fish, rabbits, and deer, among others [23].

A report prepared for Health Canada in 2002 assessed the human health impacts of using antibiotics in farmed animals [23]. It concluded that current uses of antibiotics in farmed animals significantly contribute to antibiotic resistant bacteria [23]. This is a serious problem because resistant bacteria can directly infect humans through food-borne illnesses, and can spread their resistance to human bacterial strains [23]. Furthermore, mutations that cause resistance to one antibiotic tend to produce resistance to other antibiotics [23]. The report concluded that the “precise magnitude of the public health impact is unknown,” but that antibiotic resistance in bacterial infections originating in farmed animals is a serious problem [23]. A 2011 study of 136 meat samples in the United States found that almost half contained *Staphylococcus aureus* bacteria [24]. Ninety-six percent of these strains were resistant to one antibiotic, and 52% were resistant to three or more classes of antibiotics [24].

Every year, the 7 billion farmed animals in the United States alone produce 1.4 billion tonnes of waste—about 5 tonnes per US citizen [25]. Typically untreated, these wastes contain nitrogen and phosphorous compounds in high concentrations, as well as antibiotics, and over 100 different types of bacteria transferable to humans [25]. This poses a threat to human health, and to the environment, the latter of which is addressed next [25].

Vegetarianism and the Environment

A 2006 report by the Food and Agricultural Organization of the United Nations found that animal agriculture is a significant contributor to global climate change, contributing more to climate change than all forms of transportation on Earth, combined [26]. This makes sense when put into perspective: Worldwide, the farmed animal population outweighs the human population by five times [27]. Furthermore, the amount of grain that it takes to feed farmed animals in the United States alone could feed 840 million humans on a plant-based diet [28]. As such, animal agriculture is a significant

contributor to land degradation, water shortages, loss of biodiversity, and significant pollution [26]. It also contributes 65% of human-generated nitrous oxide emissions and 37% of human-generated methane emissions; these gasses are respectively 296 and 23 times more potent in their contribution to climate change than carbon dioxide [26].

Meat and dairy products are responsible for the majority of the environmental burden of food production, and lacto-ovo-vegetarian diets require significantly less energy, land, and water resources than meat-based diets [27, 29]. Vegan diets have an even smaller environmental footprint [29, 30]. To put things into perspective, producing animal protein takes, on average, 11 times more fossil fuel than the same amount of plant protein [27]. This amount is 4 times greater for chicken, and 40 times greater for beef, compared to grain [27]. Animal protein takes 4 to 26 times more water to produce equivalent amounts of soy protein, and 100 times more water to produce equivalent amounts of grain protein [27, 30]. The land required to produce animal protein, in terms of animal feed alone, is 6 to 17 times greater than that required to produce soy protein [30].

Vegetarianism and Animal Welfare

Organic Animal Products

My research indicated some confusion about organic certification. This is understandable, especially when it comes to animal products; the definition spans more than 10 pages of a Government of Canada publication [22]. Unfortunately, this publication does not use language suitable for a layperson, and especially not for someone unfamiliar with animal farming. Furthermore, it's not always obvious when organic standards differ from industry standard recommendations, as they are not laid out side-by-side. Much research was done in order to clarify these standards.

In short, organically certified meat, dairy, and eggs require the animals from which they are taken to eat organically-grown food [22]. Food additives must also be organic, and animal-derived food additives must be taken from other organically-raised animals and free of risky tissue such as brain, eye, and spinal cord [31]. Hormones cannot be used to stimulate growth, or to synchronize the menstrual cycles of female animals [22]. Genetic engineering cannot be used in animal breeding or embryo transfers [22]. Antibiotics may be used to treat sick animals, but are not allowed to be used to stimulate growth [22]. When antibiotics are used to treat a sick animal being raised for its meat, its flesh cannot bear the organic label, and it must be removed from the herd [22]. When antibiotics or hormones are used to treat sick dairy cows, their milk cannot be sold while they are being treated, and for a period of weeks

thereafter [22]. If a dairy cow requires treatment more than twice in a year, her milk cannot bear the organic label, and she must be removed from the herd [22].

Current organic standards have little to do with the ways that farmed animals are treated; yet they do represent a small improvement in comparison to conventional recommendations [22]. Much of this is because the Standard Code of Practice in Canada contains only recommendations; they are neither required nor enforced—with one exception: If animal cruelty is reported or suspected [32, 33].

Highlights of the organic standards, some of which illustrate similarities and differences with the recommended code of practice, are outlined here:

- While natural methods of reproduction are encouraged, artificial insemination is permitted in organic animal farming [22]. This is a painful process that requires restraining an animal while inserting an insemination rod into her vagina and threading it through her cervix [34].
- Animals are not permitted to be continuously tied with rope or chain, although lactating cows are an exception [22].
- Beef cattle must be provided access to pasture during the grazing season and weather-permitting, but they may be confined in feedlots for the timespan deemed necessary to optimize growth [22, 35]. This timespan typically lasts one third to one half of the animal's life [36].
- For birds, battery cages are not permitted, although there are no restrictions on other types of cages, such as colony cages and aviaries [22, 37].
- Laying hens may be confined indoors from the day their bodies begin to produce eggs until “peak production,” which occurs approximately 4 to 6 weeks later [22, 38].
- Organic standards forbid the use of electrical prods and allopathic tranquilizers to transport animals to slaughter and otherwise; these are both permitted for conventionally-raised animals [22, 32].
- Pain-killers are optional when performing standard operations such as: Removing the toes and beaks of birds; cutting piglets' teeth; removing lambs' & pigs' tails (removing cows' tails is only allowed as veterinary treatment); branding; ear-tagging; removing cows' horns & horn buds (anaesthetics/sedatives are required in dairy cows); and castrating piglets (must occur within first 2 weeks), lambs & calves [22]

Eggs: Conventional and “Cage Free,” “Free Run,” and “Free Range”

Currently in Canada, humane labels on chicken’s eggs are merely marketing terms that are neither regulated nor enforced outside of British Columbia (BC) [37, 39]. In BC, “free run” and “free range” egg labels are regulated by industry and indicate that producers have met recommendations that parallel industry standards [33, 39]. While this may seem unnecessary, these recommendations are not mandatory, and are enforced only if animal cruelty is suspected or reported [33, 39].

In BC, “free run” eggs are taken from hens raised indoors on floor barns [33, 39]. “Free range” eggs are taken from hens with access to the outdoors [40]. Yet there are no specifications regarding the size of the outdoor area, or the number or size of openings in the barn for animals to access this area [33, 39]. Neither label indicates air quality requirements; water can be withheld for up to 12 consecutive hours; and there is no requirement for perches or nesting and dustbathing material [33, 39].

In all other provinces, these terms are “murky” with much wiggle-room as a Canadian industry publication boasts [37]. The author explained the loop-holes in numerous definitions of the term “cage free,” even stating that the word “cage”—often left undefined—leaves room for interpretation because the public may not be aware that battery cages are only one type of cage used by industry [37].

To further complicate matters, a 2015 study was the first in Canada to compare the welfare of hens housed in cages versus floor barns (i.e., “free run”) [41]. According to the authors, previous studies found uncaged birds to have higher rates of mortality, feather-pecking, and other health problems; yet cage-free conditions increase hens’ opportunities to nest, perch, forage, dustbathe, and perform other natural activities [41]. Nine caged flocks were compared to 8 uncaged flocks on three indicators of animal welfare: prevalence of healed keel bone fractures, feather scores, and cumulative mortality [41]. The average size of these flocks was 15,194 and 8,208 birds, respectively [41]. Feather conditions were the same in caged and uncaged birds, and the authors surmised that this was because all participating farms practiced beak-trimming, the searing off of the end of a bird’s beak in order to prevent it from pecking other birds [41]. Keel fracture prevalence was 25% in caged hens, and 48% in uncaged hens [41]. The keel bone is equivalent to a human sternum. Mortality was also significantly higher in uncaged hens [41]. This study demonstrates that even if these labels were regulated and enforced, the decision to purchase uncaged chicken’s eggs is not straightforward: Fracture risk and mortality must be weighed against the increased possibilities to engage in natural activities.

Additionally, there are industry-standard practices that take place regardless of “free run,” “free range,” and even organic status. Hens often have their toes and beaks seared off with a blade or laser without pain-killers, as was practiced in all 17 aforementioned farms in Ontario [22, 41]. Despite their natural life span of 5 – 11 years, most hens in Canada are killed after one year when their egg production becomes unprofitable [40]. Furthermore, all male chicks in the egg industry, whether born into “free run,” “free range,” or organic facilities, are killed at birth [42]. This is because these animals are bred strictly for their ability to lay eggs, and do not grow quickly enough to be profitable for their meat [40, 42]. Methods used to kill male chicks include gassing with carbon dioxide, cervical dislocation, and live grinding in a meat macerator [42].

Dairy: Conventional and Organic

According to Dairy Farmers of Ontario, dairy cows are kept pregnant for 9 months of every year of their lives, with the exception of their first 15 months of life when they are too young to become pregnant [43]. First impregnated at 15 months of age, a dairy cow’s pregnancy is the same length as a human's [43]. Artificial insemination is typically used in conventionally-raised cows, and permitted in organically-raised cows as well [22]. It is an uncomfortable process that requires restraining the animal to insert an insemination rod into her vagina and cervix [34]. According to Penn State’s College of Agricultural Sciences, farmers are increasingly moving away from hiring professionally trained individuals to perform this procedure, despite the difficulty involved [34].

Each cow gives birth to her first calf at age two [43]. Her calf is allowed to nurse, but is taken away from her within 24 hours [43]. This is done for several reasons: Dairy cows have been bred to produce significantly more than what her calf can drink, increasing her risk of developing mastitis if her milk is not fully expressed twice daily [44]. Mastitis is a painful condition characterized by inflammation of the mammary gland and often caused by bacterial infection. Second, when the calf drinks its mother’s milk, this reduces what can be sold for human consumption [44]. Finally, minimizing the time the mother has to bond with her calf reduces separation anxiety when her calf is taken away [44]. Her milk is expressed for 10 months thereafter [43]. This is followed by a 2-month “drying off” period where they do not milk her as she prepares for her next birth, which occurs one year after the previous [43]. Milking her right before giving birth reduces her lactation for the subsequent pregnancy and is therefore not economical [43]. Some cows last up to 10 of these cycles, but 4-5 is more typical due failure to conceive again; mastitis; lameness; or milk production that does not justify the cost to feed her [43, 45]. Dairy cows are subsequently sold as hamburger meat, ground beef, beef jerky, ribs, pet food, and canned and frozen

beef products [46]. Female calves born into the dairy industry have the same fate as their mothers. Male calves are killed or sold as veal [47].

The aforementioned practices occur on dairy farms regardless of organic status, although the food and feed additives given to organically-raised dairy cows must be certified organic, and they cannot be administered progesterone to synchronize their menstrual cycles [22]. Organic standards typically do not allow animals to be continuously tethered, but dairy cows are exempt from this standard and may be kept tied while they are lactating, typically a period of 10 consecutive months each year [22].

Summary

Vegetarian diets reduce animal suffering, have a lower environment impact, are healthful and nutritionally adequate, and may help prevent and treat diseases causing significant morbidity and mortality in Canada. As the prevalence of vegetarian diets increases, Dietitians and other health care practitioners may see more patients and clients who follow these diets, or are looking to follow these diets. Such individuals may have a number of reasons for wanting to become vegetarian.

Reasons for Becoming Vegetarian

Both quantitative and qualitative studies have explored people's motivations for adopting a vegetarian diet or lifestyle. Some sought to determine respondents' reasons for becoming vegetarian as a primary objective; others reported these reason(s) despite alternate main objectives. Most studies on this topic were quantitative in nature, typically asking vegetarian participants to indicate their main reason for adopting a vegetarian diet from a multiple-choice list [48, 49], or to evaluate the importance of reasons using Likert scales [9, 50-53]. One study asked participants to indicate both their main reason for initially adopting the diet, as well as their main reason for currently maintaining it [48]. Participants were typically asked to choose from lists that almost always included health reasons, ethical reasons (this typically lumped animal welfare and animal rights), and religious reasons, and sometimes political reasons, taste reasons (such as sensory disgust towards meat), and family values. In some studies, environmental and animal rights/welfare treated separately [12, 50-52]. In others, "ethical" reasons were collapsed into one category to compare people motivated by reasons external to the self (e.g., animals, environment), with those motivated by reasons internal to the self (e.g., health, weight loss), on various dimensions [9, 48, 49, 53].

Motivations for adopting a vegetarian diet were overwhelmingly similar amongst all of the studies: Health and/or animal rights/welfare describe the majority of people's main reason for their

vegetarianism. The latter reasons, concerning animal rights and/or welfare, were labeled “ethical” reasons in most studies. Yet there were significant variations from one study to the next in the proportions of people citing these reasons. A 1999 survey of over 600 University students and staff in the United States found that the 9% who were vegetarians cited the following reasons: 50% health, 10% ethical (animals), 9.2% environmental, 11.5% religious, and 20% all reasons [12]. In a more recent study, vegetarians cited 61% ethical, 22% health, and 17% mixed primary motivations for their lifestyle [48]; in another, vegetarians cited 43% ethical, 19% health, 32% both, and 6% other motivations [49]. In one recent study on vegans, 17% cited health and 83% ethics as primary motivations for their lifestyle [9]; in another, 47% cited health, 40% animal, 9% religion, 2% environmental, and 2% family values as their primary motivations [54]. All in all, health and ethical reasons predominate, with ethical motivations ranging from 10% - 83%, and health motives ranging from 17% - 50% of samples. Yet not all opinions given by vegetarians in response to questions about their dietary practices should be interpreted as *reasons* for choosing a vegetarian diet [55]. Wilson, Weatherall, and Butler’s analysis of online discussion forums suggested that health reasons for vegetarianism are often provided as arguments for vegetarianism in response to anticipated resistance; thus, there may be fewer health-motivated vegetarians than some studies suggest [55]. One study found some indication of “sloganizing” when asking vegetarian participants questions on an online message board [56]. To sloganize is to make a short, memorable, catchy phrase or tag-ling of something in order to draw attention to the importance or benefits of something.

Dynamic Vegetarian Motivations

Categorizing vegetarian motivations using quantitative methods may diminish the representation of people with more than one reason for becoming and staying vegetarian, and overlook the possibility that these motivations may weigh differently throughout their lives. Qualitative studies offer that few vegetarians maintain the same motivations and diets throughout their vegetarianism [57], with the majority of vegetarian women in one study eating fewer animal products over time as they learned about nutrition and “factory farming” [58]. New vegetarians are likely to cite monothematic motivations (i.e., one motivation) and to choose diets on the less strict spectrum of vegetarian diets [57]. When Larsson *et al.* categorized vegan youths according to the strength of their convictions about, and likelihood to stick with, the lifestyle, and found these categories to be fluid—one could move between them [59]. As such, reported motivations for vegetarianism provide us with a snapshot in time.

“Health” and “Ethical” Vegetarians’ Motivations

Vegetarians primarily motivated by ethics typically adhere to the diet for longer than those primarily motivated by health [9, 48]. Although one study found that motivations for becoming vegetarian (neither health nor ethical motivations) did not predict successful adoption of a vegetarian diet, ethical motivations were found to predict successful cutting out of a food group—which food group(s) this was relevant to was not mentioned [53]. Those who originally become vegetarian for ethical reasons are also most likely to maintain this motivation throughout their vegetarianism [48]. “Health” vegetarians are more likely to believe that certain emotions are unique to humans, and to perceive greater emotional dissimilarity between humans and both pigs and dogs [49]. They are also less likely to be offended, disgusted, nauseated and repulsed by meat than “ethical” vegetarians [49]. While health- and ethically-motivated vegetarians did not differ in overall nutrition knowledge, “ethical” vegetarians were more convinced of their vegetarianism, and ate fewer animal products than those primarily motivated by health [48]. While rarely an initial motivator for transitioning to vegetarianism, environmental sustainability became important to both “ethical” and “health” vegetarians in one study [60].

Vegetarians’ and Semi-Vegetarians’ Motivations

Studies exploring the motivations of vegetarians and semi-vegetarians found some differences between them. De Backer & Hudders found that increases in animal, ecological, and taste motives predicted vegetarianism, while increases in health motives predicted semi-vegetarianism [50]. Rothgerber distinguished between strict and semi-vegetarians by recruiting self-identified vegetarians, asking them to identify from a list of meats (fish, pork, etc.) those they would “readily eat,” “reluctantly eat,” or “refuse to eat” [49]. Those who indicated “readily” or “reluctantly” eating any meat were classified as semi-vegetarians, and found to be less motivated by ethics, less disgusted by meat, and enjoyed meat’s hedonic aspects more, than strict vegetarians [49]. In this study, there were no differences between semi- and strict vegetarians’ beliefs about human-animal emotional similarity [49]. The author did not report on whether differences existed between those who “readily” versus “reluctantly” ate meat.

Current and Former Vegetarians’ Motivations

Ethical motivations—including animal rights, environmental, and political values—were more important to current vegetarians than former vegetarians [51]. Health was also more important to current vegetarians [51]. Current vegetarians were more likely to see food choices as impacting animals, political values, and the environment [51]. Barr and Chapman found that former vegetarian and non-vegetarian women were more likely than vegetarian women to ascribe positive attributes to meat and dairy

products (e.g., nutrient content) [58]. Furthermore, former vegetarian and current vegetarian women were more likely to ascribe negative attributes to meat and dairy products (e.g., presence of contaminants) [58].

Generational Differences in Motivations

Health was a significantly more important motivation for vegetarians over age 41 than it was for vegetarians under 40 [51, 52]. Health motivated vegetarians who had experienced a health problem themselves tended to be older and to have adopted the diet after a disease diagnosis [61]. Health motivated vegetarians looking to prevent future disease tended to be younger [61]. Vegetarians under the age of 20 were more likely to have adopted the lifestyle for animal or environmental reasons [52]. A study on mainly non-vegetarian Australians found that younger people are more likely to agree with animal or environmental reasons for vegetarianism, whereas older people are more likely to agree with health reasons [13]. Younger people were also more likely to be contemplating eating a plant-based diet [14]. Supporting this, all of the vegan youth in two recent qualitative studies had become so for animal rights or welfare reasons [59, 62]. The latter studies used small samples and non-representative sampling methods, but supported the notion that younger people are less likely to adopt such a lifestyle for health reasons.

Gender Differences in Motivations

One 2008 study found that 65% of vegan and vegetarian women, but only 15% of vegan and vegetarian men, cited compassion towards animals as a reason for avoiding meat; women were also twice as likely as men to cite environmental reasons for avoiding meat [63]. In both current and former semi-vegetarians, vegetarians, and vegans, women were significantly more motivated by health and environmental issues than men [51]. Yet in contrast to the previous study, this latter study found no gender differences in the importance of animal rights nor political motives [51]. All aforementioned studies on vegetarians included significantly more female than male participants. In the general population, however, men eat more meat than women do [64], are less likely than women to be interested in vegetarianism [13], are less likely to be vegetarian, and are more likely to derive their gender identity from meat consumption [64].

Limitations of the Aforementioned Studies

One limitation of many previous studies is their tendency to over-represent middle-aged, female, well-educated, and Caucasian vegetarian participants. While it is possible that this may be the profile of a “typical” or “average” vegetarian, it also ignores vegetarians who are young or old; who are male; who

are less educated; and who are non-white. Under-representation of these groups of vegetarians in research may offer a somewhat skewed view of the reasons for adoption. It may also inhibit efforts to promote vegetarianism to a broader public.

The Transition to a Vegetarian Lifestyle

Mendes described the ways in which the transition to a vegan diet can be described by the Transtheoretical Model of behaviour change [65]. All of my participants were in the contemplation, preparation or action stages of becoming vegetarian or vegan: The contemplation stage is when people become aware of veganism and consider whether it may fit into their lifestyle [65]. The preparation stage is when a person decides that they would like to become vegan and intends to take action [65]. The action stage is when a person is no longer eating animal products [65]. Some had previously made it as far as the action or maintenance stages when they relapsed: The maintenance stage is when a person is working to continue excluding animal products from their diet and their goal is not to relapse; the longer in this stage a person is, the less likely they are to relapse [65]. The termination stage is when the person feels they are no longer in danger of relapsing [65].

Factors facilitating the adoption of a vegetarian diet may include a significant life change (such as starting college, having a divorce, or moving to a new area), and the receipt of information about the health or ethical implications of vegetarian diets [61]. New vegetarians are more likely to have only one reason for adoption of the lifestyle, and are more likely to adopt diets on the less strict spectrum of vegetarianism [66]. Vegetarian diets often follow a trajectory in which additional motivations to maintain the lifestyle, and/or eliminate more animal products, are adopted over time [60]. Some people abruptly adopt a vegetarian diet—typically as children or young adults—after making the animal-meat connection [61]. The majority of vegetarians transition slowly, gradually reduced their intake of animal products, typically starting with red meat, then chicken and fish, and finally dairy products and eggs [58, 61]. The transition to vegetarianism may be slightly different for those adopting the diet primarily for health, as compared to ethical, reasons [61].

Larsson *et al.* described the process of becoming vegan in adolescence, identifying three “types” of vegans with differing degrees of conviction and likeliness to stick with the lifestyle [59]. A “Conformed Vegan” wished to fit in with vegan friends, was not convinced of their veganism, and most likely to drop the lifestyle [59]. An “Organized Vegan” was convinced of their veganism, saw it as a large part of their identity, was likely to engage in public demonstrations, and often felt stigmatized by the media [59]. An “Individualistic Vegan” was confident and secure in their identity (which was not tied to veganism), felt

little desire to associate with other vegans or convince anyone of veganism, and was most likely to stick with veganism [59]. These stages were categorized as fluid, with vegans typically moving from “Conformed” to “Organized” or “Individualistic” [59]. Staying vegan among adolescents and young adults requires social support from friends and family [62]. Participation in the punk subculture was also helpful in maintaining veganism [62].

Successful transitions to vegetarianism were associated with lower positive attitudes towards meat’s desirability, taste, and pleasantness [53]. This may be related to the finding that many vegetarians’ negative reactions to meat are caused by their moral beliefs about meat-eating [67]. Ethical motivations, greater intentions to avoid a food, greater intentions to choose alternatives to that food, and lower positive attitudes towards that food, were found to be predictors of successful behaviour change [53].

Barriers to Becoming Vegetarian

Studies on the barriers to becoming vegetarian were small in number. Despite the exploratory nature of the topic, most studies on the barriers to vegetarianism are quantitative in nature. In 2002, Lea and Worsley looked at Australians’ perceptions of the barriers (and benefits) to adopting a vegetarian diet using a questionnaire [13]. Almost 40% of those polled reported being “somewhat” or “very” interested in vegetarianism [13]. The most commonly cited barriers were liking the taste of meat; being unwilling to change their diet; believing humans are “meant” to eat meat; having a family that eats meat; and needing more information on vegetarian diets [13]. Women were more likely to see unwillingness of their family/spouse/partner to eat vegetarian food as a barrier, and helping animals as a benefit [13]. The oldest cohort was more likely to see a meat-eating family as a barrier, and greater dietary variety as a benefit [13].

A few years later, the same researchers asked Australians about the barriers to eating a plant-based diet, but divided them into groups based on the Transtheoretical Model’s stages of change: Those in pre-contemplation were not considering changing; those in contemplation/preparation were considering changing (this is where my participants would fit); and those in action/maintenance were already eating a plant-based diet [14]. A plant-based diet was defined as “an eating pattern dominated by fresh or minimally processed plant foods and decreased consumption of meat, eggs, and dairy products... This does not necessarily mean a vegetarian diet” [14]. Those in contemplation/preparation were more likely than others to feel that lack of information on plant-based diets; lack of knowledge on plant-based meal preparation; and not knowing what to eat instead of meat were barriers to change [14]. They were also more likely than those already eating a plant-based diet to see convenience; family

preferences; missing certain junk foods; and the availability and cost of plant-based foods at grocery stores and restaurants as barriers [14]. Those in pre-contemplation were more likely to experience barriers such as no desire to change habits; not wanting to be seen as strange; not believing plant-based meals to be filling or tasty; and thinking that humans are “meant” to eat lots of meat [14]. Of interest, those interested in changing their eating habits were younger than in the other groups, yet, in contrast to other studies, no more likely to be female [14]. This study showed that those interested in vegetarianism may face different barriers to change than those who are disinterested [14].

Graça, Oliveira, and Calheiros also quantitatively studied willingness to adopt plant-based diets in Portugal, and found three “clusters” of people: A minority who associated meat with death, harm to animals, and disgust, and who tended not to eat it; a larger group who were emotionally detached to meat, associated it with mass production, artificial methods, and food unsafety, and willing to reduce meat consumption to improve health and reduce harm to animals (this is where my participants would fit in); and a group representing about half of participants with emotional attachments to and dependency on meat, unwillingness to change meat consumption, and who denied its impacts on the environment and animals [68]. The former two groups were mostly female, and the third was gender-balanced [68]. This study, and others, indicated that for people attached to meat-eating, exposure to information about the impacts of its production and consumption triggers defense mechanisms framed in pro-meat arguments and self-exonerations [64, 68]. The barriers to change for those willing to reduce meat consumption were not identified.

In a group of people with prediabetes, type 1 diabetes, and type 2 diabetes, 66% were willing to try a plant-based diet for 3 weeks, with those seeking educational resources and more motivated by potential health or weight loss benefits most likely to be interested [69]. Barriers cited by about half of participants were “family eating habits”; “lack of meal planning skills”; and a “preference to eat meat” [69]. Other barriers included cost; “ease of cooking”; and “time constraints” [69]. Health care practitioners were also polled, and while 72% were aware that plant-based diets can be used to treat diabetes, only 32% recommended it to clients [69]. Top reasons cited for this were that the eating pattern is unrealistic or difficult to adhere to and could thus lead to dietary imbalance; low perceived patient acceptance; and lack of clear practice guidelines [69]. A 2015 study suggested that there may be more acceptability and adherence than expected: Vegan, vegetarian, pescetarian, semi-vegetarian, and non-vegetarian diets were compared in terms of their acceptability and adherence, and found equal rates of both amongst all five diets [70]. Furthermore, non-adherent participants ascribed to vegan and

vegetarian diets decreased their cholesterol intake and weight significantly more than non-adherent participants ascribed to non-vegetarian diets [70].

Two qualitative studies on vegan youths did not explicitly seek the barriers to veganism, but found that everyday interactions with non-vegan friends and family, such as living with non-vegan family, and having a “weak vegan network,” made becoming vegan particularly challenging [59, 62]. Specifically, parental concerns about the nutritional adequacy of veganism led to frequent conflicts at home [59]. Furthermore, parents who did not accommodate their children’s desired diets and let them figure it out themselves, was also a barrier for those living at home [59].

Gender Differences in Barriers to Becoming Vegetarian

Meat tends to be depicted as a male food, and a symbol of male virility, and even of patriarchy [71].

Those who value “masculine norms” such as stoicism, toughness, dominance, and emotional restriction eat more meat, and are more likely to justify eating meat, demonstrating that meat is linked with masculinity [64]. In one study, those willing to stop eating meat consisted mainly of women; those unwilling were a more gender-balanced group [68]. The latter group displayed more of a dependency on, and attachment to, meat, and used pro-meat arguments, self-exonerations, and denials of meat’s impacts on animals and the environment to justify their consumption [68]. These findings are similar to another study’s finding that men and women tend to justify eating animals in different ways: Women are more likely to justify meat consumption using indirect strategies such as dissociating animals from the meat they consume, or avoiding thinking about where meat comes from [64]. Men are more likely to engage in direct, unapologetic strategies such as pro-meat justifications, health and religious justifications, and claims that animals are inferior and do not suffer [64]. Men are also more likely than women to believe that humans are “meant” to eat meat [13, 64].

A blind taste test of young people aged 14-30 found that both males and females rated meat as tasting worse as it increased in “typical” red meat flavours and intensity, and that this effect was more pronounced for females [72]. Males are more likely to have pro-red meat attitudes; eat more beef; desire to eat more red meat; and enjoy meat’s hedonic properties than females [64, 72]. In general, males may face more barriers to becoming vegetarian than females [64].

Research Objectives

The purpose of my research is to provide a rich, detailed description of the lived experience of considering vegetarianism: I hope that my research will shed light on what is involved in the contemplation process, including the reasons why people would like to become vegetarian, and despite those reasons, why people may be been unable to fully commit to vegetarianism. I hope to enrich my readers' and my own understanding of the barriers faced by those contemplating this lifestyle change.

I was specifically interested in the experiences of prospective vegetarians. I defined prospective vegetarians as self-identified non-vegetarians contemplating changing to a vegetarian diet, either at the time I interviewed them, or at some point in the future. As such, I did not speak with members of the general population, nor did I speak with current vegetarians.

This research is unique in the sense that it is the first to study a prospective vegetarian population. Past studies have involved current and former vegetarian participants. It is also the first qualitative study to report on the barriers to becoming vegetarian, and offers the first application of phenomenology to this transition. It supports previous research and fills gaps in the literature by offering further insights into reasons for adopting a vegetarian diet and/or lifestyle, the transition process, and the difficulties faced by those who would like to, or are attempting to, make this change. The findings of this study can provide insights to people interested to promote vegetarianism.

III. METHODOLOGY: INTERPRETIVE PHENOMENOLOGY

Interpretive Phenomenology: A Philosophy and a Research Approach

“Not everything that can be counted counts, and not everything that counts can be counted”

- William Bruce Cameron

Made popular by Descartes, positivism is the worldview that truth and reality are objective and completely external to human perceptions. In an attempt to legitimise human experience, and reject positivism and Cartesian mind-body dualism, Edmund Husserl began a different way of thinking, and is considered by many to be the founder of phenomenology [1, 73, 74].

Husserl believed that the pure essence of a phenomenon or experience could be understood by “bracketing” out (setting aside) pre-existing beliefs, knowledge, and ideas, about it [74]. Descriptive phenomenology is a research methodology that applies this philosophy and rests on this assertion [74]. Yet one of Husserl’s students, Martin Heidegger, asserted that setting aside pre-existing beliefs and knowledge is not possible; we cannot escape that fact that our personal experiences and opinions shape the way we view the world [74]. Furthermore, he asserted that pre-existing ideas and experiences are rather essential to understanding a phenomenon [74]. This philosophy viewed the world through a socially-constructed, interpretivist lens in which people are always interpreting the world around them, deriving truth from that reality [1, 74]. Interpretive phenomenology thus became a means of using interpretation and perspective to understand phenomena: events and experiences that happen to us [74, 75].

Phenomenology is a qualitative research approach in the human sciences that is deeply rooted in philosophical foundation [76, 77]. It involves an exploration of the lived experience of some phenomenon, or occurrence [75]. Phenomenological researchers endeavour to understand the ways in which individual participants, and participants as a collective, make sense of that experience [76-78].

This study looked at the lived experiences of participants considering adopting a vegetarian diet. A collection of individual perspectives provided the foundation on which the researcher came to an understanding of the reasons for, and the barriers, to, becoming vegetarian [1]. Interpretive phenomenology was used in this study because the topic is exploratory in nature, and rich, in-depth accounts of the phenomenon of transitioning to vegetarianism were sought [76].

Selecting Research Participants

In phenomenological research, participants are selected based on whether they have the unique experience sought by the researcher [76]. My interest was in the perspectives and experiences of prospective vegetarians: people considering, but not living, a vegetarian lifestyle. Some of my participants were interested in adopting, or discussed their consideration of, a vegan lifestyle.

“Vegetarian(s)” will be used to collectively refer to all types of vegetarians *and* vegans; “vegan(s)” will be used to refer exclusively to vegans. This is because all vegans are vegetarian, but not all vegetarians are vegan.

I recruited prospective vegetarians because I was particularly interested in the barriers faced by people who *want* to change their behaviour. I chose not to interview the general public because I was not interested in the barriers faced by those who have never considered, or who are disinterested in, vegetarianism. I also chose not to interview vegetarians, as this would only represent the experiences of people who successfully overcame the barriers they faced. I wanted to hear from people in the midst of the contemplative process whose future lifestyles may or may not involve vegetarianism.

Post-secondary studies is a time when people may be exposed to new and different views on eating, while simultaneously becoming personally responsible for the cooking and preparation of their food. A 1998 study on vegetarians found that many of them had adopted the lifestyle during a significant life transition such as going to college [61]. I was interested in the experiences of post-secondary students, and made an effort to recruit participants from different faculties; I wanted to speak with people who may, or may not, be studying something related to vegetarianism. In order to maintain some degree of homogeneity, I chose to include people from age 18 to 35 years old [79].

Participant Recruitment

To recruit participants, I hung posters on bulletin boards in various buildings around McGill University's downtown and Macdonald campuses. Three poster designs were created with the aim of attracting students in diverse fields of any gender. People interested in participating contacted me by e-mail or text message. Prior to arranging an interview, I communicated with them to determine whether they fit the inclusion criteria, something that proved important due to my exclusive interest in prospective vegetarians.

Inclusion criteria

- Students (undergraduate & graduate) and post-doctoral researchers.
- 18 – 35 years old, inclusive.
- Eat (any type of) meat frequently or occasionally.
- Currently considering transitioning to a vegetarian lifestyle, at present or in the future.
- Comfortable communicating in English.

Exclusion criteria

- Self-identified vegetarians, regardless of amount and/or frequency of reported meat consumption
- Not looking to change to a vegetarian lifestyle.

Conversations with Participants

In phenomenological research, participant narratives can be collected through face-to-face interviews, or written or recorded accounts [80]. A combination of these may also be used [75]. While more time-consuming, interviews offer descriptions with heightened depth, nuance, and richness, and I chose to conduct in-person interviews with my participants [76].

Between February and June 2014, I conducted one in-depth, semi-structured individual interview with each of ten participants. These took place in Montreal, Canada at a café or a university campus, depending on what was convenient for both the participant and me. I used a semi-structured interview guide (see Appendix A) to provide an outline while enabling flexibility to probe emergent topics and themes, and allowing for a relaxed feel to conversations.

All conversations were digitally recorded, and unfortunately, technological mishaps deemed two and a half recordings unusable. My phenomenological enquiry is based on the data in the remaining seven and a half transcripts. Fortunately, richness of data, and not sample size, is instrumental to gaining an in-

depth understanding in phenomenology [1, 74-77]. It is recommended that phenomenological researchers recruit at least three participants, not for statistical purposes, but because fewer would be excessively challenging for the researcher to develop findings common to participants [76, 80, 81]. In qualitative research, it is fallacious to assume that a large sample size is necessary to produce generalizable results [76]. As such, seven and a half transcriptions offered more than enough data to conduct a thorough enquiry.

I began conversations with the least sensitive topics in order to build rapport. Participants helped guide conversations, and tangents were encouraged and explored. To make questions more relevant and easier to understand, I modified the interview guide after each conversation using my observations and participant suggestions. Many of the questions I asked were not in the guide, and explored topics raised by my participants. Conversations ranged from one and a half to three hours long; I was satisfied that these interviews met the requirements for rigorous phenomenological research.

My Identity

I chose not to reveal my status as a nutrition student (except in one case, by accident) or a vegan out of concern that it would affect the way participants related to me. In retrospect, I am glad that I did not disclose my field of study; my experience doing so in everyday life suggests that it can make people feel uncomfortable and judged discussing their eating habits. Some of my participants, but not all, asked about my eating habits before or during our recorded conversation. I told them that I had no problem telling them after the interview, in the hopes of not affecting their responses.

There are topics I sometimes feel uncomfortable discussing with people based on their eating habits, often out of fear of being judged. Everyone is different, however, and I am uncertain what my participants perceived about my lifestyle, and how that affected their interactions with me. At the end of one interview, a participant mentioned that she had assumed I was vegetarian because she felt it unlikely that a non-vegetarian would be very interested in this topic. What my participants were willing to say, and their choice of words, may have differed depending on their perception of my eating habits.

That said, there are other factors affecting a person's openness and reticence during a conversation besides their conversational partner's eating habits and lifestyle. A researcher's "phenomenological attitude"—active listening skills; ability to inspire feelings of comfort and trust; and non-judgemental attitude—are of significant importance [1, 82]. That my participants felt at ease talking with me was my ultimate aim as we conversed.

Data Analysis

Use of the term “methodology” to describe this chapter indicates that phenomenological research does not follow a prescribed or controlled process [83]. Phenomenological data analysis is not strict, procedural, or rule-oriented, but responsive based on the research question [84]. Van Manen invites us to see phenomenology as a “way toward human understanding” [85]. As such, there are multiple ways to approach data analysis in phenomenological research [83].

Coherent application of the philosophy—using data collection methods and procedures consistent with phenomenological theory—is a crucial part of phenomenological data analysis [76, 77, 86]. This is so important because phenomenological research does not follow a method, but is rather an approach to research based on and rooted in philosophy [1, 76, 77, 80]. Philosophy is the foundation for all steps of the research process, and makes phenomenology what it is: rich, nuanced, and adaptable. Numerous steps in the research process (interviewing, transcribing, listening to audio recordings, and grouping similar interview excerpts) familiarized me with the data, and facilitated the development of “findings,” descriptions of the phenomenon in question.

Interview Transcription

Interview transcription by the researcher facilitates enhanced understanding through engagement with participant narratives, and eases the transition to the next steps of analysis [76]. As all phenomenological approaches emphasize the importance of in-depth involvement with the data, I transcribed each interview myself, avoiding transcription software. I transcribed interviews verbatim, with the exception of the placeholders “like” and “kind of” when they detracted from understanding the speaker or the context.

Throughout the transcription process, personal notes were made indicating instances where I interrupted participants, missed their cues to explore a topic, felt nervous or apprehensive, or laughed. This practice enhanced my self-awareness throughout the interview process. When transcribed immediately as some interviews were, this helped to improve the quality of subsequent interviews.

Developing Findings: Considering Parts and Whole

Van Manen suggests three different approaches to uncovering themes in phenomenological research:

a) Attending to the text as a whole, b) Reading the text multiple times highlighting sections that appear significant in describing the phenomenon in question, and c) Noting the meaning of each sentence in a text in terms of its description of the phenomenon in question [75]. I used a combination of the first two approaches in the initial stages to develop my findings, incorporated the third during latter stages when I started writing, and then went back to using the first and second.

As I read each transcript, I highlighted excerpts relevant to the research questions that stuck out as unique or important to that person's experience or to me, and/or were indicative of a common theme amongst participants. I did not use coding software, and read each transcript multiple times, making notes of my interpretations, impressions, and understandings. Sometimes my interpretations changed as I became more familiar with the narrative; as I came to better understand another participant's experience; or as I searched for the right words to more clearly express my understanding.

I compiled excerpts, notes, ideas and quotes into themes, re-visiting individual interview transcripts when a new theme emerged or when I was reminded of a previous conversation. This involved constantly reflecting on these themes and re-reading my transcripts and the compiled notes, which made it clear when I felt confident in or doubtful of an interpretation. When I doubted my interpretation of a quote, I re-read it in the context of our conversation, and/or re-listened to the recording. Sometimes this resulted in keeping the quote where it was originally placed, and sometimes it resulted in moving it or changing the way I expressed my understanding of the quote. My intention was always to keep my interpretations, and the findings, as close as possible to what I believed to be my participant's intended meaning. As interpretive phenomenology involves the co-construction of knowledge, my interpretations of my participants' narratives add knowledge on the topic—even if someone else would have interpreted them differently.

Language is of significance in phenomenological research, and the words chosen by participants can offer important insights into the meanings they ascribe to things or events [1]. As such, I made an effort to maintain expressions and phrases used by participants, and to look into the meaning and history of some word choices in an attempt to better understand them.

Writing and Re-Writing

Phenomenology as a research methodology is mainly an act of writing [85, 87]. Its purpose is the creation of a phenomenological text [87]. The act of writing, from thoughtful and meticulous selection of words to organization of thoughts, was instrumental to reflecting on my interpretation of my participants' narratives. Writing a variety of different texts helped in organizing concepts, ideas, and thoughts throughout the research process. Portraying my participants' experiences as close as possible to what I believed to be their intended meanings was an exercise in reflecting on our conversations, finding the right words, and reflexivity—described in the subsequent section.

Reflexivity

Reflexivity is an important part of phenomenological data analysis [76]. It has been described in many ways and its implications differ depending on the research philosophy in question [88]. Descriptive phenomenology, based on Husserl's philosophy, asserts that reflexivity involves recognition of the researchers' assumptions, biases, and knowledge, and "bracketing" them—or setting them aside [83]. Interpretive phenomenology, on the other hand, embraces the experiences, knowledge, and biases of the researcher, treating them as inevitable parts of his or her ability to understand the experiences of others [83]. The researcher's goal in interpretive phenomenology is to understand participants from their perspective, while disclosing their own identity, experiences, and worldview—as far as is relevant to the research topic—to readers [86]. The researcher's awareness of the ways in which his or her identity, pre-existing beliefs, and knowledge interact with the participants' narratives helps to bring about the co-construction of knowledge and a fresh understanding of a phenomenon [89]. Reflexivity thus involves the researcher's continuous consideration of and transparency about the ways in which his or her involvement in the research process affects all stages of the research [89].

For me, reflexivity involved constantly considering my status as a nutrition student, a vegan, and an animal rights and environmental activist—and considering the ways in which each of these distinct but interconnected identities and belief systems could and did affect this research. Throughout the research process, and especially during interviewing, I considered the ways in which my presentation and experiences as a middle-class mixed-race female graduate student affected the ways in which my participants perceived and interacted with me, and the ways in which I interacted with them and interpreted their narratives. Sharing my motivations for doing this research with my readers, and writing about my personal experiences, reasons for, and barriers to becoming vegetarian and then vegan,

further contributed to the reflexive nature of this work. Speaking with my supervisors about our respective interpretations of my participants' experiences was also instrumental.

When I started interviewing my participants, I became explicitly aware of the discomfort I felt with some topics of discussion. One such topic (and certainly not the only one) came about when some of my participants expressed negative stereotypes that they believed to be true about vegans. Upon conducting and transcribing my first few interviews, I became acutely aware of my tendency to change the topic to diffuse my feelings of discomfort when subjects such as this were broached. Yet I quickly realised that changing the topic was contradictory to achieving my objective of better understanding my participants. For future interviews, I reminded myself of my purpose, and instead tried to consciously relax my body language, ask questions, and attempt to relate to and empathize with my participants. Even when unable to feel truly comfortable on the inside, I felt that my interviews were greatly improved when I "faked" it until I truly did feel comfortable. Despite these efforts, topics I felt comfortable discussing (such as animal welfare abuses) may have been covered more thoroughly.

Throughout the research process, I was highly aware that while I had the experience of contemplating vegetarianism, I had adopted and stuck with a vegetarian lifestyle while my participants had not. I spent much time reflecting on my own feelings, experiences, and beliefs as a former prospective vegetarian and vegan, and made ongoing efforts to relate to my participants' experiences and feelings. Despite these things, I still had continuing concerns about being or coming across as judgemental towards my participants both during the interviews and during the analysis and writing. Talking to other vegans about my research was unexpectedly helpful in this regard, especially so when two of them separately referred to the barriers my participants faced as "excuses." Feeling instantly compelled to defend my participants' struggles and experiences confirmed that I was exhibiting a non-judgemental attitude and trying to understand my participants from their frame of reference. In an effort to maintain this attitude and stance, considering the feelings I had and the language I used throughout the research process was ongoing. My supervisors' comments on earlier drafts of this work were also beneficial to reflexivity.

Interpretation as Fluid

In keeping with the thoughts of Heidegger, all descriptions involve an element of interpretation. As such, I made explicit my motivations, beliefs, and experiences by outlining them in the “Self-Disclosure,” and other sections, of this work. Due to the nature of interpretation, I recognize—as all phenomenological researchers do—that another person doing this enquiry may have interpreted the same descriptions differently [1, 76, 77, 85]. I also recognize that after some time has passed, and my experiences change, I might interpret these descriptions differently. My interpretation of the descriptions I gathered is just one interpretation.

What are known as “results” in quantitative research are referred to as “findings” in phenomenology [1]. The word “result” was defined in the Oxford English Dictionary as follows: “To arise as a consequence, effect, or outcome of some action, process, or design; to end or conclude *in* a specified manner” [90]. The definition of the word “find,” on the other hand, was: “To discover or perceive on inspection or consideration; to perceive or recognize the presence of” [91]. These definitions illustrate a subtle contrast between the terms, the latter embracing the importance of perception and thus better suited to a phenomenological approach.

Interest, Commitment, and Strong Orientation

My interest in behaviour change started while I was studying commerce. I had been interested in examining consumer behaviour so that business decisions could be made to increase profits. When I started studying kinesiology, and then nutrition, I felt that it could be exponentially more valuable to examine physical exercise and eating behaviours, and how to influence them, to improve public health.

When I switched to a vegan lifestyle, I found it to be a rewarding, significant, and relatively easy way to advocate for both animals and the environment. It was around this time that I started hearing stories from others who wanted to become vegetarian; wished to eat more plant-based meals; or had made unsuccessful past attempts at vegetarianism. I had been in their situation, and could relate. At the same time, I sometimes struggled to relate since it had been so long since I personally experienced those challenges; my current lifeworld is somewhat different than that of my pre-vegetarian days.

Exploration of prospective vegetarians’ perspectives seemed to be a great way to better understand them, and thus to help them where they needed and wanted it. How, as a future Dietitian, could I better understand, and become more empathetic towards, people who want to undergo this lifestyle change? How could I help and be supportive? What was their experience like? Such questions about general

lifestyle and behaviour change continue to be of interest to me as a future Dietitian. My interest specific in the transition to a vegetarian lifestyle was both personally and professionally relevant. My continued interest in this topic, and its real-world applicability, resulted in enhanced commitment to my research, and excitement about sharing it with others. A researcher's strong orientation towards his or her topic is essential in a phenomenological study [75].

Generalizability and Transferability

Phenomenological research is exploratory in nature, and the researcher seeks knowledge about the content and meaning of the experience so that he or she can describe it [76]. Qualitative and quantitative research are based on different epistemological frameworks and are uniquely useful in the sciences precisely because they serve different purposes [76]. Qualitative research seeks to answer the question "what's it like?" as opposed to the quantitative research question "how much?" necessitating different evaluative criteria for each [76, 80].

Generalizability can be defined as the extension of research findings from a study conducted on a sample population to the population at large [92]. In phenomenology, this is accomplished by eliciting vivid, detailed, rich descriptions from participants that allows the researcher to come up with an eidetic but general structure for, and meaning of, the phenomenon in question [76, 87]. In this study, I elicited general reasons why people may decide to go vegetarian, as well as provided descriptions of the barrier to becoming vegetarian that those contemplating vegetarianism may face.

Transferability refers to the ability of people in similar contexts to find meaning in the research findings [93]. It is the researcher's responsibility to present enough contextual information to enable such a transfer to take place for readers [94]. Transferability invites readers of research to make connections between the research and their circumstances, interests, topics, questions, practices, and experiences. Through this dissertation, I invite you to reflect on the transferability of my participants' experiences. Depending on your life experiences, this may mean reflecting on your own personal experience considering vegetarianism; modes of activism; and/or people-centred healthcare.

I did not ask my participants to review my text. First, this practice is not required in phenomenological research [95]. Specifically, the transient nature of my topic and population of interest does not lend itself well to participant checking. I spoke with my participants at a very specific point of time in their contemplative process. Since that time, they may no longer be prospective vegetarians, or they may simply feel differently. Finally, having the lived experience of contemplating the transition to a

vegetarian diet helped me to relate to my participants, and to explicate their experiences [96]. Compared to the perspective of someone without this experience, my interpretation may represent their experiences more empathetically and possibly more congruently. This is an asset in phenomenological research [97].

Research Ethics Considerations

Ethics approval was granted in February 2014 by McGill University's Research Ethics Board Office, and extended to enable interviews to take place until June 2014 (see Appendix B). Some of the various bulletin boards around McGill University required permission to post messages on them. In all of these instances, permission was formally sought and granted.

Before meeting, I made potential participants aware of the expected time commitment. When I met each participant to interview her or him, I explained the consent form prior to proceeding. This involved communicating my overall purpose: To understand their experience considering vegetarianism. I made them aware that they could choose not to answer any question, and could withdraw from the study at any time prior to publication of the results. I also gave them the option of including their interview transcript in future research. Finally, I asked for permission to record them and explained the measures I would take to maintain their confidentiality and protect their identity. Written informed consent was obtained from each participant prior to the interview (see Appendix C).

During our conversations, two of my participants shared information that was potentially sensitive or personal in nature and unrelated to the research topic. During these instances, I asked if they would like me to leave that information out of the transcript, but neither expressed concern about it. One participant asked me, at a different time, not to transcribe a small part of our conversation, and this request was honoured. Pseudonyms were used to identify my participants and anyone whom they mentioned by name in all work that I shared with others, including this dissertation and the transcripts I shared with my supervisors. This was done to maintain my participants' confidentiality.

IV. FINDING #1—REASONS FOR BECOMING VEGETARIAN

From most to least important, my participants' reasons for wanting to become vegetarian involved the following: Animal rights and/or welfare; environmental sustainability; personal health; political reasons; and disliking eating meat.

When I asked my participants about their reasons for considering the transition to a vegetarian diet, a number of them pointed out that they rather saw vegetarianism rather as a “way of life” or “lifestyle.” This is in line with previous research in which vegetarians described vegetarianism as a lifestyle [56, 61]. In fact, all of my participants used language suggesting that one can “be” or “become” vegetarian. This is exemplified here, when Islah talks about wanting to become vegetarian:

It's not really a diet; it's a way of life. Cuz a diet would be just about food and health and weight loss and muscles and, you know, body stuff. But no. It would have been a diet to me if it was just because of my body, but it's not. Cuz my first reason is obviously animals. And then, as I said, it's a great choice, so it's really a way of life.

Once adopted, a vegetarian diet may become an end in itself, or may become just one practice amongst many to reflect a lifestyle embodying ideological and philosophical commitments to other people, animals, and the broader environment [56]. One study found that vegetarians donate to animal-oriented charities more often than semi-vegetarians and non-vegetarians, and that all three groups donate equally to human-oriented charities [98]. In line with this research, most of my prospective vegetarian participants were thinking about a number of issues aside from eating meat. Some were volunteering or working at environmental or human rights non-profit organizations. They had put much thought and research into the impact of their day-to-day decisions on themselves, other animals, the environment, and other people. My participants raised concerns about poverty and world hunger; organic and local purchasing; genetically modified organisms (GMOs); and the conditions of workers making their clothing. This passage from my conversation with Ellen exemplifies this thought process: “So I guess what I’m trying to say here is more than a choice to become a vegetarian, is a choice to eat in a way that’s good both for me *and* for the animals and for the economy and for, you know, the environment, all at the same time.”

Ethical Reasons

Most of my participants were motivated to become vegetarian, first and foremost, by concerns about the welfare and/or rights of animals. Environmental sustainability was the second most common ethical motivation. One person was concerned about the impact of meat consumption on human hunger, although it was not a main reason that he was considering vegetarianism.

Animal Rights and Animal Welfare: Similarities and Differences

“Animal rights advocates are campaigning for *no cages*, while animal welfarists are campaigning for *bigger cages*.” – Tom Regan [99]

A Google query on the “difference between animal welfare and animal rights” shows how hotly contested this difference is. Animal welfare organizations often believe animal rights activism to be too extreme. Animal rights proponents often believe animal welfare activism to be not doing enough. To make matters worse, organizations such as the Fur Commission USA, which represents the interests of mink farmers, market themselves as welfarists [100]. Given this confusion, I would like to clarify these definitions for my readers, based on my understanding.

Animal welfare theories are based on the belief that there is nothing inherently wrong with using non-human animals to serve humans. However, their use must be justified; they must be treated well in the process; and they must be killed in a way that minimizes the pain (e.g., when wanted for food, or no longer wanted for rodeos). Whether using an animal for a certain purpose is justified, and what it means to treat an animal well, varies amongst people and organizations. For example, many animal welfare organizations oppose killing an animal for its fur, asserting that fashion is not a justified use of an animal’s life. The goal of animal welfarists is to ensure humane treatment for animals used by humans, although some see animal welfare reforms as one means of stopping human use of animals [101].

Animal rights theories are based on the belief that all animals—humans included—have inherent value and rights that must be respected by others. This includes the right not to have their lives used to benefit another individual or species. In this view, animals are not treated as commodities, objects, or economic units to be used for food, clothing, experimentation, or entertainment. This position accepts that rights are limited, not absolute, and can conflict with one another [102]. An example of conflicting rights is illustrated by an 1882 quote by John B. Finch: “Your right to swing your arm leaves off where my right not to have my nose struck begins” [103]. The goal of animal rights activists is to end the use of

non-human animals by humans. While some theorists believe that animal welfare reforms help animals, others believe that promoting humane animal products is counter-productive [104].

Cited by all of my participants but one, compassion for non-human animals were the most frequently cited and the most important reasons why they were considering a vegetarian or vegan lifestyle. These participants concluded that some form of vegetarianism would align their actions and beliefs. Yet my participants' viewpoints represented a spectrum of opinions about animal welfare and rights: Those whose views were more in line with animal welfare tended to feel okay with eating more animals and animal products; they were more likely to be contemplating pescetarianism. Participants whose views were more in line with animal rights tended to be less okay with eating animals and animal products; they were more likely to be contemplating veganism. No previous studies on vegetarians separated or distinguished between animal rights and animal welfare motivations.

Animal Rights

Lynn, Islah, Odell, Jeremy, and Aaron all felt moral discomfort over killing another animal to eat it. All of them but Aaron—who was solely concerned with animal rights—also expressed distaste for the conditions that farmed animals are typically kept in. In contrast to those only concerned with animal welfare, these five participants felt that killing an animal (to eat it) did not constitute treating it well. Here, Lynn elaborates:

Because I've never actually thought this through, because I never come to a conclusion, but the people who say, "oh, I only buy meat from a farmer that I know, and the cow or whatever has had a fine life, and it was due to die anyways," I don't know how I feel about that. Part of me says, "okay, it makes sense, I mean, you're going to eat it." I don't know; I *guess* it makes sense. But most of me is like, "but you're still killing it and eating it," which I feel might be childish? But I don't know—I don't know.

Lynn mostly felt that killing an animal to eat it is wrong, but down-played her opinion by calling it childish. She struggled to voice her opinion here, which may have stemmed in part from uncertainty about my eating habits. She had been curious from the start, and my decision to tell her afterwards may have contributed to her hesitation to discuss her opinions on animal rights; Lynn had expressed wanting to avoid becoming someone who judges others or makes them feel bad. Lynn was pescetarian when we spoke, and experiencing a lot of guilt about eating fish and eggs. She felt mildly hypocritical eating this way, and felt that becoming vegan was something that she could "stand by," rejecting the cruelty inherent in all animal products, as opposed to a select few.

Islah's family had ten dogs when she was growing up. She has spent a lot of time with animals, including the ones she played with at her grandfather's farm as a child. Yet she did not understand the idea of eating an animal that she could form a relationship with: "All my summers I would just take care of cows and chickens and rabbits and birds. And then I would have to play with them in the morning, and eat them at mid-day. And play with them in the afternoon, and eat them for dinner. So it did not make sense to me [*laughs*]."

The writings of philosopher Peter Singer, and the many moral philosophy courses that he has taken, have influenced Jeremy's eating habits and fuelled his desire to become vegan. He was in agreement with Peter Singer that those who can feel pain and pleasure should have a right not to be killed or harmed. Although he cited many reasons, when I asked him if any of his reasons for considering vegetarianism were more important than others, Jeremy revealed that his answer to that question had changed over time:

The environmental and the rights of the animal are tied maybe. Maybe rights of the animal is more, stronger. But that's a shift for sure, used to be the other way around. Used to be mostly environmental. And then that might have something to do with the fact that that's just less socially, that's an easy way to get out of complicity asking people to consider their own eating decisions. People ask you why you're vegetarian and you say environmental reasons, that's less of an attack on the other person than the rights of the animal, you know? For some reason, for whatever reason, I'm not sure exactly why, but... I think it's because it's easier to *imagine* the cow hanging from its leg with its neck slit than it is to imagine the water supply. Or it's less *emotionally-charged* to imagine the water supply being lower than it needs to be than it is to imagine the cow being [*voice trails off*]... I just own up to the fact that that's the real reason, and the fact that it makes other people uncomfortable doesn't make it not a reason.

Aaron and my recorded conversation was unfortunately only 45 minutes long before my recorder stopped working. Yet his reasons for considering vegetarianism came up early and were solely based on animal rights. This was in contrast to the other participants who typically had more than one reason for their interest in vegetarianism. This quote is long, and may sound familiar from my description of Aaron earlier. In order to address this finding in his own words, I invite you into our conversation:

Over the last year and a half or so, I've been more concerned with, maybe esoteric questions about... where human rights and that kind of stuff come from. Maybe not come from... But what do you base them on. And so I was thinking more about that, and trying to come up with answers of my own... answers that are satisfactory to me. At the *same* time, I was also sort of learning—externally, not for the same reasons—about, so animal intelligence. So one big thing is

that I heard on a radio program about chimpanzees learning sign language, being able to communicate in that way. And so questions of animal intelligence, the ability for animals to emote—so to feel—that kind of thing started to become a little bit more relevant for me. I usually just am dismissive, right? Just, you know—whatever. But I started to think about this a little bit more, and then when you come about with this idea of what do you base human rights on, well it seems like intelligence might be a good answer to that. But if there's a spectrum of intelligence, then it brings up the possibility that animals, or at least certain types of animals, should be just as deserving of at least the same types of respect for rights—some rights, maybe not all, but some—that we usually afford to people. And so that's what sort of got me started on the whole thinking about trying vegetarianism thing to begin with. And then on the other side, when my wife moved to take her new job, she left the cat with me. Okay? But now—now the cat which was typically her cat, and hung around her and that kind of thing, became more attached to me. I started to realise that what I used to just dismiss as a pet—not dismiss, but I didn't pay as much attention to necessarily, certain aspects of the pet's behaviour—I noticed that the cat was starting to seem a lot more emotional or was capable of emoting. And I started to pick up on the fact that it had a unique personality a lot more. And then it got sick, and it *died* and I realised how attached I'd become to it as well, right? Now I have another cat, she's probably even more affectionate, and displays her emotions, such as cats have them. But you definitely pick up on the sense that, you know, this isn't just a robot, this is you know, a thinking feeling creature. Probably not thinking and feeling on the same level as a person, but there's still something going on back there, or in the back of their head. So all of those things sort of came together at roughly the same time, and that's what really had me starting to consider, you know, is it right—from sort of a moral ethical perspective—to be killing and eating animals?

Yet as Aaron continued to discuss this topic, he went on to express some uncertainty about these ethics. He went on to say:

At the same time, I don't have a satisfactory answer in my mind for this question of what you base rights on. Right? So it's still something that I'm trying to explore and play around with in my mind. *And* you can't get over the fact that we have evolved to eat meat and to be hunters, and so have plenty of other animals. So on some level these questions, they're kind of abstract and rooted in more subjective sort of opinions, meet up with just with the objective reality of nature and that kind of thing, and you know, there's gonna be some sort of a discontinuity and where do you draw the line and say, "okay this is just the way things are, people eat other animals and other animals eat other animals," and you're sort of drawn into a more abstract discussion of where do you say, "okay, this is where that abstract discussion actually has real consequences"? So I guess I'm still not firm on that aspect of things. So those are the reasons why I was considering vegetarianism and why I'm not completely committed to it... So based on all that, I

would still be okay with eating products that come from animals, so things like dairy and eggs, but not products that—so assuming that I do fully adopt that kind of vegetarian diet, not products that require killing an animal. And that’s the reason, that’s the whole reason why.

Of interest, Aaron is considering a lacto-ovo-vegetarian diet because he believes that selling dairy and eggs does not necessitate killing the animals. This suggests that he may not be aware of the practices in these industries [42, 43, 45, 105], and if he was aware of the fate of animals in the dairy and eggs industries, he may feel differently.

Animal Welfare

Animal welfare concerns were frequently cited by my participants as reasons for considering vegetarianism. While seven of them mentioned it during the interview, it was more important than animal rights for three people: Ellen and Paige had no issue with killing animals to eat them, as long as they were treated well. Aimee mirrored this sentiment, but seemed considerably more hesitant, saying that if she had an organic farm, “I would eat them, but killing them would be a different matter.” When she was pescetarian in her youth, Aimee had been concerned about both animal rights and animal welfare. When she started eating land animals again, she started to feel less concerned about animal rights, although it is hard to say which came first. This is of interest, as a 2010 study found that eating meat, as opposed to nuts, reduced people’s perceptions about animals’ moral status and ability to suffer [106]. Regardless, concerns about how animals are treated on industrial farms were her primary motivation for considering vegetarianism when we spoke:

When it comes to eating—deciding to eat—meat, and the thoughts that come to mind, it’s actually, probably for me, the more stronger part of the thoughts is definitely with regards to, and this is very interesting I think, is more with regards to the animal welfare and not with regards to *my* welfare. I don’t, when I’m sitting there deciding to eat meat, and I feel guilty about it, it’s not as much because of the fact that I think a plant-based diet is healthier, so that’s *my* welfare. It’s not as much about that as it is about the fact that I don’t want to support industrial agriculture. And because, like I said, supporting it is, could be another mind-map of its own, you know? Supporting industrial agriculture, to me, is linked to so many things... Animal welfare, environment, politics. Well health as well, but I guess those three are the main ones... And I think that there are other things that stem from that that are all interconnected... and when I talk about this [industrial agriculture], I *am* mainly talking about meat production.

In contrast to Aimee, Ellen did not seem conflicted in her views on eating meat when we spoke. Of interest, however, like Aimee, she had been concerned about animal rights and that people “didn’t necessarily need to eat meat, but... were” when she was a child. Ellen described the current reasoning behind her interest in vegetarianism as “much different.” While personal health was her main reason for wanting to become vegetarian, animal welfare was a supporting reason:

I don’t really have any moral issues with eating animals. I know some people just completely reject that because they think it’s wrong to slaughter anything for your own, you know what I mean, satisfaction or for your own wants, but I don’t really have a problem with *that* so much as the conditions that animals are being kept in and slaughtered in.

Paige used to work in a chicken slaughterhouse. She explained to me how chickens are slaughtered, and contrasted this with how cows are slaughtered; she perceived the latter as involving more suffering: “I feel it’s worse in the cows because how they are handled and other stuff. I don’t want to think about it, it’s awful.” Her experience completing a diploma in dairy farming, and having classmates studying beef farming, also informed her on the treatment of farmed animals. Paige expressed no concerns about animal rights, and although animal welfare was not one of the primary reasons for her interest in vegetarianism, she had a lot to say about it. Throughout our conversation, she kept coming back to her discomfort with the way that cows raised for beef are treated. I also find it interesting that Paige was a semi-vegetarian who did not eat red meat. It made me wonder whether she started to seriously think about the treatment of cows before or after she stopped eating them.

Islah had also seen animals killed, both in a slaughterhouse setting, and by her father for the Islamic holiday Eid al-Adha. She did not spend much time talking about animal welfare throughout our conversation, but mentioned it briefly as a lead-in to telling me about what it was like to witness an animal being killed: “It’s kind of hypocrite to say that... we care about animals, we don’t like torture, but then [*voice trails off*]. I just want people to go to a slaughterhouse for one day, and see what’s happening there, and I’m sure many of them will turn vegetarian.” When I asked Islah if she had additional comments at the end of the interview, she had much to say. When we first started talking, she had expressed strong feelings against veganism in terms of it being restrictive, difficult, and inconvenient for friends and family. Yet this latter part of our conversation revealed that she not only felt that she understood some of the reasons behind veganism, but might even consider it herself in the future when she has finished growing:

Cows, they're kept, they can't—sometimes they're not allowed to walk, and they keep them pregnant. Actually there's something that I really feel guilty about: Dairy products, cuz apparently, milky cows are not treated as well as—they're treated badly too, because they're kept pregnant—if you want to get milk, the cow has to be pregnant all the time, and they treat them badly too. So that's the reason behind vegan diets.

Environmental Sustainability

Seven of my participants cited environmental reasons for their interest in vegetarianism. Lynn, Islah, and Ellen all believed vegetarian diets to be better in terms of their environmental impact than diets containing meat, but did not discuss this in much detail; that said, environmental reasons were not main reasons for considering vegetarianism for any of them. Aimee, Odell, Paige, and Jeremy, on the other hand, all cited environmental reasons as their number two reason (second to either health or animals) for wanting to become vegetarian, and felt strongly about it. Of interest, Aimee, Odell, and Paige were completing degrees in Environment when we spoke. Here is what some of them had to say:

What I mean by cost-benefit is, “do I think about the environment or do I think about my health?” And that is a very interesting issue because it's very much an anthropocentric way of thinking to think, “I should eat fish because it's good for my health,” when the entire—so many eco-systems are *literally* falling apart before our eyes. All because of these types of decisions that we make every day... These types of decisions when it comes to eating meat and fish. I think that that's a very fine line to be treading. Like, okay, I'm going to trust what I hear about the benefits of eating fish, or okay, let's say maybe the benefits of eating very lean, beautiful steak because I enjoy eating it, and if it's very lean it doesn't have a lot of fat on it and it's gonna be beneficial to me because it's good protein and I don't get a lot of iron because I mostly eat vegetables. You know, *okay* there's a lot of research there, and yes, there's a lot of reliable research there with regards to all the nutrients and their benefits, and okay, should I eat salmon because it has really great omega 3s? But how can you really say that eating that salmon twice a week for those omega 3s is gonna make you smarter or make you less prone to having a heart attack because you'll have less atherosclerotic plaque on your arteries? How can I say that that's more important than the environment?

I chose this quote because it illustrates that the decision to eat meat is not straightforward to Aimee. When she thinks about eating meat, she grapples with considerations like these. As someone studying both Ecological Agriculture and Dietetics, she has much to take into consideration when she eats, as these fields of study sometimes contradict one another. Yet Aimee stated more than once that nutrition was not a major factor affecting her consideration of vegetarianism; the environment and animals played bigger roles.

Odell had spent less time thinking about vegetarianism than Aimee had, and was more succinct in her answers to my questions. She mentioned that the environment was one of her top reasons for considering vegetarianism, and that she had learned about the environmental benefits on numerous occasions in university, especially in terms of meat's CO₂ footprint. Odell did not feel able to become fully vegetarian for a number of reasons, but felt that it was feasible to try it one day a week: "Oh I can help by doing this, just to change my diet for one day then I can help? Well, this is—I can do it, you know? It's doable."

Paige was concerned about the impact of a number of different animal products on the environment, from meat to dairy to fish. When she was in CEGEP, one of her classmates did a presentation on over-fishing. She remembered that over-fishing causes changes in water ecosystem food chains. When an employee at her local grocery store fish counter told her that they were going to be offering more farmed fish because of over-fishing, Paige was unimpressed: "Farmed fish is not necessarily good because how they are farmed... Their feed is not necessarily better... The fishes is... enclosed... Too many fish at the same place, so it's no good for the river where they're farmed." Related to environmental reasons for veganism, Paige also discussed her concerns about dairy. She felt that dairy farms treat cows humanely, but that it was important to consume less dairy for environmental reasons: Less demand for dairy products means less production of food for these animals, meaning less use of pesticides, less pollution from tractors, and more room for crop rotation to keep the soil healthy. Because she felt that all of these things were important when making food choices, becoming vegan was a future—but not present—consideration for Paige. When we spoke, she felt that she needed more knowledge about how to healthfully eat a vegetarian diet before going further.

Jeremy spoke a lot about the water used to raise cows for beef. It was something he learned that really stuck; for him, environmental reasons were almost as important as animal rights:

When I learned the statistic of how much water it takes to raise a pound of ground beef or something, when you hear statistics like that, it's just like, "*really?! That's insane!*" You know. People try to take shorter showers to save water. If you just didn't eat that hamburger, you could take a 24-hour shower and make the same difference, you know?

Human Hunger

When I asked Jeremy why he was considering vegetarianism, he cited “the rights of starving humans” as a very minor reason in comparison to his consideration of animals and the environment. Here, he explains this in more detail:

The point I’m trying to make—or the point that people make is that if everyone just ate the corn that we’re all feeding the cows, there’d be plenty of food for everyone. Because it takes some insane amount of corn to feed a cow for its entire life, and then you only get one cow’s worth of meat, which isn’t nearly as far as the corn would have if you had just fed it to the people. Not that corn is the best thing to eat, but I mean, you could grow something else on that land.

Discussion

To my knowledge, this is the first study to find animal rights and animal welfare motivations to be distinct in their effects on vegetarians’ dietary choices. Distinguishing between those primarily motivated by animal welfare and those primarily motivated by animal rights may be an important way to study vegetarians concerned about animals in future studies. The former group may eat more animal products, eat and seek out organic or humane animal products, and eat hunted meat. The latter group may eat fewer animal products, or be striving for veganism. Previous studies found that health motivations do not tend to last as long or be as effective as ethical motivations for vegetarianism [48, 49]. My findings further add that animal rights motivations may be the most robust motivation of all for transitioning to a vegetarian lifestyle—more so than animal welfare motivations. All of my participants who were primarily motivated by animal rights had either attempted trial adoptions of vegetarian or vegan diets, or were in the process of slowly cutting out certain animal products from their diets. Those primarily motivated by health or animal welfare had not tried to cut out animal products, and one participant who was previously pescetarian due to animal rights motivations had started eating meat and adopted an animal welfare focus instead. That said, it was hard to determine the directionality of her change in motivation: Eating animals may have inspired an animal welfare motivation to reduce cognitive dissonance, or a change in beliefs about the morality of eating animals may have preceded eating them. Regardless, this distinction may be useful in future research, and in guiding efforts to promote vegetarianism. As such, clients who struggle to maintain or adopt a vegetarian lifestyle and are seeking help may benefit from exposure to animal rights positions.

All of my participants, with the exception of one who was simply starting to dislike the taste of meat, were concerned about animals, the environment, and the political aspects of eating meat. My findings support studies indicating that young people are more likely to be drawn to vegetarianism for ethical

reasons than for health reasons [13, 51, 52]. My participants ranged from 19 to 29 years of age. My findings are also consistent with past studies suggesting that animal welfare and environmental issues are of concern to more people than just vegetarians [13].

My findings also suggest that environmental concerns are pre-existing in many people considering vegetarianism. While these concerns were not strong primary motivators for change for everyone in my study, they were important secondary or supporting motivators for many. These findings contrast a qualitative study by Fox and Ward suggesting that views about the environmental benefits of vegetarianism are the consequence of a choice to avoid meat [60]. The authors surmised that this may be due to an overall lifestyle reflecting various “alternative” commitments, or due to cognitive strategies to bolster their decision [60]. My findings support the possibility of the first proposition, but also do not contrast the possibility of the second. Furthermore, people who are emotionally attached to eating meat are more likely to deny its environmental impact [64, 68]. I surmise that, similarly to how eating meat causes people to deny mind to animals [106], eating meat may cause people to deny the negative environment consequences of meat-eating. People thus may be open to learning about the environmental impacts of meat consumption only after becoming vegetarian.

My findings further suggest that there are potential clients and patients interested in becoming vegetarian to reduce their ecological footprint. Three quarters of U.S. Dietitians feel that climate change is an important issue, yet only one third felt that Dietitians should help play a role in its mitigation; only 38% promoted diet as a climate mitigation strategy [107]. Asking patients about their ecological motivations and interest in vegetarianism may increase Dietitians’ opportunities to connect dietetics practice to climate change mitigation.

One participant mentioned mitigating world hunger as a minor motivation for becoming vegetarian, and this position is supported by the Food and Agricultural Organization of the United Nations [26, 108]. More human-edible protein is fed to animals than it is to humans, and animals are fed more protein than they provide to people [26]. This was not found to be a primary reason for becoming vegetarian in any aforementioned studies, and it was not here either.

My findings also suggest that considering vegetarianism may also go hand-in-hand with thinking about the ethical impacts of a number of their other eating decisions, besides eating meat. This was supported by some studies [58, 60], but not mentioned in others [66]. A literature review by Ruby found that Western vegetarians tend to emphasize social justice, environmental protection, and equality, and

renounce authoritarianism, hierarchy, and violence [109]. They report feeling more empathy for the suffering of both human and non-human animals, and brain scans show stronger neural empathy responses in vegetarians than non-vegetarians when viewing scenes of human and animal suffering [109]. Based on their motivations for vegetarianism, worldviews, and general concern about the effects of their lifestyle on others, it seems that many of my participants had much in common with actual vegetarians—despite not having fully changed their diets. Perhaps this is because many of them had been considering vegetarianism for years, and some had even attempted vegetarianism or been vegetarian.

Health

All of my participants mentioned that their health was important to them. That said, the importance placed on health *as a reason for considering vegetarianism* varied greatly. Health was the number one motivator for Ellen, while Aaron felt that, “from a health point of view, eating meat would probably be more preferable.” The two men that I interviewed were least motivated by health as a reason to consider vegetarianism. Jeremy only mentioned the health aspects of vegetarianism once during our 3-hour conversation: “The truth is there’s a *little* bit of health from my end. But not really—that’s mostly just for red meat, and yeah, that’s a small factor.” This is consistent with at least one study finding that men are significantly less likely than women to be interested in vegetarianism for health reasons [51].

The rest of my participants fell on a spectrum in-between these positions, with the majority believing that vegetarianism is healthier than eating meat. While there was some general agreement on what makes vegetarianism healthy, views on this really varied amongst my participants. Reasons cited ranged from the lower fat and cholesterol content of vegetarian diets; to the hormones and antibiotics given to farmed animals; to the quality of the food provided to farmed animals; to individual medical concerns; to the heavy metals present in some fish.

Hormones and Antibiotics

Three of my participants were concerned that the hormones given to farmed animals could negatively impact the health of people eating them and their secretions. Aimee and Odell were additionally concerned about antibiotic use in farmed animals. When I asked Odell if dairy foods were common in Hong Kong, she responded:

Yes. And they all think it’s really healthy, but then when I read the article, there are so many hormones in the milk that makes it not healthy anymore. That’s why I kind of switched to

almond milk too. Or I just go buy organic milk... Is it there the cow is not having the hormone injected? That's what I understood... Right now I buy organic because I feel like right now I'm paying more, then I'm gonna pay less later... I start to have that vision, paying more now. Every time I buy, I'm like, "this is so expensive!" Then I'm like, "okay, I'll be having a better life later." I hope that it's a good investment [*laughs*].

It seems that Odell was concerned that the hormones used in dairy farming could negatively affect her health, particularly down the road. For this reason, she tried to avoid purchasing conventional cow's milk, buying almond milk or organic cow's milk instead, despite the sizeable cost difference. Aimee also expressed concern about the added hormones and antibiotics in meat a number of times throughout the interview.

Paige did not mention her concerns about hormones in much detail. She believed that "both chicken and cow are [given] growth hormones." It was clear that she did not see this in a favourable light, but I was not certain if her concerns were related to the health of people eating the meat, the animals' welfare, or both.

How Farmed Animals are Fed

Four of my participants expressed concern about farmed animals' diets, three of whom believed that this could potentially negatively affect human health. Of those three, Paige and Ellen were the most motivated to become vegetarian for health reasons. In the midst of discussing the environmental impacts of farmed fishing, Paige voiced concern about how farmed fish are fed:

Farmed fish is not necessarily good because how they are farmed... Their feed is not necessarily better... For what I can remember, the food that they, the fish eat is almost cat food. So it's not, it's the gristle, and it have too much fat... it's trash that they put it into pellets and that they giving to the fish now.

Paige then went on to discuss her ecological concerns about farmed fishing and concluded, "Maybe I'm going to [eat] chicken instead." She also briefly mentioned concern about the way that farmed pigs are fed "*everything*, or almost." Similar concerns about the food given to land animals in large scale operations were raised by Ellen: "If you're running such a large-scale operation as these corporations are, they're packed together in really gross conditions, there are way too many animals, they're being fed improper food that isn't right for them, and it isn't right for us either, you know?"

Fat and Cholesterol

Three of my participants cited the fat and dietary cholesterol in meat as reasons why vegetarianism might improve their personal health. Lynn believed vegetarian diets to be healthier than those containing meat, and vegan diets to be healthier than vegetarian diets—as a general rule. She mentioned a number of exceptions to this, such as vegetarian diets rich in cheese, and vegan diets rich in added oils. Based on some of the blogs she had read, she did not believe dairy products to be as healthful as they are marketed, and avoided eating large quantities of cheese. She also had concerns about the dietary cholesterol in animal products:

Okay, *veganism* is this sort of ideal thing. It seems healthier. It seems, just sort of more pure in a couple ways... I don't even really know what cholesterol actually is, but what I envision cholesterol—it's this foggy stuff that's everywhere, and the more you're vegan, the less you have *cholesterol* [evil voice]. And I know it's not like that, but cholesterol sort of embodies everything that is bad about eating meat and dairy. That—and I have a very uninformed view of this—which is why I'm interested in nutrition because [I want to know] "what's going on?" ... You know, a juicy piece of celery seems so good and it goes through—I know it doesn't go through your blood—but I imagine it kind of going through your blood in that way.

Although Lynn does not know exactly what cholesterol is, she knows that it's not something people should be trying to eat more of. In the above passage, she only mentions meat and dairy sources of cholesterol, but later talks about feeling grossed out by, amongst other things, the cholesterol in chickens' eggs.

Islah, a semi-professional athlete, cites animal rights as her number one reason for considering vegetarianism. When I asked her what factors play a role in her eating habits, she briefly mentioned health as a supporting reason, "Because usually meat comes with fat and cholesterol."

Other

Paige saw vegetarianism as generally healthier than eating meat, aside from her medical reasons for avoiding red meat. She spoke a lot about how fish are farmed, and expressed health concerns about the heavy metal content of fish: “I’m not sure if it’s healthy at some point because fishes have a lot of lead in, which is no good.” Ellen’s health concerns, on the other hand, were directly related to what she saw in the documentary *Food Inc.* When we started discussing this topic, she went on a roll:

I’m *really* recently really into watching documentary movies, and I don’t know how factually accurate the *Food Inc.* is. But watching that, I just became absolutely disgusted, a) with the way that we’re eating—well I’m from the States. Things are a little bit different in that sense, I guess—I dunno, there’s always the fast food here as well, you know, it’s not—it’s not something you can avoid, but with the fast food, with the regulating agencies, and with the quality of the product that they’re allowing on the market, it’s absolutely horrifying to me... In the documentary they mentioned that in ever—any given beef patty, there can be meat from 1000 cows or something like that, in one patty. And that, obviously—can you imagine?! I don’t know if that’s true... The possibility for one of those animals to be infect[ed] with disease—is *much* much higher.

Discussion

My participants identified only two well-recognized health benefits of vegetarianism: The lower fat content of vegetarian diets, and the lower cholesterol content. Yet well-planned vegetarian diets have more to offer, including significant reduction in the risk of developing obesity, cardiovascular disease, hyperlipidemia, ischemic heart disease, hypertension, type 2 diabetes, and some cancers [2, 4, 16]. The reasons for these benefits may include higher intakes of fibre; vitamins such as folate; minerals such as potassium; and phytochemicals, due to higher consumption of whole plant foods—and, as mentioned by some of my participants, lower saturated fat and cholesterol intakes—of vegetarians [2, 5, 16]. However, few of these benefits were recognized by my participants. It is important that vegetarians know how to plan their diets so that they might actually reap these benefits.

My participants’ beliefs about the health benefits of vegetarian diets seemed to be prompted by the presence of certain contaminants found in meat and dairy, versus the benefits of reduced disease risk. They were concerned about added hormones, antibiotics, and (in fish) lead. My participants were also concerned about the way that farmed animals are fed and the potential effects of that on human health. While these are understandable concerns, and could be involved in contributing to the benefits of

vegetarian diets, few human studies have been carried out to test these assertions. The health effects of added hormones on humans are more controversial, and are generally accepted to be safe in Canada, although the EU holds the opposite opinion. Yet Canadian reports do assert that antibiotic use in farmed animals poses a risk to human health. Of note, a participant in one past qualitative study reported concerns about antibiotic-resistant bacteria and viruses in animal farming, but it was not necessarily a reason for him to become vegetarian [56].

Politics

Political reasons for becoming vegetarian were mentioned by five participants. This was surprising to me at the time of the interviews, and more surprising when I started my literature review. In only one previous quantitative study did participants cite political reasons for becoming vegetarian: In it, current vegetarians rated “political values” as a more important motivation behind their food choices than former vegetarians, although political reasons were less important to both groups than animal rights, health, and environmental reasons [51]. Consistent with those results, political reasons were none of my participants’ primary reasons for their interest in vegetarianism; rather they were supporting reasons for those who cited them. Political reasons differed amongst my participants, each of them thinking about different political issues, sometimes from slightly different angles.

Money, Power, and Influence

Islah mentioned the cost to produce meat numerous times throughout our conversation as a reason to avoid it. She referred to the government support offered to producers; the power and money that lobby groups have; and the monetary motivation behind selling unhealthy animal products, such as McDonald’s hamburgers. Aimee was in agreement with Islah’s sentiments. She felt that money, above all else—and most certainly above animal welfare and environmental protection—is what drives companies to raise farmed animals in the way they do. Ellen was also concerned about political issues. Like Islah, she disagreed with government subsidies that artificially lower the price of animal products:

The cattle often times are fed corn as well, and there are lots of subsidies on corn that maybe don’t need to be there, or shouldn’t be there... Here in Quebec milk is not subsidized, so it’s much more expensive than it is in the States—or at least in New York State.

Jeremy felt that “there’s *massive* economic implications on the macro scale for whether or not people eat meat as a whole. Or just in terms of game theory of about, how my actions eating meat might influence someone else’s.” He expressed concern throughout our conversation about the effects of his eating habits on other people’s. Jeremy felt that being in a position of power could influence office politics, and expanded on that when I asked if he could see himself becoming vegetarian in the future:

This is gonna sound weird but, if I ever just find myself in a position of power, then it’d be a lot easier. Because it would be not only more of a motivation in the sense that I’d be more influential, what I would be doing would be more influential. Let’s say I choose to be an investment banker and I do really well and I’m, whatever, just really high up. And then we go to, if we all go out to eat, and I order a vegetarian thing and I’m the head honcho guy and I order a vegetarian meal. That would be setting a standard where it’s okay to do that. Because that is a reinforcing factor that would make it easier to be vegetarian. And *also*, if I just, Peter Singer for instance, people invite Peter Singer over for dinner, they don’t make meat. If I for some reason get good enough at something where people know who I am, they know about me, then it wouldn’t be so much like I’m putting them out by being vegetarian because they would know that, by inviting me over... And depending on, I think the lines of work that I’m considering right now, I don’t think there’s lots of vegetarians in that line of work, so. Banking or, anything economics related, I feel it’d be like, I’d be the vegetarian at the office, you know I mean? Or of the division maybe, or anything, you know?

Individual Political Views

When I asked Jeremy why he thought that there were so few vegetarians in the careers that he was considering for himself, he responded:

Because I think that in order to have a career like that, you have to have a certain worldview... Because you can’t just have obscene amounts of the dissonance I was talking about earlier, between what you believe and what you do. There has to be a certain amount of alignment between those two things. And so if you’re an investment banker, you can’t be completely anti-capitalist, right? So, and I think that worldviews that are in line with those kinds of careers aren’t heavy on our obligations to people or animals beyond your immediate family. It’s very—well I just think they’re more right-wing kinds of jobs. And the right-wing mentality is more that you really don’t owe people in Africa anything. You owe your *family* something, and you do your best and those people will do their best, and then however that ends up is ethical. Which is different than the left-wing perspective. That’s my guess.

Here, I believe Jeremy to be saying that eating meat and having a right-wing mentality are in line with one another because the right-wing mentality emphasizes obligations to oneself and one’s immediate

family over (human or non-human) others. Lynn also felt that people with left-wing political views were more likely to embrace vegetarianism. In terms of what a typical vegetarian might look like, she said: “I guess it does look a little bit more left wing politically. So in any way that that can be sort of embodied. And I’m not saying that’s exclusive or anything in any way. To me it does sort of feel that.”

In contrast, Aaron’s views tended towards the right end of the political spectrum. In fact, reading about libertarianism got him thinking about rights and what they are based on—his main reason for considering vegetarianism: “As I started to look more into libertarian social and political philosophy, I was reading more books about that and they brought up issues of rights, natural rights, that kind of thing.”

Discussion

Politics was an often-cited reason for interest in vegetarianism, and for some of my participants, it was an important ancillary motivation. Some of my participants felt that vegetarianism was consistent with their personal political stance. Others were concerned with the political decisions that affect food systems more broadly. Political motivations in vegetarians are an understudied topic. Male and female vegetarians were motivated to be vegetarian by their political values to the same degree, and these values were more important to current vegetarians than they were to former vegetarians [51]. A literature review by Ruby found that several studies indicated that vegetarianism is more associated with liberal values, whereas non-vegetarianism is more associated with conservative values [109].

Disliking meat

While the grand majority of my participants very much enjoyed eating meat, two of my participants did not. For one, this dislike was sensory and related to its taste. For another, it was psychological, and her longstanding dislike for meat grew into feelings of disgust.

Taste

Rana, whose interview I was unable to fully transcribe because of technical difficulties, had only one reason for becoming vegetarian. For her, this transition was strictly based on taste:

I noticed that I’m kind of heading towards vegetarianism. I don’t know how that happened... I started not liking the taste... At first it was only red meats, but now it’s starting to be also white meats like poultry. For example, last week, I had a chicken pie, and then after the first bite, I was like, “hmm, no. Not eating it.” I just couldn’t. It was the taste... It was this after chicken-greasy taste and that I just didn’t like. So I’m probably not trying that again.

Disgust

Lynn's feelings of disgust about eating meat played the biggest role in her decreased meat consumption after moving out of her parents' place. When she started cooking her own meals, she tried to cook meat twice, and it disgusted her so much that she had not tried cooking it since. During our conversation, Lynn explained why meat brought about such feelings:

More it is just eating something *dead* in my sandwich... I don't really like eating pieces of fish. I can't do lobster because it's such a thing, it's a creature, right? And same thing with pieces of fish. I think that's what grossed me out with meat. It's a clear piece, like a chunk of something that you can visualize as sort of being in something, and once walking around. And that, and once you think that, it's hard to get past.

She later said, "*I'm eating death* is the gross part, which is a perfect marriage of disgust and ethics." Lynn was also disgusted by eggs, but acknowledged that this was not, in and of itself, sufficient for her to stop eating them: "I wouldn't give it up because it's gross, I can live through it being gross." Rather, the cruelty inherent to egg farming was a motivator that she would consider changing her eating habits for.

Discussion

Of interest, no past studies cited taste as a primary motivator for transitioning to a vegetarian lifestyle. It is interesting then that one participant out of ten—in this randomly generated sample—cited taste, and taste alone, as their reason for becoming vegetarian.

A 1998 qualitative study by Jabs, Devine, and Sobal found that its vegetarian participants had started to feel psychologically disgusted by meat once they made the connection with its animal origins [61].

Studies by Rozin *et al.* in 1997 and Fessler *et al.* in 2003 concluded that disgust reactions to meat were "caused by, rather than causal of" people's moral beliefs about eating it [67, 110]. Twigg's 1979 study also found that vegetarians found meat revolting when they associated it with death [111]. My findings are consistent with these earlier findings.

Religion

Most of my participants were not religious. Even Islah, who is Muslim, was not drawn towards vegetarianism for religious reasons. In fact, the majority of my participants explicitly mentioned, some without being asked, that religion did not play a role in their consideration of vegetarianism. Islah did mention, however, that “it’s not forbidden to be vegetarian in Islam.”

Odell grew up in China where the only vegetarians tended to be Buddhist monks. Even though she was not religious, religion played a role in deterring her from considering vegetarianism. Here she explained why she never thought she would become vegetarian in her youth:

In our culture, Chinese, maybe just to myself, my group, we think that being vegetarian is some kind of monk, only monk who goes to the Chinese temple who—they are the only one who will do that, so it’s kind of boring. So we don’t like to do that; we don’t want to be them.

Discussion

Religious motives were not significant in most studies of vegetarians, with most studies indicating no religious motivations. One study looking at vegetarians’ and semi-vegetarians’ motivations found that religious motivations could not predict dietary choice, and were of trivial importance to vegetarians and semi-vegetarians [50]. The highest percentage of people citing religious motivations was noted in a 1999 study that polled just over 50 vegetarian students in the United States, and found 11.5% to be motivated by religion [12]. My finding that religion is not a significant motivator of vegetarianism in Canadian students is in line with most previous studies.

V. FINDING #2—BARRIERS TO BECOMING VEGETARIAN

Eating In: Limited Vegetarian Cooking Skills, Experience, & Time to Develop Them

The most commonly cited barrier to transitioning to a vegetarian lifestyle involved the various aspects of learning how to cook vegetarian meals. A number of reasons why my participants felt that cooking was a barrier to becoming vegetarian were cited by Islah in this passage:

I'm a student, so I don't really have time to cook elaborate dishes. I need to know how to cook vegetarian food in 5 minutes [*laughs*]... I wish I could just find a good book for that or something. I'm actually looking for [a book]... Internet is too vague. It's a sea, you can't; you easily get lost. And I know *many* people think that being vegetarian means eating grass, and eating the same thing every day, but I don't want to fall into that. I don't want to just eat salad, I want to eat something different every day, and for that, I need to learn new stuff. And because I'm [North African], when my Mom would come visit me—I'm thinking about cooking for her, because I cook for her, I can't just give her salad and carrots and, I need to cook something that looks like something. So I need to learn a bit.

Above, Islah touched on lacking time to learn a new way of cooking; lacking resources for good recipes; wanting enough dietary variety; wanting to eat meals more substantial than salad; and wanting others to enjoy her cooking. Islah did not purchase campus cafeteria food; wanted to eat healthy as an athlete; and is an experienced cook who used to teach cooking classes. Even given these factors, putting lots of time into cooking is not desirable to her.

Paige, on the other end of the spectrum, hated cooking. She did not cook her own meals, and lived with her sister who cooked for both of them. When I asked her why she did not like cooking, she responded, "I think it's more actually because of the time expense... It's so long." The fact that it is not the cooking itself that Paige did not like, but rather the time factor, is fascinating. Paige is also one of the two people I interviewed who was working while going to school; her time was presumably more limited compared to many of my other participants. That said, the majority of my participants mentioned having limited time to spend on cooking.

Learning to Cook Vegetarian Meals

Many of my participants recognized that vegetarian cooking is not as simple as removing the meat from a non-vegetarian meal. As expressed by Jeremy, "If you're used to making meals with meat, it takes some learning to figure out what you can eat that'll fill you up and provide you with protein. So that's a

barrier.” He also felt that the “mental energy required to make a meal” increased as more animal products are removed from the diet. Similarly, Islah saw vegan cooking as being exceptionally complex, more so than vegetarian cooking, recognizing that cooking vegan meals is not as simple as removing the dairy and eggs:

Cooking vegan is complicated. Like, no dairy food. If you wanna bake, you have to get special things like vegan milk—it’s like soya milk or something like that. And it’s usually very expensive, I checked. And bread. You know, all bread food; you can’t have that because it has to be vegan.

Ellen also acknowledged the challenge of cooking vegetarian meals, but did not necessarily see this as being specific to vegetarian cooking. We spoke during her first year of living away from home:

You know what a lot of this is? Not necessarily just becoming a vegetarian, but the process of learning to cook for yourself and learning to buy your own groceries is interesting as well. That’s one of the other reasons I was like, I would like to consider the option of, you know, becoming a vegetarian or eliminating certain things from your diet, like maybe corn—the corn syrup that’s in a lot of stuff or, I don’t know, GMOs... it’s like I’m discovering my own way of eating now. Not that you can eat your own way, but you know, when your Mom or Dad is purchasing groceries for you, it’s much different. It’s actually really interesting, I quite like being able to buy my own food.

Aimee’s experience, however, was different than the majority of my other participants: “I stopped eating meat when I was 16, and that was when I started learning how to cook, so I never learned how to cook meat... I think that if I had have been eating meat when I was learning how to cook, those eating habits would have influenced me more.”

Creativity

It’s always easier to [stay] within your comfort zone than go out of it... I feel like vegetarian at some point you have to be creative because there’s way more books, cooking book[s] about, I’ll say “regular” food, than vegetarian. I have [a] few, but they, I feel like it’s not enough... Maybe that’s the hard things too, at [the] beginning you have to go through books... When you’re in your comfort zone, you just go with what’s in your mind and eat what you’re used to.

Here, Paige expressed that most of us cook what we are used to making on a day-to-day basis, and that being creative (i.e., straying from what we are used to) requires learning new recipes, which involves effort and time. This is enhanced if the cook books available to you are not vegetarian nor catered to your dietary restrictions. Aimee, who had been pescetarian for 6 years prior to our interview, also felt that those transitioning to a vegetarian diet “should consult resources for inspiration—for inspiration,

because I think that being a vegetarian requires *effort* and inspiration and trying new foods.” Aimee also indicated that this transition may be more difficult for people who do not enjoy cooking, do not enjoy trying new foods, or do not have access to inspiration from vegetarian restaurants. She also felt that for people accustomed to eating meat, making up for the missing umami flavour (and fat) may takes some experimenting with ingredients, cooking methods, and creativity. Umami is a flavour derived from the amino acid glutamate found in high-protein animal foods such as aged cheese, anchovies, and cured ham; vegetarian sources include fermented foods such as miso and wine, sundried tomatoes, mushrooms, and nutritional yeast [112]. In response to my question about the easy and difficult parts of transitioning to a vegetarian diet, Paige responded:

I don’t feel like there are easy [*laughs*]... You can have the will to do it, which is kind of easy. But to keep things in action it’s kind of hard. It’s always easy at the beginning but to keep up it’s hard. And sure you have to... get used to some cooking and stuff; you’ll sure get rid of everything... all the meats and stuff—but it’s really to be creative and always not get bored... of what you do. That’s going to be hard.

While she feels that the desire to be vegetarian comes easily, the practical parts of cooking, such as trying new recipes and keeping things exciting, are difficult. Paige alludes to it being easier at the beginning, whereas most of my participants saw the beginning as the hardest part. I am uncertain how long-term Paige is thinking when she says she sees keeping with the lifestyle as difficult. Yet her assessment may be applicable to a number of my participants who tried to become vegetarian for a time period and then stopped. Most of these time periods were described as brief. Yet Aimee had been pescetarian for six years when confronted with attending the same restaurant every day. In her case, lack of variety was a factor in starting to eat other types of meat again.

Variety

That lack of variety could become a problem when transitioning to a vegetarian diet was a concern to more than half of my participants. When I asked Lynn about the easy and difficult parts of transitioning to a vegan diet, she said: “The difficult things, I guess, would be trying to have enough variety? That would be difficult, I think. Just trying to not eat the same—same thing. Again, I wouldn’t mind, but with a partner, you want to.” In order to get her partner on board with trying out veganism, Lynn felt that the meals they cook together would have to be varied to impress him. They were already struggling with meal-planning with the limited time that they had, and she saw meal planning, buying new ingredients, and trying new recipes—to maintain variety—as challenging. Aaron also commented on dietary variety

and vegetarian meals: “I think it’d be more fun to cook with meat just because there’s more diversity in what you can make.” Aimee, who studied nutrition, felt strongly about the importance of variety in vegetarian diets from a nutritional adequacy standpoint. In discussing her perception of the transition to a vegetarian diet, she said:

How many people really know... how important variety is for a vegetarian lifestyle? Yeah, people know that variety’s important, but do they really know why and what to choose?... I think that that transition is more complicated than people might think, or that it should be considered to be more complicated than people might think—it should be more weighty than it is... It should be planned out, it should be thought about, it should be calculated. People should write down their thoughts, write down—they should plan daily diets—and not necessarily like, “okay, this is what I’m gonna eat today,” but “this is what my day might look like one day; this is what my day might look like the next day.” It should be written out, or at least thoughts should be written out, point form. Or even if it’s somebody who is not very knowledgeable... I would advise people to consult Canada’s Food Guide... it also gives really good tips about variety.

Yet not everyone variety saw getting sufficient variety as a challenge specific to vegetarian diets. Below is a passage from my conversation with Ellen:

I realise now what a hard job it is to vary meals... I think everybody does this within their family... but sometimes the meals become a little repetitive and everybody will say, “come on, this is what we had last week!” but then now as I try it for myself for real, it’s quite a difficult task in coming up with new ideas.

In Ellen’s experience as a new cook, it was deceptively difficult to vary meals every day. From her perspective, this is the case even for experienced cooks like her parents. Also regarding dietary variety, a couple of my participants admitted that their current ways of cooking did not involve extensive variety: “I don’t always make different things. I’m—I have like, two or three things that I make all the time... It’s less mental work,” said Jeremy. Lynn felt similarly, saying, “I’m not a very adventurous. Not adventurous, I don’t know. I’m sort of [a] lazy cook. I just do a couple things that I know.”

Cooking with Non-Vegetarians

While some of my participants did not cook with others, cooking with non-vegetarians was a barrier for all of those who did. In general, cooking with non-vegetarians typically increased the amount of animal products that my participants ate, although the ways in which they negotiated cooking were also diverse. Some of my participants had not yet figured out how they were going to navigate cooking with non-vegetarians, and this was particularly the case for those who lived with their partners, elaborated on in the “Dating a Non-Vegetarian” section.

Ellen felt that she and her flatmate had very different eating habits. Her flatmate ate fewer vegetables, more microwavable meals, and more pre-packaged snack foods than she did. They negotiated the situation by “meet[ing] in the middle” when they cooked together—about twice a week. Their shared meals usually consisted of chicken or turkey meat, and Ellen felt that this affected her meat-eating habits: “I think it’s definitely *possible* to still cook with others and be a vegetarian, it’s just sometimes a little bit more effort or you have to think ahead more, you know.” Jeremy lived with four flatmates when we spoke. When I asked him what he typically makes when he cooks with his flatmates, he responded:

Yeah see the reason I like eating with them so much other than the fact that it’s a communal thing is that they’re always making different things. And I don’t always make different things. I’m—I have like, two or three things that I make all the time and then. So yeah, yesterday we made a really fancy sausage—they call them hotdogs, I don’t know, they were sausages from the market, on a fancy olive bun with feta and sundried tomato and all this stuff that I would never buy for myself, and that or lasagna, or a big bowl of quinoa salad and stuff. Yeah, it’s almost always different.

When I asked Jeremy if his preference for vegetarian meals has affected the meals that he and his flatmates cook together, he responded: “No I don’t think so. No. But they’re already pretty far in that direction. I’d say they eat meat two or three times a week. So it’s not much at all, you know?” I gathered from our conversation that Jeremy typically ate meat once to three times a month. Like Lynn, he said, “I mean *ideally* I would just, I could just be vegan.” Jeremy felt that his flatmates did not eat a lot of meat. Yet because they ate much more than he does, and did not take his preferences into account when cooking together, their eating habits increased his consumption of animal products. Meat sausages and feta cheese were things that he did not typically purchase. That said, not everyone cooked with non-vegetarians frequently. Here, Aimee talks about cooking with her flatmate and good friend:

We cook together periodically. Not that often.... It's kind of—maybe odd, actually. We will cook at the same time, but cook different things. We... don't cook communally that much. Maybe once a week. We buy things separately but then we'll both be in the kitchen at the same time... We're really close and we're really good friends. And you know, normally when you're living with somebody you're really good friends with, you might share meals together, and cook and sit down together, and eat together, you know? And we do do that, but we, we don't cook the same thing. He eats more meat than I do. He, yeah, I guess we like to eat different things... for example, he doesn't really eat salad. But I eat salad; I like to make salad a lot. What else?... I guess, yeah, primarily it's just that we don't, we don't normally eat... exactly the same foods.

Discussion

First, my findings suggest that cooking tasty vegetarian meals from one day to the next without prior experience is seen as a challenge. Some learning, and some experimenting with recipes, may be required. Prospective vegetarians may be exposed to non-vegetarian meals at home, at restaurants, and in cookbooks, and as a result, vegetarian cooking requires additional creativity, ideas, and inspiration. When a limited repertoire of vegetarian recipes is familiar to a prospective vegetarian, they may feel concerned about vegetarian cooking being too repetitive or lacking in variety. Furthermore, many prospective vegetarians may think about vegetarianism in terms of the animal foods they are giving up (as opposed to the new plant foods they are trying instead) and this may perpetuate feelings that vegetarian cooking lacks diversity. Many people see stereotypical vegetarian meals consisting only of salads, and prospective vegetarians typically want to avoid this type of monotony. Because prospective vegetarians may feel the need to learn new ways to prepare meals, to be creative and try new recipes, and to ensure adequate variety in their cooking, moving to cooking vegetarian requires time and effort from their perspectives. Even though prospective vegetarians may not currently vary their meals too often, they may be unwilling to spend time and effort being inspired, trying new things, and learning to cook vegetarian meals to add to their repertoire, especially if they are busy. Finally, my findings suggest that prospective vegetarians may feel that their ability to cook with other people—partners, flatmates, and/or friends—would be compromised upon becoming vegetarian, and may see this as an inconvenience requiring effort.

A study looking at the barriers to eating a plant-based diet in diabetics found that about half of respondents cited “lack of meal planning skills” and one fifth cited “time constraints,” “food cost,” and “ease of cooking” as barriers to adopting plant-based diets [69]. In those contemplating a plant-based diet in Australia, barriers that involved shopping for plant-based ingredients, including their cost and availability, were cited [14]. About one third of former vegetarians reported difficulty preparing

vegetarian food and boredom with food options as challenges that made adjusting to vegetarianism problematic, and this challenge persisted throughout their vegetarianism [51]. Another study asked former vegetarian women why they returned to eating meat, and 6 out of 35 participants had felt that it was too time-consuming to eat well on a vegetarian diet [58]. In agreement with these studies, my findings offer that these challenges may be present even in those contemplating vegetarianism and, if left unaddressed, might discourage people from continuing with vegetarianism as was found in other studies. I surmise that these findings are related to limited nutrition knowledge about how to nutritionally balance meals without meat.

Eating Out: Restaurants and Other Social Situations

Eating out was a challenge for the majority of my participants, particularly at restaurants, but sometimes as a guest in someone else's home. Aaron, for example, felt that eating meat made it "a lot easier to... enjoy a meal when I go out to a restaurant." Also referring to restaurants, he said, "If the people who are making the food aren't used to making that type of stuff, sometimes they may not make the tastiest meals as well." For him and most of my participants, it took will-power to resist eating meat: "Sometimes you just want to have a burger, and so when you have [that] option and you're trying to turn it down, that can make things kinda tough. Cuz I like burgers, and other things. I like the taste of meat."

Limited Vegetarian Options at Restaurants

The grand majority of my participants felt that limited vegetarian options available at restaurants were a barrier to becoming vegetarian. Only Jeremy did not mention the lack of options at restaurants. This could be because he only ate at restaurants a few times per year, and when he did, he was a self-described "social meat-eater."

Evidence of limited selection as a barrier to vegetarianism was cited by Lynn. She mentioned an experience she had during the period while she was vegetarian with her boyfriend: "We've had to leave restaurants before because, a Mexican place, because they had *nothing*. Like, 'oh great!' Whereas before, I just was trying to be as easy as possible all the time." Previous to becoming vegetarian with her boyfriend for that time period, Lynn would eat meat when it was the easiest thing to do. While easy for her most of the time, being vegetarian was more difficult at restaurants. This was even more difficult for Lynn when seeking vegan options at restaurants:

It would be really difficult eating out because I already have a hard time *now*, and most of the vegetarian options are with cheese. So I really don't want, I'm trying to be mindful, and I spent some time with a girl who's vegan and the things she'd have to do, it's just not [*voice trails off*].

Lynn saw the things that her vegan acquaintance went through at restaurants as overwhelming. Islah's perception of the vegan options at restaurants was even more limited:

If you turn vegan, you can't eat out wherever you want to. You have to pick the places where you go. And it's kind of annoying for my friends—I can bet that it's not going to be fun to have to go to a vegan place, just because of me. Well, but, usually when you go to a normal place, they have vegetarian options, so that's cool. They can have their meat, I can have my vegetarian meal—it's okay. But vegan places, *no*.

Islah believed that non-vegetarian restaurants do not offer vegan options. Furthermore, she felt that her friends would not enjoy themselves, or the food, at a vegan restaurant. In fact, about half of my participants were concerned that becoming vegetarian or vegan may mean that they could “only” eat at vegetarian or vegan restaurants. When Lynn expressed doubts about the one-month vegan trial period that she and her boyfriend were planning, I asked her what they were: “That we'll stick to it. And especially when it comes to families, or restaurants. When it's just impossible to get something. I don't want to be the person ‘okay, well, I can only go to Lola Rosa or Aux Vivres. Sorry guys!’ And I don't want to be like that.” (Lola Rosa and Aux Vivres are local vegetarian and vegan restaurants in Montreal.)

Not everyone was concerned that they would only be able to eat at vegetarian restaurants; Aaron pointed out that, “an Indian restaurant's probably gonna have more [vegetarian options] than a barbeque place.”

Dietary Restrictions, Food Sensitivities, Healthy Options, & Budgets

There were additional factors that seemed to further complicate eating out when considering becoming vegetarian. Although she only ate out a few times each year, Paige illustrated one way that medical dietary restrictions can compound the difficulty of becoming vegetarian:

You don't have a lot of restaurants where they serving something [vegetarian] else than salad. So I—it's one reason why I stay as half vegetarian, because it's making things easier on that point. Otherwise I'll just end up with salad all the time [*exasperated/bored tone of voice*]. Oh no, don't want that! I'll have salad at home, but I don't want to have to bring my own meal to go out!... Taking it out of my purse or my bag or whatever is kind of—“she's crazy!” No! Don't want to go through that... And I feel like being in Montreal it may be a little easier because you have

more, there is more restaurant... But if I go at my Mother's place, that's going to be *awful*. Awful. I have Morgan's, McDonald's, and Mike's. So what is one going to eat? I'm going to have my purse all the time full. No! No!

When I asked Paige if she had a preference for eating out or eating in, she said, "I feel like it's easier to go eat at home." For her, it was already "a pain" not only to remember all of her dietary restrictions, but also to remember to ask the server to remove all of the ones relevant to her order.

Lynn wanted to become vegan for both animal rights and health reasons. Her desire to make healthy choices at restaurants made it additionally difficult to choose vegetarian dishes. She observed that the one vegetarian option offered by many non-vegetarian restaurants was typically loaded with cheese, and felt that lean chicken was a healthier option in those cases. She wished that restaurants would make their vegetarian dishes vegan-friendly. She also found it frustrating when vegan options, such as baked goods, were loaded with oil, making them the less healthy choice. Furthermore, Lynn felt ill when she ate soy, making eating at the pub with her friends a struggle:

We do this pub quiz... and they have nothing on the menu except this soy burger. And I can't do soy very well; it makes me break out and my stomach hurts. I don't, I can't do soy. So that's another thing: Alex at home, he'll buy all kinds of frozen fake meats or fake chicken breasts or fake scaloppini or fake deli meats, and I can't eat them. Like, I don't like them that much. I didn't mind tofu, and tofu wasn't bad, but it just does not like me. So we go this pub quiz pretty much every Monday, and after a while, I was like "okay, I'm going to order the fish and chips because I cannot order anything else, like literally anything else," and then yeah, so it's just been kind of, I eat fish now.

Finding a vegan- or vegetarian-friendly restaurant on a budget can further limit a prospective vegetarian's options when eating out. This is exemplified in Lynn's comment about restaurants:

"Honestly, I think we might be sort of priced out by most things. For it to be enjoyable. You know what I mean? [We're] willing to pay in the \$12 - \$15 kind of range, and that's... it's more than I make an hour, let's say [*laughs*]."

Being a Vegetarian Guest

A number of my participants had experiences or opinions about being a vegetarian guest in someone else's home that acted as barriers to vegetarianism. I asked Lynn how she would feel if she and her boyfriend Alex were the only two people at a table who were not eating meat. She responded that it was fine when she felt accommodated, but uncomfortable when visiting her family. Before meeting her vegetarian boyfriend, she would have eaten meat to reduce the discomfort:

Let's say it was with my family in [the Maritimes] in this big thing, and it would only be me or me and Alex not eating meat, that's, it's again, it's bad in a different way. It has nothing really to do with them eating meat, it's the burden. Either I genuinely feel like a burden, *or* someone at the table goes out of their way to point it out and makes us feel weird... And it's cases like that before Alex when I would've just eaten the meat.

Jeremy was about to embark on an internship with a non-profit organization that promotes ethical altruism. He too insinuated that he would feel like a burden if he was vegan during his internship because he would be a guest at his Aunt and Uncle's home: "I'm gonna be living with my Aunt and Uncle for my internship this summer, and if I'm vegan, it's a lot harder on them than if I'm just vegetarian, you know?" His feelings and decision about eating meat was different from Lynn's: "If they make food with meat in it, I'm gonna eat it. So it's not so much that I feel ostracized, it's more to do with respect for the person that's eating meat, *if* that's a factor." Of interest, Aimee also felt that eating meat was the respectful thing to do, and to some degree felt that it was disrespectful for vegetarians to decline to eat meat in certain social situations: "I really don't think it's a good idea to refuse meat when somebody tries to serve it to you at a dinner party or something like that. I just, out of *respect* and friendliness."

Discussion

In those contemplating a plant-based diet in Australia, a number of people felt that that eating out, as well as missing their favourite junk foods, were barriers to eating more plant-based [14]. Most prospective vegetarians will eventually be faced with eating at a restaurant and deciding whether to order a vegetarian dish there. Once they make the decision to order a vegetarian option, they may be disappointed in seeing that the menu they can order from becomes significantly smaller, especially if they are uncomfortable asking the waiter about the options available to them. Those considering veganism may perceive eating at non-vegetarian restaurants as even more daunting, if not impossible. Restaurants may be perceived as difficult places to eat vegetarian by numerous people. My findings also suggest that prospective vegetarians do not want to feel that the only restaurant they can eat at is a vegetarian one. Many prospective vegetarians want to be able to attend the same restaurants that their

non-vegetarian friends frequent, and may also assume (often without asking) that their friends or partners have no interest in trying out a vegetarian restaurant with them. Prospective vegetarians, especially those who have never tried vegetarianism in the past, may not be aware that certain cuisines are more vegetarian-friendly than others.

My findings also suggest that for prospective vegetarians with medical dietary restrictions (such as GERD or celiac disease), or food allergies, finding appropriate options at restaurants becomes even more difficult. Furthermore, those who are on a budget, and those who would also like to choose a healthy dish, may find even fewer suitable vegetarian options when they eat at non-vegetarian restaurants.

My findings also suggest that being a guest at a non-vegetarian's house and refusing to eat meat or other animal products is not easy to do, or to even consider doing, for many prospective vegetarians. They may feel that saying no is simply disrespectful, and may not even feel comfortable asking to find out how the non-vegetarian feels about accommodating them. There may be a sense that they want to prevent the non-vegetarian from going through trouble, and may decide to compromise their values in order to be accommodating of the eating habits of the person inviting them over. Of interest, a qualitative study on vegan youths found that the majority of them eat before an event (such as a friend's Birthday party at a steakhouse), took their own food to an event, or planned ahead with the host to ensure that they had food to eat [62]. There are varied ways to deal with eating out as a vegetarian.

Limited Nutrition Knowledge

Limited nutrition knowledge was common amongst my participants, and came out in my conversations with everyone. Since starting to study nutrition at McGill, I have noticed that most people I encounter have minimal nutrition knowledge. So while this may not be specific to prospective vegetarians, it acts as a barrier nonetheless, putting them at risk for nutritional deficiencies and illnesses down the road. Some participants felt that they did not know enough about nutrition to stop eating meat and remain healthy. Others had beliefs, or were engaging in behaviours, that were possibly setting them up for nutrition-related health problems down the road in their vegetarian journey. Nutrition-related concerns, and deficiencies and their side-effects all deter people from continuing with a vegetarian diet [58]. Paige summed this up when I asked what vegetarianism means to her:

For me *now* it would mean learning about how to deal with no more meat. How to add beans, how to have a well-balanced diet. It's just changing habits a little, but it's more like getting the

knowledge first. If I would have to say I wanted to be [vegetarian] tomorrow, I would say no, I can't be tomorrow. Maybe in a week if I get into the right stuff, and I have to get the stuff in and how to cook it. It's all that little stuff, how to. It's to *know* about it. I want, I would like, really would like to, but I have to know stuff first. Because I can't—I don't want to get sick, I am tired of that [*laughs*]. And I can easily get sick, so I want to keep a well-balanced diet.

Of interest, Paige was one of the only participants who thought it was important for people considering vegetarianism to consult a health care practitioner. The first person she would most likely speak with would be a nurse, and her second choice would be to see a Dietitian. She also mentioned speaking to a Doctor, depending on the nurse's recommendation.

Protein

Protein was the most commonly discussed, but least understood, nutrient amongst my participants. All but one displayed some degree of misunderstanding about protein. These ranged from not realising protein's importance in the diet, to uncertainty about how to replace animal protein with plant protein, to believing that protein-combining is necessary for vegetarians.

Protein-Combining/ Amino Acid Combining

The two participants studying nutrition at university not only believed that amino acid combining was necessary for vegetarians, but had learned this in their respective nutrition programs. A third had learned about the importance of amino acid combining at CEGEP. When asked about her perception of the transition to a vegetarian lifestyle, Aimee alluded to the importance of amino acid combining:

What a person knows about nutrition and health is very much important for that transition, I think. Definitely! Definitely; definitely *so* important. Because I think that I have the knowledge now that's required of me to live a vegetarian lifestyle that's healthy. I mean, how many people really know about which amino acids are limiting in which legumes, you know?

Further beliefs about amino acid combining were expressed by my very first participant, Rana, whose interview I was unable to fully transcribe. Rana was also studying nutrition at university. When I asked a third participant, Paige, if she had ever gone vegetarian in the past, she responded:

I would say yes, but I dropped it quite fast... Because I realised that if I wanted to get all the proteins, I would have to look on the internet... quite often to be sure that I'm not lacking something... I was on the internet looking for, well, my main product was rice, so I wanted to fill with the other protein that was might lack... When I'm talking about protein I'm thinking about the amino acids to make the protein whole.

This suggests that Paige's focus on protein quality ignored the more important aspect of protein quantity. It also deterred her from vegetarianism. Later portions of our conversation revealed that she saw vegetarian protein sources as expensive.

Replacing Animal Protein with Plant Protein

On the other end of the protein spectrum, many of my participants may not have realised that the animal protein they wanted to stop eating needed to be replaced. Lynn, who wanted to become vegan, said: "I've also started doing smoothies when I have the time... Before, I would always do it with [Greek] yoghurt and stuff, but now I'm trying to do it just fruits and vegetables. So it'll be a lot of spinach, celery, a couple of fruits and banana would be the thing." Ellen had a similar mindset about replacing meat: "I'm more likely to eat meat during a dinner meal than I am really for any other time of the day, so that might have to change a little bit, substitute some other kind of vegetable for the meat, or beans or something like that, some other grain, whatever." Neither seemed aware that replacing yogurt or meat with vegetables or grains would result in a low-protein meal and could be problematic. On a related note, Paige compared meat and fresh vegetables in terms of their price and ease of storage, concluding that vegetarianism was more expensive.

While she was likely not referring to nutritional value, Odell's comment about vegetarian meats suggests that it may not have occurred to her that they can be a good source of protein: "Right now I'm thinking if you wants to be vegetarian, why do you have to eat imitate meat?... That doesn't make sense." She was also switching from dairy milk to almond milk, the latter of which contains 1 gram of protein per cup, compared to the 6-9 grams per cup in cow's or soy milk. While one can be vegetarian and avoid veggie meats and soy milk, I got the overall impression that Odell may not have realised the importance of replacing meat with foods high in vegetarian protein. Even Islah, aware that avoiding meat necessitates eating other sources of protein, felt that her knowledge was still insufficient: "The last time I had meat was end of December. But fish, I'm still eating it, like, twice a week, because you have to *learn* how to catch up for the proteins that you're missing." It was March when we spoke.

Iron

A number of my participants experienced low iron levels, or knew of a vegetarian with low iron levels. Some of our conversations suggested limited knowledge about vegetarian sources of iron. Lynn, for example, experienced iron deficiency anemia while she was vegetarian:

I had a couple health problems, and so a Doctor said I was anemic for a while and I'm not anymore, I'm proud to say. I couldn't give blood many times in a row, and you still have to wait

the 56 days, and it was like ‘aghh!’, and so then I started eating fish again, and it was mostly I think because my family kind of made me.

The most effective treatment for iron deficiency anemia, regardless of diet, is supplementation. Lynn did not mention taking iron supplements, but took a multivitamin containing iron. She did not mention trying to eat more iron-rich foods, suggesting that she may not know which vegetarian foods are high in iron.

Islah, on the other hand, was more knowledgeable than average about food sources of iron. She knew some vegetarian foods that are high in iron; some that increase iron absorption; and some that inhibit iron absorption. Unfortunately, she also experiences iron-deficiency anemia, “I have to eat a lot of iron food, because I have iron-deficiency, that’s my [third] anemia.” Her other two anemias are genetic. When I asked her if she takes supplements, she responded, “I used to, but now I don’t because I think I’m good. I eat lentils, beans... Yeah, I feel good. I eat better.” This suggests that Islah may have stopped taking her iron supplement without getting her iron levels checked.

Nutritional Adequacy

My participants expressed a variety of concerns about the nutritional adequacy of vegan and vegetarian diets. Paige, for example, was very concerned about the possibility of lacking nutrients on a vegetarian or vegan diet: “Protein, iron, calcium, magnesium probably. Well for what I’m thinking of, well the protein is first one, iron the second one, and calcium magnesium just after. Because for what I know, milk is the main source of calcium, so it going to lack at some point.” This suggests that Paige knew that iron, protein, and calcium can be of concern for some vegetarians and vegans, but did not know which plant foods contain them. She was unaware that magnesium is not a nutrient of concern for most vegetarians; in Canada, non-vegetarians are more likely to consume inadequate magnesium than vegetarians [113, 114]. Islah also mentioned calcium at the end of our conversation:

I’m thinking about ditching dairy products, but not now, cuz I’m still growing up; I’m young—I’m 19, I need 2, 3 years. I’m thinking about that later. It’s gonna be harder though, to get the calcium that you need. I’m sure if the world initially was vegetarian, it wouldn’t be so hard, cuz everybody would be so familiar to how to catch up for calcium, you know, proteins, iron. But now it’s so strange.

This suggests that Islah believed vegan diets to be nutritionally inadequate for children and teens. Like Paige, she was not aware of vegan calcium sources.

Odell has disliked eating fruit since she was a child, and avoided fruits and fruit juices because she did not like the taste: “I was told that because I don’t eat fruits, so if I go vegetarian, then it might not be as good as other people do.” Her drama teacher and the people she attended Forest Gardening with brought this to her attention. Odell’s drama teacher was vegetarian for many years, and the people she met at Forest Gardening, a permaculture course, were mostly vegan. Their unease has led to her to feel concerned that her aversion to fruits will make becoming vegetarian particularly nutritionally risky.

Athletics and Physical Activity

Concerns about the nutritional adequacy of vegetarian diets for athletes were common amongst my participants. Aaron, whose regular workout regime included weight-lifting, felt that eating meat makes it “easier to, you know, get protein.” Our conversation suggested that he struggled with getting what he felt was enough protein when he tried eating vegetarian in the past:

I tried, I don’t think I’m obsessive about it but I try to eat fairly healthy, and I tend to work out a fair amount, and that includes weight training. So I try to make sure I get enough protein in my diet, and so cutting meat out makes that difficult. And so when I was making meatless dinners for myself, I had to think about where else I was gonna get protein, so that meant going after things like lentils, beans, we were using protein supplements, that kind of thing.

While I do not know if Aaron was taking a protein supplement prior to trying vegetarianism, this quote expresses his apprehension about the protein adequacy of vegetarian diets. Aaron was not my only participant concerned that vegetarian diets may not be adequate for people engaging in lots of physical activity. Ellen also expressed uncertainty that a vegetarian diet could contain adequate protein for her sister’s physically-demanding occupation at the Police Academy. And while Aimee did not feel that meat is essential for people with active lifestyles, she did feel that it is something an active person may want: “If you’re expending more energy than you’re normally used to, you might crave meat.” Her boyfriend, on the other hand, felt that meat is essential when working out: “My boyfriend was saying earlier tonight about how when he’s working out he feels like he needs meat, and so meat makes him feel more energetic.”

Nutrition Myths

Odell, who grew up in China, has some family members who believe that eating meat is absolutely necessary, and that vegetarianism is so unhealthy it could lead to death:

I'm Chinese. I don't know about other people, but in my family, especially my grandma, and they will be like, 'oh, you *have* to eat meat or else you will die. Where is your proteins coming from?' So they really want—they don't really think that vegetarian can make you healthy. Even though there are vegetarians in China or Macau or Hong Kong, they still think that, "Woah, it's not good, it's not completely good. How can you live without meat?"

Although Odell does not believe this herself, her comment suggests that myths like this may be prevalent in Chinese culture and could act as a barrier to someone who believes them.

Hoping to relieve her GERD symptoms without buying the medication she was prescribed, Paige turned to a diet book offering nutrition advice based on blood type. Many of the foods it recommended she avoid were foods she was already avoiding because of her GERD. There were also additional foods it recommended avoiding that did not make a difference to her symptoms. Paige's symptoms were not completely under control since following the book's advice, but she could not justify going back to her Doctor given that her symptoms had decreased. Publications such as these may act as barriers to vegetarianism because of the animal foods they deem "necessary" and/or all of the additional foods they recommend avoiding. They may also put vegetarians who follow them at nutritional risk.

Supplements

Islah expressed conflicting beliefs about vegetarianism and supplementation: First she said that supplements are absolutely essential for vegetarians; later she said that vegetarian diets can be adequate without supplements, but only if done well. This may indicate uncertainty about the adequacy of vegetarian diets. Her comparison of supplements to addictive drugs ("I don't want to fall into that—like, supplements. It's sort of addiction; I don't want to have to take pills every day") suggests strong negative feelings towards taking supplements. Islah was not the only one who felt this way. Ellen had a vegetarian friend growing up who took supplements, and this turned her off of vegetarianism because it seemed onerous: "I wish I could remember what kind of supplement my friend had to take when she was little, but that was always like, 'oh wait, that seems a little more complicated than I want it to be.'" The majority of my participants did not mention anything about supplements.

Discussion

A study on the barriers to becoming vegetarian in the general public found that numerous participants felt that lack of information on vegetarian diets was a barrier to adoption [13]. In those contemplating eating a plant-based diet, the biggest perceived barrier was lack of information about plant-based diets [14]. My findings suggest that while some prospective vegetarians are aware that learning about nutrition is important for the transition, many are not. They further suggest that prospective vegetarians' nutrition knowledge may be very limited, and that not everyone who would like to, or is trying to, become vegetarian is conscious of credible sources of nutrition information, and may be misled by potentially harmful misinformation. Of particular interest, the guidance of a knowledgeable health care professional in making the transition was not sought nor seen as important.

Boyle found that almost half of newly vegetarian participants reported medical problems that could be traced back to improper nutritional implementation of their vegetarian diet [66]. As with my participants, the most commonly reported health problem was iron deficiency anemia, with one in Boyle's study also developing pernicious (B₁₂ deficiency) anemia [66]. Another study found that about half of former vegetarians resumed eating meat because of health-related reasons, such as feelings of weakness and fatigue, the development of anemia, or because of specific nutrition concerns such as not getting enough protein, iron, calcium, and vitamin B₁₂ [58]. This suggests that despite vegetarianism's many possible health benefits, people may not know how to healthfully implement this diet and avoid its possible pitfalls. In combination with aforementioned studies, my findings suggest that insufficient nutrition knowledge at the beginning of the transition may not only hinder the process, but may remain a challenge if left unaddressed. Furthermore, it may not even be a recognized barrier to becoming vegetarian in those who are not aware that their knowledge is insufficient. This is consistent with a large majority of Boyle's vegetarian participants who practised vegetarianism strictly without considering the potential health consequences, although Boyle did mention that people tend to do this with most diets they adopt [66]. Improper nutrition knowledge, and corresponding suboptimal nutrition practices, could therefore eventually lead to illness in new vegetarians. My findings indicate a specific lack of awareness about vegetarian sources of iron, and vegan sources of calcium, and about how to ensure that a vegetarian diet is well-planned.

Some of my participants fell prey to various nutrition myths, sometimes from food blogs, and sometimes from published diet books. Some felt that they lacked nutrition knowledge. A study of undergraduate nutrition students found a correlation between general nutrition knowledge and attitudes towards

vegetarian diets, and that these variables influenced each other: Increased nutrition knowledge contributed to more positive attitudes towards vegetarianism, and positive attitudes towards vegetarianism increased nutrition knowledge [52]. Furthermore, positive attitudes towards vegetarianism contributed to decreased beliefs in non-scientific health claims and nutritional myths [52].

My findings suggest that protein-combining is still being taught today at Canadian post-secondary institutions; for those who learn about protein-combining in school, vegetarianism is less accessible because of an unfounded focus on protein quality to the disregard of the more important issue of quantity. The Academy of Nutrition and Dietetics have asserted since the 1980s that these concerns are unfounded, and that eating a variety of protein foods throughout the day will ensure adequate intake of all essential amino acids [2, 4, 16, 115]. A 1999 study of Dietitians in the United States found that only 31% felt that their education had adequately prepared them to counsel vegetarians [116]. It also found a negative correlation between number of years practising as a Dietitian and attitude towards vegetarian diets [116]. Furthermore, both current and former vegetarian Dietitians had more knowledge about vegetarian nutrition, and more positive attitudes towards vegetarian diets, than those who had never been vegetarian [116]. Dietitians of Canada and the American Dietetic Association advise Dietitians who feel that their knowledge of vegetarian nutrition is lacking to educate themselves, or to refer clients to a Dietitian with knowledge in this area [2]. A 2014 study on adherence to Dietitians' nutritional recommendations is supportive of this approach, finding that patients were more adherent when a Dietitian's approach was personalised to their dietary preferences and needs [117]. My findings reinforce the idea that health care professionals may have important gaps in knowledge about vegetarian nutrition to address. They also reinforce the importance of Dietetics educators, and practising Dietitians, keeping up-to-date on vegetarian nutrition. For a listing of evidence-based vegetarian nutrition resources for health care practitioners, clients and patients, see Appendix D.

My findings also suggest, on the other end of the spectrum, that many prospective vegetarians are not at all concerned about adequate protein intake, and may believe that meat, dairy, and eggs can be substituted with vegetables or grains. Furthermore, how to make the appropriate substitutions may not be well-known, and limited knowledge about replacing meat may lead some to believe that vegetarian food is more expensive. In fact, very few of my participants mentioned eating beans, lentils, vegetarian meats, nuts, seeds, seitan, tofu, tempeh, and other concentrated sources of plant protein to replace animal protein. A vegetarian diet may be low in protein if it is centred around fruits (e.g., fruitarian or raw vegan diets); is low in calories; incorporates too much junk food (e.g., chips, sodas, sweets); or lacks

in legumes (e.g., beans, soy, lentils) [5]. Furthermore, vegan sources of protein may be more difficult to digest than animal sources, and can be offset by a slightly higher recommended protein intake [5].

My findings further suggest that there may be some apprehension to take supplements in prospective vegetarians regardless of their motivations for the diet. A 2015 study by Radnitz, Beezhold, and DiMatteo found that vegans primarily motivated by health consumed more fruits and fewer sweets, but also fewer vitamin D-containing foods and fewer soy foods than those motivated by ethics [9]. Those motivated by ethics were more likely to take a vitamin B₁₂ and D supplements, and a multivitamin, than those motivated by health [9]. The authors surmised that vegans motivated by health may be more focused on obtaining nutrients from foods than those motivated by ethics, and thus may eschew supplements [9]. For years, the Academy of Nutrition and Dietetics Dietitians of Canada have encouraged vegetarians to take special care in ensuring adequate vitamin B₁₂ intake, either from foods or supplements [2, 4, 16]. This indicates potential nutritional problems for vegetarians and prospective vegetarians who do not understand how to obtain these vitamins from food and do not understand the importance of supplementing when food sources are not possible or practical. None of my participants mentioned concerns about vitamin B₁₂, suggesting that prospective vegetarians may not be aware that B₁₂ is a nutrient for vegetarians to pay attention to.

My findings also signify a lack of awareness in prospective vegetarians that well-planned vegetarian diets are nutritionally adequate for children, teens, and athletes. Both Dietitians of Canada and the Academy of Nutrition and Dietetics have long asserted that well-planned vegetarian diets, including vegan diets, are nutritionally adequate for all stages of the life cycle, including athletes, infants, children, and teens, but also adults, seniors, and pregnant and lactating women [2, 4, 16].

Meat-Eating Habits of Parents, Partners, and Friends

Growing up in a Non-Vegetarian Home

Most of my participants did not begin to seriously consider vegetarianism until they moved out of their parents' place. Aimee, whose parents accommodated her pescetarian diet as a teen, was a notable exception. As such, it would seem that growing up in a non-vegetarian home becomes less of a barrier for children whose parents give them the choice. Evidence of this barrier is seen in a passage by Lynn, who did not enjoy eating meat very much in the first place, and then saw a television exposé on the way that farmed chickens are treated:

After high school, I was very busy all the time in CEGEP, so 17 to 19 or whatever, I spent most of my days downtown, and I basically never really ordered—when I ordered food out or Subway, it would never be meat—I’d always be vegetarian. But when I got home, I would just eat whatever they had. So you see? It’s not really a principled thing. Sort of where I could do it—I don’t know if it’s laziness, it sounds like it’s laziness—but where I could do things on my own... I would do it.

Although she continually attributed her meat-eating in her teens to laziness, Lynn also felt more able to eat the way she wanted to when she was purchasing her own food. Further evidence of this barrier is seen when Islah contrasts the way that grocery shopping worked when she lived at home with her parents, and grocery shopping when we spoke, where she buys her own groceries:

And so I had to do the grocery stores on my own, and usually in [North Africa], I wouldn’t do that, my Mom would do that. Or my Dad. So I could actually see the ingredients—not just eat them. And I felt like I have a great deal of control over my food, unlike back home... And I thought about [becoming vegetarian].

Ellen discussed how her parents’ purchasing decisions affected her eating habits growing up and said “I quite like being able to buy my own food”. She had also experienced lack of control over the foods she ate when she lived with a host family in Argentina for a year:

Living in Argentina... I had even *less* control over what it was that I was eating... So that was definitely one of the frustrating aspects, because... you live with those host families, they feed you, they provide you housing... you don’t have to pay for it... so you don’t get to choose what it is that you’re eating... I think there were a number of vegetarians that went out on exchange, so that’s something you have to include in your paper work, right?... I didn’t have that on my form or anything, so I ended up in a family that ate meat and that served me meat... It was a *weird* experience not to be in control of the food, and I—I didn’t like it. I mean, the food was really good but it was just not—not the things that I would choose for myself, necessarily, so it’s definitely been good being here and being able to choose what I get to eat.

Dating a Non-Vegetarian

Five of my participants were in a romantic relationship when we spoke. Of these, one lived with her partner; two lived in the same city as their partners; and two were in long-distance relationships (one of whom was married).

When Odell cooked meals for her boyfriend and herself, she wanted to ensure that he would enjoy what she prepared: “He loves, he likes meat and then so sometimes when you cook—oh he’s gonna love this, then I’m gonna cook this.” She goes on to say that she tended to cook pork and other meats when he

was around, and had yet to cook him a vegetarian dish, even though she had no problem cooking vegetarian for herself. When she suggested making him a vegetarian meal, he reacted negatively; if they were hugging, for example, he would let her go. She believed his response to be all in good fun, but deep down, she was not entirely sure how he would feel about eating a vegetarian meal that she cooked for him.

Lynn used a metaphor describing her boyfriend's influence on her eating habits: "I do think that being with my boyfriend is a huge factor in all of this now too: a solidifying thing. But also solidifying negatively because I want to go further and he wants to stay here. So it's like... jelly." This suggests that being with her boyfriend, Alex, solidified her desire to be vegan because he is vegetarian. Yet his hesitation to stop eating other animal products had the opposite effect. Our conversation gave me the impression that Alex may not have been open to conversations that Lynn wanted to have about hens farmed for their eggs. As such, she compares his influence to jelly, a semi-solid. She also mentioned that living with Alex was a barrier to becoming vegan: "I think I *could* do it, and that would be based on principle. Because being vegan is not easier... And I haven't been able to make the jump... And I'm making excuses. It would be really really difficult with Alex right now; it would be super difficult. But it's obviously not impossible [*uncertain voice inflection*]." When I asked Lynn in what way she felt as though she was making excuses, she responded, "Waiting for [Alex] to get on board."

Paige was in a relatively new long-distance relationship with her partner. He lived in the States, and she visited him there from time to time. When I asked her if her partner—who ate lots of meat—might affect her eating habits and her consideration of vegetarianism, she responded:

Yeah, at some point because it's, if I'm going to make my oatmeal, well, he's going to because I'm not a kitchen person [*laughs*]... I think he won't agree on removing all that meat. He's going to still eat it and he have to figure out what I'm going to eat and make two different plate all the time, this kind of thing. So by having chicken and fishes and all the other stuff it[s] more balanced and less painful. And if he want[s] from time to time to have his red meat, just go for it, and I'm going to have my other stuff. And the side dish[es] are often vegetable, so I'm going for big side dish. So it[s] just balance, it's not being too picky; it... help to have people being understand[ing].

Paige did not see herself as the cook in their relationship, and felt that her meat-loving boyfriend would not agree to eat vegetarian meals with her if she were to become vegetarian. Instead, she imagined him cooking two meals, and felt that conceding to eating chicken and fish meat would alleviate him of this

additional workload. This suggests that her partner's eating habits would be less of a barrier if she thought that he would be willing to eat vegetarian meals with her. Another participant, Aimee, was also in a relatively new relationship. The person she was dating when we spoke was her first boyfriend. When discussing her living arrangements, Aimee said:

I stay at my boyfriend's house sometimes. And food-wise, that's a problem [*laughs*]... I'll stay at his place two [or three] nights a week... and he never has anything in his fridge... He likes to cook, but he doesn't like food to go bad... and I think there's also an aspect of laziness. So he and I go out to eat a lot because... 90% of the time it's me going to his place... Sometimes we go to the grocery store and get some food then come back, but often we go out to eat... Because we go out to eat so often, we don't always want to go to a sit-down place that's gonna take a long time and cost a lot of money, so sometimes he'll suggest going to a place like Thai Express or something like that, something along those lines. Or, we went to this place called Piri Piri... it's kind of fast food Portuguese food, like grilled chicken and potatoes, it's so good. But that type of thing makes me not so much like going out to eat, because I feel like I'm not being healthy.

Aimee's response suggests that spending lots of time with a partner who does not cook necessitates eating at restaurants often, which makes vegetarianism difficult and has health implications, something Aimee picked up on. This suggests that her partner's eating and cooking habits affected the way that she ate. Later in our conversation, Aimee said: "I think probably having other influences in my life is contributing to the fact that I'm eating more meat now. Like Evan, my boyfriend, and my roommate Rick, primarily probably those two, those two influences are changing my habits a little bit."

Aaron also mentioned his partner's eating habits in terms of his consideration of vegetarianism. He and his wife are currently in a long-distance relationship, but he commented on what the future might hold. Despite being with someone who enjoys eating meat less than he does, Aaron saw his decision to go fully vegetarian as being tied to his partner's eating habits:

[Vegetarianism is] something I could return to in the future, and I think a lot of that depends on how convenient it would be given family considerations, so when I move back in with my wife. You know, how she's gonna eat, that sort of thing, whether or not she wants to. Yeah it depends on how committed I am to it, and whether or not I want to go through a lot more effort to have that kind of diet... Like, making a separate meal if the person I'm eating with doesn't want to have vegetarian all the time... *Oddly* enough, she's probably not as committed to eating meat—she doesn't really like meat as much as I do. So I think that she probably would be more okay with going vegetarian *most* of the time, but I don't know about all the time though. Because sometimes she does just like a burger or a steak as well.

Spending Time with Non-Vegetarian Friends

About half of my participants found that spending time with non-vegetarian friends made trying to become vegetarian more difficult, but to varying degrees. This quote from Odell illustrates this barrier the most profoundly:

When I try to be [vegetarian], and I went out with friends, a group of friends, my best friend, and I'm like, "okay, I want to be vegetarian." Then they're like, "okay, well, we will order a lot of meat, you know, we won't care if you're vegetarian—you can order your dish." But then when you see all the delicious meat, then you be like "ugh—my God, I'm vegetarian [*sorrowful*]. Eat vegetables!" And then when you try—when you try to eat meat, they'll accuse you, like, "oh well, you're vegetarian, stop!... So it's really, really hard. So my teacher who were a vegetarian told me never ever tell anyone that you're a vegetarian [*laughs*]."

Odell felt that the eating habits of her friends influenced her a lot, especially in comparison to my other participants. Later in our conversation, she described an earlier time in her life when she was more successful at avoiding eating meat: "I... hang out with my other vegetarian friends... it makes things much easier. I think it's just the people who you hang out with influence a lot." Of interest, a 2012 study concluded that the frequency of meat consumption of family and friends had a greater influence on people's meat-eating in Indian and Chinese collectivist cultures [109]. Perhaps Odell's Chinese cultural background, which she mentioned many times throughout the interview, affected the degree to which this factor played a role in her eating habits.

Discussion

A 2002 study by Barr and Chapman found that, amongst other reasons, about one fifth of former vegetarian women resumed eating meat because they had experienced a change in living situation, such as moving in with meat-eating family [58]. One participant resumed eating meat because it was easier given that most of her friends were non-vegetarian [58]. Young vegans in a qualitative study by Larsson *et al.* reported significant difficulties maintaining their lifestyles while still living at home, often because they lacked nutritional or food preparation knowledge, or because of parental nutritional concerns, both of which led to arguments at meal time [59]. Vegetarians and vegans in other qualitative studies found that most participants had experienced questioning or teasing of their lifestyle by friends or family, with family members questioning vegetarianism's nutritional adequacy, and friends making light-hearted jokes or becoming the "vegan police," scrutinizing food choices for "purity" [62, 118]. Some qualitative studies found that young males experienced more familial acceptance of their veganism or vegetarianism than young females, possibly because men are typically seen as more capable of making

decisions about their bodies [62, 119]. Related to this, a 2002 study by Lea and Worsley found family eating habits to be a greater barrier to women's adoption of a plant-based diet than men's [13]. A study on diabetics and pre-diabetics found that family eating habits were cited as barriers to adopting plant-based diets by about half of participants [69]. One study found that men and women were equally likely to join a vegetarian group, and that joining such a group may make the transition to vegetarianism easier because of the social support if provided [51].

To overcome these barriers, young vegans engaged in extensive discussions with family members [62]. These discussions usually, but not always, resulted in parents accepting that their children could be healthy on a vegan diet [62]. This suggests that communication skills may play a role in overcoming the difficulty of becoming vegetarian in a predominantly meat-eating social circle or family. Yet some young vegans who had become vegetarian while living at home did not become vegan until they moved out [59, 62]. Will-power is not enough to maintain veganism, and those who adhered more strictly to the lifestyle were members of the punk subculture, an environment encouraging of veganism [62]. Furthermore, the availability of a vegan school lunch, even when they were still eating meat at home, facilitated young vegans' transition process [59]. Furthermore, a 2012 study by Haverstock and Forgays found that current vegetarians were more likely than former vegetarians to be members of a vegetarian group or association, and a large portion of former vegetarians knew very few other vegetarians [51].

Consistent with previous findings, my findings suggest that a "lack of social support" may sometimes be described as the mere presence of non-vegetarian friends and family, and the absence of vegetarian friends and family: Living with non-vegetarian family, dating non-vegetarians, and/or having few vegetarian friends may be significant barriers to both prospective and current vegetarians. This may be because, as Jabs, Devine, and Sobal's vegetarian participants suggested, many non-vegetarians do not understand vegetarian norms, definitions, and personal identities, and are unaware of the ethical aspects of vegetarianism [118]. For example, non-vegetarians may define vegetarianism differently, as one participant's sister who used egg-based mayonnaise in "vegan" potato salad [118]. My findings further suggest that spending lots of time eating with non-vegetarians puts prospective vegetarians in positions that require them to exercise significant willpower to resist eating animal products. Being in this position may require prospective vegetarians to identify as such, and to deal with the stigma, arguments, "judgement," and social discomfort that saying no to animal products sometimes caused. Often, prospective vegetarians may choose to eat animal products they prefer not to eat in order to reduce social discomfort. This is similar to what some vegetarians may do [118].

My findings suggest that non-vegetarians are often not perceived as being unsupportive, even when their actions unknowingly create difficulty for prospective vegetarians, such as parents forcing children to eat meat, or partners refusing to discuss animal welfare issues or reacting negatively to the prospect of a home-cooked vegetarian meal. The prominent presence of—living with, dating, and being friends with—non-vegetarians in the lives of prospective vegetarians was a barrier in and of itself. My findings also suggest that different people might find the presence of non-vegetarians in their lives difficult to differing degrees depending on a number of factors, including their enjoyment of meat, personality, and the actions of non-vegetarians in their lives (e.g., parents who cook vegetarian meals for their vegetarian children). Something that feels only slightly difficult for one person (such as eating out with non-vegetarian friends) might feel exceptionally difficult for another. My findings further offer that a lack of social support may often (but not always) be a consequence of prospective vegetarians' apprehension to discuss their eating desires and motivations, and to ask for support from people in positions to provide it, such as friends, family, colleagues, and others such as restaurant wait staff.

Craving and Enjoying Meat

Most of my participants really enjoyed the taste of meat. Enjoying eating meat was not only a frequently-cited barrier to vegetarianism, but also a main contributor in reverting to meat-eating for those who tried becoming vegetarian. Resisting meat, according to Aaron, takes will-power: "Sometimes you just want to have a burger, and so when you have [that] option and you're trying to turn it down, that can make things kinda tough. Cuz I like burgers, and other things. I like the taste of meat." Aaron mentioned the time when he tried to become vegetarian:

I tried [vegetarianism] for a while, and I found that I missed eating meat. I missed being able to go out and have a steak, and I missed steak, that kind of stuff... I missed the taste. Yeah I think it was probably more of a craving thing and also the nutrition thing too. It was harder getting the types of nutrition that I was looking for in a way that was necessarily satisfying, just you know, to the palate and whatnot.

Aimee, a nutrition student who had previously been pescetarian for six years, said: "Cravings is probably a big one for me... I don't really cook much meat at home, so if I crave meat I would kind of sometimes rather eat out." She then went on to say, "I don't believe in limiting your diet too excessively because I think that fulfilling cravings is important for your mental health." When I asked her what limiting the diet too much might look like, she responded:

I would say that going too far would—for me—would be saying “okay, I’m *never* gonna eat poutine again” or putting unnecessary restrictions on it, like “I’m only going to eat poutine once a year. I’m not going to eat ketchup anymore because it’s got too much salt and sugar in it, and I’m not gonna eat any chips anymore.” For me, because I guess I do already have a pretty good handle on my diet, and those are some of the examples of things that maybe I don’t like that much about it, but. I believe there has to be that balance—don’t restrict all those things because then you’re not gonna be happy, those cravings are gonna build up inside of you, and you’re just gonna think about poutine a lot.

Aimee had expressed that from a health perspective, she saw no problem with eating meat once in a while. I found it interesting that she did not use meat as an example when referring to denying cravings. This may have been arbitrary, or it may suggest that Aimee saw a difference between avoiding food for health reasons and avoiding food for ethical reasons: “Even though I’m in [nutrition], ethics and environment are stronger contributors than nutrition knowledge.”

Discussion

Enjoying eating meat was the most commonly cited barrier by men and women in Lea and Worsley’s study of the barriers to vegetarianism in the general Australian public [13]. A preference to eat meat was also cited as a barrier to adopting a plant-based diet by diabetics and pre-diabetics in 2015 [69].

A preference for the taste of vegetarian meals, and a distaste for meat, increases a successful transition to vegetarianism [53]. More vegetarians than semi-vegetarians dislike meat’s hedonic properties and enjoy the taste of vegetarian food [49, 50]. Given that disgust reactions to meat may be evoked by vegetarians’ moral stance, however, it is possible that those who fully abstain from meat also become more disgusted by it simply as a result of abstaining, making vegetarianism easier [67, 110]. Regardless, my findings suggest that those who really enjoy eating meat may experience more difficulty in becoming vegetarian, and in becoming fully vegetarian, than those who do not care much for its taste.

Two studies asked former vegetarians about their reasons for returning to eating meat [51, 58]. One fifth of former vegetarian women in one study, and over half of male and female participants in another, cited missing the taste of meat, or meat cravings, as challenges [51, 58]. Often these challenges were already present at the beginning of the transition, made adjustment to vegetarianism difficult, and then continued throughout [51].

Non-Assertive Attitudes Towards, and Communication of, Eating Preferences

As defined by Registered Psychologist Dr. Kim Maertz, assertive communication involves honest, open, straightforward communication of one's thoughts, feelings, and beliefs in a way that respects the rights and needs of others [120]. Use of non-assertive communication was a covert barrier to becoming vegetarian; very few of my participants explicitly stated that communicating about eating was a barrier to becoming vegetarian. Yet the beliefs that they expressed, as well as their experiences communicating about their eating preferences, revealed that it was a significant barrier to almost everyone. Many expressed fear about becoming, or being perceived as, aggressive, if they were to openly share their desire to be or become vegetarian. Aaron considered making a point of saying that you are vegetarian as "bringing it up as an issue." Aggressive communication is characterized by expressing feelings, thoughts, or beliefs, in a way that violates the rights and needs of others [120]. It is disrespectful because the communicator believes that their wishes are more important than those of others [120]. My participants' fears of aggression often led to passively communicating about their eating preferences. Passive communication, according to Dr. Maertz, involves "failing to communicate or communicating in a way that disregards your own rights and needs, or allows others to infringe on your rights. The main purpose of passive behavior is to avoid conflict at all cost"; passive communication often result in lose-win situations in which the passive communicator does not get what he or she wants [120]. Assertive communication does not mean that people who use it get what they want; making a request, for example, puts the receiver in a position to decline or accept the request [120]. My participants' apprehension to openly, directly, respectfully communicate their desires to avoid eating animal products meant that others were often unaware of these desires, and of how eating these things made my participants feel. Without information about my participants' desires, other people in their lives had no opportunity to accommodate, even if they would have wanted to.

When Odell and I spoke, she had started a new job bussing at a Japanese restaurant. One time while she was working, her boss was talking to the other employees about a male vegetarian customer, saying "usually it's female who is vegetarian, but a guy is vegetarian—I don't believe it." Odell was not sure what to think or how to respond to this comment, but it may have shaped her comfort level revealing her status as a prospective vegetarian. One thing she saw as a major barrier to becoming vegetarian was receiving free non-vegetarian meals at work. When I asked Odell if they would still give her a free meal if she were to ask for a vegetarian meal, she responded:

Uhh, I haven't tried asking... But I think I can get a salad if I want... But I feel bad every time taking salad while everyone's having the cooked meal... [Bad] about being a vegetarian and different from them, and they might have to provide special meals for me. So I don't feel like making them do more stuff just for my diet.

Odell felt uncomfortable asking for a vegetarian meal at work. Perhaps because she equated "asking" her co-workers for a vegetarian meal, as phrased in my question, with "making" them cook her a vegetarian meal. She also assumed, without asking, that cooking a vegetarian meal would require more work. After we spoke, I viewed the menu of the restaurant she worked at online. It contained vegetarian meal options that were cheaper and essentially the same as the other meals, minus the meat. There were also vegetarian protein sources that could be ordered as side dishes or added to meals: edamame, eggs, and tofu. By avoiding asking for a vegetarian meal, Odell was using a passive communication style, and did not exert her right to ask for what she wanted.

Further regarding restaurants, Islah and I had been discussing veganism when she expressed concerns about eating out with her friends. She did not think that vegan options could be ordered at most non-vegetarian restaurants. When I asked Islah how she thought her friends would feel eating at a vegan restaurant with her, she responded:

Honestly, if one of my friend[s]... would have imposed that choice on me, no. Annoying... "You want to get a muffin?" "No, I'm vegan." "Do you want to get a hot chocolate?" "No, I can't, I'm vegan." "Do you wanna get a sandwich?" "No, the bread is not vegan." Ooh, it's kind of annoying... because it would be too much. Too much to ask... [of] a friend. Cuz when we eat out, it's supposed to be fun, we're supposed to enjoy, everyone is supposed to get the food that he likes, that he knows, it's a personal choice—you can't impose to people choices like that. As I said, vegetarian, okay, it's like a normal meal but without meat, but vegan, *no*. The recipe is all about vegan.

This suggests that Islah would feel imposed on eating at a vegan restaurant, because she would have to order a meal without the animal-derived ingredients that she typically enjoys. She felt that her non-vegetarian friends would feel the same way, only enjoy eating out if it involved meat or other animal products, and that trying unfamiliar foods would not be desirable to them. Islah also felt that her friends would feel annoyed about and respond negatively to an invitation to a vegan or vegetarian restaurant. Yet Islah had not tried extending such an invitation, nor had she expressed her interest in going to gauge their reactions. She also felt that it would be annoying if she invited a vegan friend to grab a bite to eat, and they constantly declined her invitations. The interaction that she conjured up involved an aggressive

communication style characterised by unwillingness to compromise on behalf of the fictitious vegan friend. Perhaps she imagined that this may be how interactions with her friends would become if she was vegan. I found Islah's use of the word "impose," and her assumption that her non-vegan friends would feel annoyed about going to a vegan restaurant, fascinating.

Further evidence of beliefs that led to non-assertive communication was expressed differently by Aimee. She saw a vegetarian's decision to avoid meat in certain social situations as imposing on non-vegetarians:

I don't agree with vegetarians who will go to somebody else's house and be served meat and not eat it... I think that being vegetarian is a *personal* choice, but that choice should *never* be—never, ever be forced on somebody else, and by going to a dinner party—using this as an example, this thought—by going to a dinner party and refusing to eat... a meal that includes meat that somebody has prepared for you, I think that that is forcing your views on somebody else. Simply by... saying that you don't want to eat it is doing that, I think. My personal opinion... I really don't think it's a good idea to refuse meat when somebody tries to serve it to you at a dinner party or something like that. I just, out of *respect* and friendliness... I guess I should say that vegetarians that are more restrictive and more "yes or no," more—and that's where veganism comes in, and I guess that I should say that I respect those people too, because it wouldn't be fair with my views on industrial agriculture and stuff like that, it wouldn't be fair to say that I think those people are *wrong* to act that way. I don't think that. But just for me, it's more, important I guess, to respect your family and friends in that kind of a situation.

This passage suggests that Aimee felt that vegetarians who avoid eating meat in certain social situations are imposing their personal choice, and forcing their views, onto others. She believed that eating the meat someone has prepared for you—even though it makes you feel uncomfortable—is a gesture of respect and kindness. It suggests that Aimee felt that the values of a vegetarian dinner guest and a non-vegetarian dinner host could not be simultaneously respected, and that in such situations, it was more to respect the values of friends and family than your own values. When I asked Aimee if she would feel disrespected if she were to invite a vegetarian for dinner and they did not feel comfortable eating the meat, she responded: "*No*, no no no no. In that case I would have sympathy because you know, I've *been* there. That, to me, would be totally different. Plus I'm just a very sympathetic person, I'm very very polite person, I would never, I wouldn't—no, I wouldn't feel disrespected, no, no definitely not."

Here, she applied a double-standard to herself: She felt that it was not okay for her to refuse meat others served her, but that it was fine for others to refuse meat that she served them. Although she

would not feel disrespected if a vegetarian did not eat the meat she served them, she assumed that others would feel disrespected. She also described being understanding, sympathetic, and polite towards vegetarians who feel uncomfortable eating meat, but believed that most dinner party hosts would not be so polite and understanding. Making assumptions about how other people feel without asking them is one characteristic of non-assertive communication. This passage also expresses some common irrational beliefs that lead to passive communication, such as: My needs should never come first because that would be selfish; and I cannot say no to others because that would make them upset with me [120]. This made me wonder about Aimee's past experiences as a young pescetarian dinner guest.

Aimee also expressed concern about vegetarianism within families: "There are definitely people that raise their children on a vegetarian lifestyle, and it's not really their children's choice, right? I mean, I guess it could be, but it isn't necessarily; I'm sure there are people out there who impose a vegetarian lifestyle on their children, and that might be a hard thing to do." The idea that bringing up children into a vegetarian lifestyle (due to values of sustainability, health, and/or compassion towards animals, according to my participants), is imposing on them, is fascinating. While eating meat had not been imposed on Aimee by her family, it had been imposed on the rest of my participants. No one but Aimee had felt in a position to choose a vegetarian lifestyle until they moved out. However, none of them saw this forced choice as imposing on them in the way that they saw their desire to be vegetarian as imposing on others. Not even Islah, who vividly remembered needing to drink a lot of water with it when she succumbed to eating a lamb that her father had killed after being begged to do so. Lynn, describing how she would feel saying no to meat served by her parents, said: "I would feel sad because I know that I'd let them down. In some weird way that I shouldn't feel sad about and they shouldn't be let down about."

Paige also did not eat out often, but imagined that if she were to become vegetarian, she would have to make a number of modifications to dishes in order to accommodate her GERD on top of her vegetarianism. Here, she briefly explained: "I just can't—'can you remove that that that now?' It's at that point I feel they are going to find me very picky because, and that's making it harder." This suggests that Paige did not feel entirely comfortable asking for a dish to be modified, and was concerned about what others might think about her if she were to ask. Further portions of our conversation suggested that Paige felt more comfortable waiting until she lived on her own to become vegetarian than she did asking her sister if she could modify the way she cooks. Just the thought of communicating her desire to

be vegetarian was daunting. A different perspective on assertiveness was offered by Jeremy, a former ballet dancer, who was accustomed to breaking gender norms, vegetarianism included:

It's just an admirable character trait to be who you are and, not to just change with whoever's around you or not to try and please everyone, you know. I think people like that and, I think it's even *more* to the extent that it's admirable—I think it's even *more* admirable because I'm a guy and straight and you know, I'm somewhat muscular and, because I'm breaking more of the norms, it's like, the fact that I just stand my ground is even more admirable to the extent that it's admirable at all, I guess.

Discussion

In general, my participants wished to avoid eating meat because of the harm it caused them: For those primarily motivated by ethics, this harm was psychological. As Lynn put it, “it's not like when people throw around guilt when they're on a diet and they eat chocolate. I don't understand how that's guilt, that's not guilt. It's not. Maybe shame at worse, but it's not guilt. Whereas here, because there are ethics involved, guilt does play in.” For those primarily motivated by health, this harm was perceived as physical. Many of my participants expressed that relieving feelings of ethical guilt was a positive consequence of vegetarianism. Yet many also felt that others in their lives—boyfriends, parents, co-workers, etc.—preferred them to eat meat because it made life easier and more convenient for them. In many of these cases, my participants ranked their desires to avoid eating meat or other animal products as less important than the desires of those close to them. They often ate meat, or avoided expressing their preferences, because they did not want to be seen as rude or ungrateful. Perhaps unknowingly, these passive behaviours communicated the idea that their ethical beliefs and values, and/or their health, were less important than the convenience of others, and less important than the possibility of being perceived negatively for being different.

The idea that going to a vegetarians restaurant imposes on non-vegetarians, while going to a non-vegetarian restaurant does not impose on vegetarians, is interesting, and perhaps indicative of a double-standard. Perhaps this is because vegetarians are typically a minority, and, viewed in a utilitarian manner, the least number of people are inconvenienced. However, the degree of imposition might also be relevant to consider. Similarly to the way that meat, dairy, and eggs are unavailable at vegan restaurants, foods typical for vegans to eat such as soy foods, lentils, and whole grains [121], are often unavailable at non-vegetarian restaurants. When vegetarians (and especially vegans) attend a non-vegetarian restaurant with friends, they often must order a meal without these familiar foods, may have one menu option to choose from, and that dish often lacks sufficient protein and/or calories. Eating such

a meal may actually be more inconvenient to a vegan than eating a vegan meal is to a non-vegan. Vegan restaurant meals usually contain sources of protein and sufficient calories, and non-vegans may choose any dish on the menu.

It is possible that this finding exemplifies a difference between vegetarians and semi-vegetarians (many of my participants' diets fit the textbook definition of the latter although they did not necessarily identify as such). Perhaps people who are more comfortable assertively communicating about their eating preferences are more likely to effectively transition to vegetarianism. Alternatively, perhaps people who feel more strongly about vegetarianism are more likely to assert their dietary preferences. A number of my participants admitted to feeling less convinced of vegetarianism by the time we spoke as compared to other times in the past. Another possibility is that assertively communicating preferences is a consequence of having made a decision to fully commit to a vegetarian lifestyle, and that a person's level of comfort asserting themselves as a vegetarian increases over time as they practice these skills. Furthermore, it is possible that deciding to become vegetarian, and publicly declaring this to others, puts pressure on the vegetarian to uphold their word and abstain from certain animal products. This was evident in a study by Jabs, Devine, and Sobal, in which the vegetarians they interviewed only ate animal products they would not normally eat in the presence of non-vegetarians, and that they felt more comfortable violating their dietary preferences if the violation could be concealed from others [118]. Violating their preferences in the presence of people who knew they were vegetarian made them feel considerably more guilty [118].

“Black and White”: Seeing the Transition as Strict

Just over half of my participants saw the transition to a vegetarian diet—or a vegetarian diet itself—as being strict and prescriptive, as opposed to, say, individual and adaptive. They felt that being vegetarian necessitated a strict “black and white” (as Jeremy and Paige put it) stance, and *literally* never eat meat again. The rest of my participants felt that personalizing vegetarianism to their own liking, and making exceptions when they felt appropriate, was acceptable; these latter participants did not experience this additional barrier to becoming vegetarian. One striking example of how this “black and white” view prevented one of my participants from seeing herself as vegetarian in the future is illustrated in this passage by Ellen:

My one major weakness with eating out is—I don't do it often, maybe every, I don't know... maybe every 4 months—I get—but only at—I never eat a McDonald's burger because that's disgusting, and any fast food restaurants are definitely out. But a really good, juicy pub burger or

a home-diner restaurant good quality burger is the best. My favourite meal... That's one thing that for me would be hard to give up, I think. If I were to become a vegetarian. And it's not even—obviously not an everyday thing, not even a weekly thing, it's just very occasionally I eat that way, and it's one of the things that would definitely hinder me from becoming vegetarian... I guess I'm realising more and more as I'm talking this through with you, I don't know that I'd ever really become a full vegetarian, so to speak.

This suggests that Ellen would not consider becoming vegetarian if it meant that she could not enjoy a gourmet hamburger about three times a year. Our interaction made me question what it means to be vegetarian. Can one be vegetarian and choose to eat meat a few times per year as a treat?

More than half of my participants felt that the stricter a person is about their vegetarianism, the more difficult it is for them to maintain it. Here, Aaron expanded on this when he discussed his trial of vegetarianism:

Yeah cuz I'm not as restrictive of myself, or maybe as strict. Some people who are ver—keep strictly to it will have a more difficulty—or they'll just have to have something made special for them... Yeah I mean it might make it a little more difficult for them, they might have to ask for some special accommodations. So maybe it wasn't quite as enjoyable as if they were at home where they had full control over what they were making.

My participants also felt that the more animal products a person cuts out of his or her diet, the more difficult it would be. Almost all of my participants felt this way. Jeremy explained this in detail:

Each next thing you cut out has more severe consequences than the last thing you cut out. Because now you're left with, because I cut out meat so there's a decent amount of things I can make without eating meat, but if I cut out milk too, it gets harder, you know? If I cut out milk—it's a lot harder to cut out milk after I've cut out meat than it is just to cut out meat. So the curve is upwards sloping.

Paige, on the other hand, said: "I'll take the example being white or black; you're just being like that, just not question. Sure it make things easier or harder depending of what you're do, you're doing outside of it, but it's just when you're used to it it's just normal." This suggests that while Paige could see being more strict as being more difficult, she also felt that a person can adjust to this over time.

In a similar vein, *not* being "black and white" enough, by being pescetarian instead of vegan, caused Lynn to feel quite a lot of guilt. It seemed that she wanted to take a "black and white" stance on veganism, and felt uncomfortable with the grey zone that she felt she was in:

In my case for trying to be vegan, it is to be able to assume some principles in all of this. To point to things like, “no, I do not eat animal products because it’s cruelty” instead of “no, I don’t eat actual animal flesh, well sometimes fish, but you know the chickens [for their eggs] I don’t mind.” Right? That I don’t like because I can’t stand by that. So a reason for becoming vegan would be to resolve that problem... I feel weird about this state of, even just vegetarian: The eggs and dairy. Because, okay, it’s not hypocritical, but I feel it could be argued that it’s hypocritical. And that’s why I’m kind of eating fish because some people do; it’s not like I find fish less bad than pigs. It’s because some people do, so I can kind of in society get away with that, because ovo-pescetarian is a thing. And it happens, I think just out of luck [fish] happens to be something my family is pretty keen on, so it kind of worked out well. But it really is a societal reason why I even let that happen. And I feel there’s no real difference, ethically, between what I am now or what my boyfriend is, which is no fish, because how many chickens’ lives are you ruining, right? It’s just some stupid fish, I think chicken is more sentient than the fish. And even then I don’t know how much that matters.

Not everyone, however, saw vegetarianism as “black and white.” Aimee ate land animals twice a year during family functions such as Christmas while she was pescetarian. Islah could see herself doing something similar, and perceived eating meat in those types of situations as upsetting—but still as an imagined part of the experience of being vegetarian:

Hard would be eating out, or eating food when I’m invited to some place, *especially* in [North Africa]. Because it’s rude to refuse food in [North Africa] when you’re invited—you can’t say “no, I’m sorry; I can’t eat your food.” So the hardest thing would have to be to make some compromises. I’m afraid that at some point back in [North Africa], I might have to accept eating meat, just not to offend people. And that’s not the best thing about being vegetarian.

Discussion

Several studies on vegetarians revealed that they did not stick to their desired eating patterns 100% of the time. For example, vegan youths sometimes purchased non-vegan products but continued to identify as vegan [62]. Vegetarians in another study sometimes deviated from their usual eating practices in order to manage social interactions with non-vegetarians [118]. About one quarter of self-identified vegetarians in another study said that they would eat meat on occasion, usually with reluctance, but sometimes readily [49]. This suggests that vegetarianism is perhaps not as “black and white” as some of my participants perceive it to be.

My finding also suggests that some people may decide that because they feel that they cannot go vegetarian all the way, they may avoid trying at all. Others may consider doing what they can to reduce

their consumption of animal products, such as trying semi-vegetarianism; for some, this may be a stepping stone to vegetarianism, or they may have no intention of going any further. My finding also suggests that seeing vegetarianism with a lens of perfectionism may be a barrier to attempting it.

Reactions from Others

About one third of my participants stated that they had a hard time dealing with other people's reactions when they limited their intake of animal products. When she was pescetarian, Aimee had experienced uncomfortable confrontations that she mentioned when I asked what vegetarianism meant to her: "Sometimes vegetarians feel like they have to defend themselves, defend their diet... I guess that sometimes it's something that I feel like I have to defend." When I asked her what defending herself was like, she responded:

Intimidating, I think. Because I'm not an argumentative person—at all. I'm a very passive person, and I don't find it easy to get my point across. I don't find debating easy, and so I found conversations about. Conversations in which I had to defend why I was a vegetarian, I found them stressful.

Aimee and I had conversed for hours about why she used to be pescetarian and why she was considering it again for the future. So while talking about her vegetarianism was not problematic for her, defending it under scrutiny was. Paige also experienced negative reactions from others when it became apparent that she did not eat red meat: "I feel like it's more people that get angry at me because I don't eat [red meat] and they feel like I'm judging them because they eating [red meat]—*I don't mind that you're eating! I don't mind!*" When she expanded on the discomfort she felt being judged, Paige told me that she felt as though other people made assumptions about her because she avoided eating red meat. Often, people thought she was an environmentalist or a hippie, or that she was judging them for eating meat, which was not the case. In fact, none of my participants reported judging people for eating meat. Jeremy had also experienced confrontation and talked about how it could make transitioning difficult:

You pay a price in terms of the self-righteous thing, people think you're self-righteous. Yeah. Some blow-back is more... Some of the more "you're self-righteous" blow-back is worse than others. Some of it's like they just distance themselves a little bit, some of it's more confrontational... It's interesting because I think it's indicative of the fact that they do think there's something wrong. Because they're so—they're very eager to defend their position of eating meat... I mean, I think that if really their conscience was totally cool with eating factory farmed meat, I don't think they'd be so... I almost want to say *offended*.

Jeremy felt that other people sometimes felt offended by his eating habits and judged him to be self-righteous. Of interest, he used strategies to minimize coming across that way. One involved being honest about his eating habits and admitting to not being “perfect.” Another involved appreciating that he might eat the same way as other people if he were in their shoes.

Discussion

A 2014 study found that the merely reading a written description of a vegetarian caused people who ate meat to deny animals’ intelligence and capacity to feel pain; use pro-meat justifications; to perceive meat eating as not a choice; and to underreport meat consumption [122]. In order to reduce the cognitive dissonance that they felt in eating animals but also wanting to treat them well, they used strategies such as derogating and scrutinizing vegetarians for inconsistent behaviours [122]. These reactions were often not intended to put vegetarians down, but rather to reduce personal distress and maintain the meat-eating status quo [122]. Furthermore, a 2003 study of vegans youths found that they were often questioned and taunted about their lifestyle by other adolescents [59]. My findings suggest that even semi-vegetarians can evoke these types of confrontational strategies in some people, and that those on their way to becoming vegetarian and dealing with these types of reactions and may not find it easy.

Transitioning Abruptly

Two of my participants said that they saw vegetarianism as a choice that would last for the rest of their lives. Odell had managed to be vegetarian for a maximum of two weeks at a time: “When I say I want to be vegetarian it should be long. I should control myself, but then I can’t. Just two weeks, and then I’m defeated... I envision that it will go forever, right?” She had tried to become vegetarian from one day to the next, and felt disappointed and embarrassed about going back to eating meat after only two weeks. Odell expected herself to be capable of cutting out meat with no adaptation period, despite enjoying it very much. Islah also saw vegetarianism as lasting a lifetime, but had been slowly cutting meat out of her diet over a long time period. This long-term vision did not seem to negatively affect her: “It’s a choice, I have many reasons. But right now I’m pushed to the vegetarian side. And I know that if I decide to be so, I’m gonna stick to it forever. Yeah, forever.” I got the impression that a number of my participants who had tried vegetarianism in the past had also done so abruptly, and sticking with it had been too difficult.

Jeremy had been contemplating the transition to vegetarianism for about six years, and slowly changing his behaviour. When I asked him about his perception of the transition to a vegetarian diet, he responded:

I think it's difficult. I think most people don't do it in the way I did it; the way I did it was fairly easy, it was just like an unraveling of my thought process... It was just me just discovering what my values are and realising that it's not that hard to implement them. Over six years or whatever, you know? I think if that were how people did it, I think it wouldn't be that bad. But generally it's, I dunno, people see a video or something or, they make a decision that "I'm gonna, from now on I'm gonna be vegetarian." And I think that's hard.

Discussion

A study comparing current and former vegetarians found that current vegetarians were more likely to have transitioned their diet slowly, whereas former vegetarians were more likely to have transitioned abruptly [51]. The study also found that there were no gender differences in this aspect of the transition, with men no more likely than women to transition their diets abruptly [51]. In another study, the majority of vegetarians had also transitioned gradually, although some did so abruptly [61]. Those who had done so abruptly had usually done so as children or teens, becoming averse to eating meat after learning of its animal origins [61]. For vegetarians in one study, a progressive dietary adoption allowed them to form new behaviours, develop strategies, and modify their choices "without overwhelming their coping mechanisms" [61]. It was found that an abrupt transition might be difficult to maintain because dietary practices are embedded in social and cultural contexts, and mental and emotional dimensions, that develop over long periods of time [51, 123].

Being Ab"normal"

As of 2002, upwards of 95% of Canadians ate meat, making the remainder who did not a minority, and vegetarianism an "abnormal" dietary choice [7]; a form of "positive deviance" that surpasses normative expectations [57]. When I asked my participants their thoughts about non-vegetarians, the vast majority referred to them as "normal." As mentioned by Odell, avoiding meat makes vegetarians "different" from most others. A large minority of my participants expressed that vegetarianism was abnormal in the circles they frequented, and expressed some discomfort with deviating from normalcy. In the following passage from Paige, she discussed being a "half-vegetarian" who avoids red meat:

Since most people are not vegetarian or half-way or anything, and they going to eat [red meat], it just the normal. And since you're out of the normal they just say, "What are you out of?" They asking and they feel like you're not normal, they questioning it... And I remember hearing quite a lot, it's "I would *miss* the taste of red meat." *I don't miss it.* I don't. I'm eating just to remember what it tastes like... When you're used to it, it's just normal... nothing is really hard at that point, it just more the judgement of people around.

This suggests that Paige felt that being judged as abnormal, or being questioned about her choice to avoid red meat in a judgemental way, made her feel uncomfortable. Jeremy's experience was different, but his feelings about being normal were similar. He described his feelings about an earlier time in his life when he "wasn't even a social meat-eater" because of his frugality: "I didn't like it. So I came back to where I am now... [for] the reasons that I said earlier about, wanting to be normal and those kinds of things." I then asked Jeremy if this difficulty stemmed from feeling abnormal in his interactions with other people, or from the internal struggle of not wanting to be too hard on himself. To this, he responded:

Yeah it's hard to separate those two—because the norms that I'm comparing myself to are decided by other people... What normal people do is decided by what people do. Right? So I have this, I have this internal thing where I want to be a normal person, but what that entails is decided on by what most people do or most people think. So in that sense they're inter-related. But I'd say it's probably mostly an internal—I dunno that's hard, that's hard. I couldn't say that with confidence.

This suggests that this internal struggle about being a "normal person" would not exist if the majority of people, or at least more people, abstained from eating meat. All of my participants for whom feeling abnormal was a barrier insinuated or commented that "normal" is defined by the choices and ideas of the majority of people in your surroundings. As such, the normalcy of vegetarianism was seen as relative, and in the circles that these particular participants found themselves in—such as small towns or the finance sector—they felt it acutely.

The vast majority of my participants—who did not express feeling abnormal—commented on vegetarianism as being prevalent in their social circles (e.g., a vegetarian partner or friends), home environments (e.g., a vegetarian sibling), or school or work environments (e.g., a vegetarian supervisor or classmates). Many specifically remembered the presence of vegetarians in their lives during the times when they felt most motivated and most able to make the transition.

Discussion

A 2011 study of new vegetarians by Boyle found that participants felt both liberated and marginalized by their vegetarian lifestyle [66]. It has also been found that marginalizing vegan values is one way in which the status quo of marginalizing non-human animals is maintained [71, 124]. My findings suggest that some people have a harder time than others dealing with the feelings of marginalization that may come from vegetarianism, and that social circles in which vegetarianism is uncommon or looked down upon, feelings of “abnormality” may be heightened, possibly acting as a barrier to vegetarianism. Yet they also suggest that the presence of vegetarians in the lives of prospective vegetarians may act as a facilitator to becoming vegetarian, possibly in part because vegetarianism is, in relative terms, normalized in these contexts. Also related to normalcy, a 2009 study found that vegans in an online forum used language that framed veganism as normal and ordinary, as strategies to protect the vegan ideology and resist the notion that it is complicated or difficult [125].

Becoming vegetarian often involves more than a shift in identity, but also requires managing social norms and interactions with others [118]. My finding suggests that this may involve dealing with feeling, and/or being perceived as, “abnormal” in certain interactions.

Organic and Humane Labelling

Two of my participants were misled by organic and humane labeling. Both supported animal welfare improvements, and their misinformed beliefs about these labels somewhat reduced their desire to choose vegetarian alternatives. Organic and humane labels were assumed to represent significant improvements in animal welfare. The most commonly misunderstood label amongst those who mentioned it was the organic label, although “free range,” “grass fed,” and “naturally fed” were also misunderstood. Aimee explained her thinking about organic beef: “If organic beef is raised without antibiotics and hormones and all of that stuff, that makes me assume that the cows have to be able to be healthy without being given antibiotics, which means that they have to be grazing on grassland rather than eating a processed corn diet.” Later in our conversation, she explained her thinking after hearing about the existence of organic certification:

I think I have realised that you don't *have* to be a vegetarian to eat morally... I just think that there have to be certain very strict standards... Obviously, I knew back then that eating a chicken that lived in this much space [*hand gesture*] was not eating morally, and that's why I wouldn't eat chicken. But I was too young at that point to know anything about organic food. Too young to know about cows that are raised on grass farms and are grass fed and live outdoors and are happy.

This suggests that Aimee may not be aware that organic standards for animal products have little to do with the way that animals are treated, and mainly require organic certification of the food and additives they are fed. She later admitted to being uncertain about organic standards concerning farmed animals, and felt as though she should know more since she studied nutrition. Ellen also believed that organic certification denotes humane treatment of animals, and also expressed some views that conveyed confusion about the meaning of certain labels:

Another thing they mention in the Food Inc. is that these chickens that are sold in the store are so much larger than what they actually should be. So that's one of the other things that I definitely would consider, is attempting anyways, to buy chickens that are naturally fed, or that are free range.

This suggests that Ellen may not be aware that “free range” and “naturally fed” are unregulated marketing terms in Canada. British Columbia is an exception, but even there, “free range” involves no restrictions on breeding practices or the feeding of growth-promoting antibiotics to chickens [22, 39]. Despite their interest in organic meat, none of my participants purchased it, and all of those interested in doing so reported not knowing where to buy it or being inhibited by its cost.

Discussion

My findings suggest that prospective vegetarians may be interested to purchase organic and/or humane-labelled animal products, but they may not know exactly what these labels mean. While organic standards make minimal references to the treatment of animals, humane labels are not regulated at all (see *Vegetarianism and Animal Welfare*, page 27) [22, 33]. One qualitative study on vegetarian, former vegetarian, and non-vegetarian women found that the availability of “free range” “antibiotic free” and/or organic poultry alleviated their concerns about animal treatment, environmental degradation, and hormones and antibiotics in meat and eggs [58]. It did not comment on how this affected participants’ purchases, purchasing intentions, or vegetarianism. Furthermore, one 2015 study found that conscientious omnivores—people who only purchase meat that satisfies certain ethical standards—were significantly more likely to violate their diets than vegetarians, did not feel guilt purchasing or eating meat that did not meet these standards, and did not perceive their diet as necessary to follow [126]. My findings suggest that the existence and encouragement of humane and organic purchasing may entice prospective vegetarians who can afford it, but perhaps for the wrong reasons. Misunderstanding of these labels may be prevalent amongst prospective vegetarians, and humane and organic labels may not signify the things that people typically associate with them. This finding is unique in that most quantitative studies did not ask participants about organic or humane-labeled animal products, perhaps because these products have only recently increased in popularity, or because most past research studied vegetarians (who are not typically in the market for meat).

Future research into the effects of industry-perpetuated advertising about the animal welfare benefits of their products is suggested. Furthermore, future research on the barriers to vegetarianism may benefit from including statements about organic and humane meats and their attractiveness in comparison to vegetarian options, in order to determine how prevalent this marketing is in discouraging vegetarianism.

Identity

My inclusion criteria for this study required that participants identify as non-vegetarian. Perhaps this explains why identity did not come up to the same degree that it did in past studies on vegetarians.

Jeremy had some interesting reflections about personally identifying as a vegetarian:

I didn't drink alcohol until I was 22, and it just kind of really high standards, and I'm just aware that that has a negative impact on my quality of life... But there's an element of unhealthiness in the having such high standards for myself. Of *never* having alcohol. There's just a certain—I'm the guy who doesn't drink, you know? That's not who I am. I don't want to be *identified* as that, that's not who I am, that's an extra. It's unhealthy—maybe unhealthy's not the right word—it's not ideal in the same way that "I'm a surgeon," or. You *need* to have an identity beyond those... external things that you may identify yourself with, like I'm a surgeon, or I have a 4.0 [GPA], or I used to be a classical ballet dancer, or I'm a vegetarian, or I've never drank alcohol and I'm 22 years old—it's, for whatever reason it's important to have an identity beyond those things and, to some extent to do that, you have to not do those things... I hadn't drank alcohol until I was 22 and, yeah, went through a really bad breakup and. So there's this girl I imagined spending my whole life with, and so that was an identity, that was part of my identity, right? And then that thing was gone, and then it became clear, here I am. I should have a *real* identity that's not dependent on other people or maybe other things. So alcohol was one of those things that I identified myself as, being [a] non-alcohol drinker. Which is one of those things that I don't want—that isn't a true identity in the sense that it's not really who I am, you know. So in order to break from that—just like my girlfriend had to break up with me in order for me to develop that, I had to have a beer. And then, I had the beer and, yeah it was just a huge sense of relief. I'm still here, still myself even though I don't have this huge thing that I've been identifying myself with for ten years. Even though it's not there anymore I'm still here and everything's okay. So if I just eat, if I become a militant [vegetarian], there's a risk of that forming as a false identity kind of. Like, "I'm a vegetarian, that's why my life has value," which is not something—it's something to be avoided.

This suggests that Jeremy does not want to adopt "vegetarian" as part of his identity; and does not want to completely abstain from meat because it allows him, to a certain extent, to keep his mental health in check. He had a tendency to have very high, strict standards for himself in terms of what he felt he "should" and "should not" do. Perhaps this is part of what drew him to take courses in moral philosophy, and those courses may have reinforced his thinking. Adhering to such standards had a negative impact on his quality of life in the past, and he feared that becoming a strict vegetarian or

vegan would feed his personal tendencies to overdo restriction. Based on past experiences, Jeremy wanted his diet to be a little bit more flexible than what he saw as the “ideal”—a vegan diet, and he wanted his identity to be separate from his food choices.

In contrast, Lynn—who also saw veganism as ideal—felt that taking on a vegan identity might actually have been helpful for her transition: “It would be easier to just flat out say no and then point to ‘I’m vegan, and this is my reason’. The reason sort of stands on its own.” Much of the internal turmoil she experienced came from feeling that she was not sticking to her principles by eating eggs, dairy, and fish. In her eyes, she was failing to take a concrete stand on the issue of animal rights. Here, she talks about identity differently:

How many times have I mentioned I’m not very principled, and I feel like it’s this awkward place. If it was absolutely no cruelty or absolutely whatever reason, it would be almost easier, and I would have an answer for people, but because I don’t that’s why, my family, like “okay, sure I’ll have that fish.” I feel vaguely guilty. *Guilty!* But not enough to. I don’t know not enough to what. Not enough to stop doing it, I guess... Maybe I have a weird idea about principles, or maybe a more exalted view of principles, but the reason why that girl who said she was a “polite vegetarian” *bothered* me so much is that you don’t have the right to call yourself vegetarian if you’re not. So I’m doing kind of what she did—less, because I will not eat meat no matter what—like, meat meat—and I still feel like I’m being her in this way, this unprincipled person who is laying claim to the title of someone having principles. It’s somewhere rooted in there, this guilt.

Also related to this, Lynn said: “as soon as you have that label, or adopt that label, you’re allowed to make excuses, I guess.” Here, she was referring to was the “vegan” label. Lynn used to identify as vegetarian before she started eating fish again.

Discussion

One study comparing current and former animal product limiters (i.e., vegetarians and semi-vegetarians) found that current animal product limiters were more likely to feel that their eating pattern was part of their identity [51]. Adopting a vegetarian diet generally required a shift in identity (although not everyone will label themselves “vegetarian,” sometimes depending on how socially acceptable that label is in their social circle) [56, 118]. Often, vegetarians maintain their identity even when they eat foods outside of their definition of vegetarianism; they were less likely to feel that this identity was threatened when “lapses” occurred in the presence of people who did not know they were vegetarian [118]. A third study on vegan youths also found that becoming vegan motivated a shift in identity, but

that this identity was not adequate to maintain a vegan lifestyle—social support from friends and family, as well as skills and reinforced motivation to maintain the lifestyle, were crucial [62]. Finally, in contrast with other studies, adolescent vegans who did not feel that veganism was an integral part of their identity felt most secure in their decision and most likely to stick with the lifestyle [59]. Regardless, announcing that one is vegetarian automatically establishes precedents, and binds a person to certain standards of acceptable “vegetarian behaviour” [118].

My findings suggest that some prospective vegetarians prefer to avoid a vegetarian or vegan identity, perhaps to minimize pressure on themselves, or because they see it as reserved for those fully committed to and practising the lifestyle. This finding made me wonder how perfectionism intersects with vegetarianism.

CHAPTER VI. SUMMARIES & CONCLUDING COMMENTS

My Participants

My participants were generally highly educated, and, as in past studies on vegetarians, were mostly women. They varied in age from about 19 to 29, and were more ethnically diverse than most past studies on vegetarians. About half of my participants had been contemplating this lifestyle change for about 5 or more years, since they were children. The remainder had started to consider vegetarianism more recently, for about a year.

Some, but not all, past research suggests that there may be more barriers to becoming vegetarian for men than there are for women. Future research on the reasons for and barriers to vegetarianism in men and boys could be addressed in future research.

Reasons for Becoming Vegetarian

All of my participants' motivations for becoming vegetarian were secular, and the majority offered polythematic accounts for wanting to become vegetarian. In general, those who had been considering vegetarianism for a long time had a wider range of motivations for considering the transition. The most common reason for considering vegetarianism in my participants was related to the welfare and/or rights of non-human animals. Many of those primarily motivated by animal rights were considering adopting vegan diets, and many of those primarily motivated by other reasons—animal welfare, environment, and/or health—were considering semi-vegetarian or lacto-ovo-vegetarian diets. Yet this was not definitive: Some participants with the latter motivations were considering veganism in the future, and some motivated by animal rights were considering lacto-ovo-vegetarianism.

Environmental motivations were primary motivations for a minority of my participants, and were important ancillary motivations for just about everyone else. Political motivations were also important ancillary motivations for the majority of my participants, and my findings explored the details of my participants' political motivations, something I did not find in previous literature. One of my participants was an exception to the aforementioned motivations: She was starting to dislike the taste of meat for reasons unknown to her, and this was her only reason for considering vegetarianism.

My findings revealed that my young prospective vegetarian participants had much in common with vegetarians of the same age in terms of their generally polythematic and altruistic motivations to become vegetarian. They tended to be highly socially conscious, and held a general desire for the betterment of society and themselves. For many of my participants, becoming vegetarian was only one means to this ends.

Barriers to Becoming Vegetarian

My findings suggest that numerous barriers to becoming vegetarian are highly interconnected and perhaps less clear-cut than they seem. The two most commonly-cited barriers to becoming vegetarian amongst my participants involved either physically preparing vegetarian meals or psychologically refusing meat away from the home at restaurants or as a guest. Many felt that they lacked the skills and experience necessary to prepare vegetarian meals that are varied, delicious, and quick and easy. They often felt that building up a repertoire of decent vegetarian recipes takes creativity and time, the latter of which they were not necessarily eager to dedicate. Limited vegetarian options at restaurants was problematic for many of my participants, and increasingly so for those on a tight budget; with dietary restrictions (e.g., due to a medical condition or allergy); or with a desire to choose healthy options. Being a vegetarian guest felt considerably difficult for many of my participants, and some chose to eat meat to appease others or to ease social tension. The decision to eat meat in these circumstances affected my participants differently based on their experiences and opinions, leaving them with feelings that ranged from guilt about eating meat to pride for being polite. These barriers were cited in past studies, and having trouble cooking vegetarian meals may even be linked to limited nutrition knowledge about how to balance them without animal products.

Many of my participants dealt with being served meat using passive communication techniques such as avoiding telling others about their preference for vegetarian food. Sometimes they felt uncomfortable asking someone to take steps to accommodate them, other times they believed that others would react negatively to such an admission or request. Regardless, this often made it difficult for them to get social support from friends and family. Spending lots of time eating with non-vegetarians acted as a barrier to vegetarianism for the majority of my participants, as they often felt hesitant to assert themselves and many felt significant temptation at the prospect of eating meat. Those of my participants who really enjoyed meat's hedonic properties had quite a hard time resisting it in these situations and in general. Actively avoiding meat when it was readily available to them was significantly difficult for many of my participants. My findings related to communication are unique in that they were not apparent in past

studies. Perhaps future could address the ways in which communication skills and styles interact with the transition to vegetarianism.

Limited nutrition knowledge was not only an immediate barrier to becoming vegetarian, but my findings suggest that it may lead prospective vegetarians to develop future health problems if left unaddressed. While some of my participants were aware that they needed more information about how to eat a healthful and balanced vegetarian diet, some were not conscious of this. Protein was a commonly misunderstood nutrient amongst my participants, with some oblivious to the fact that animal protein must be replaced; others skeptical that vegetarian diets contain enough protein, and others still believing it necessary to protein-combine. Furthermore, not everyone learning nutrition at the post-secondary level was up-to-date on vegetarian nutrition. A number of my participants did not believe that vegetarian diets could be nutritionally adequate for children, teens, and/or athletes. A number also expressed that they were uninformed about how to obtain sufficient iron and calcium on a vegetarian diet, and many experienced iron deficiency anemia when trying out vegetarianism. None of my participants, however, expressed concerns about vitamin B₁₂. This suggests that they may not have been aware that vitamin B₁₂ is important for vegetarians to be conscious of. Related to this, some of my participants were averse to taking supplements of any kind. Past studies have shown that developing health problems related to nutrient intake are a common reason that people discontinue with the lifestyle; my findings suggest that this may be a problem in the transition even earlier than past research suggests.

Some of my participants also expressed notable confusion about organic and humane labeling. In some cases, they wanted to learn more. In others, knowledge that these labels existed led them to feel that these products offered suitable alternatives to vegetarianism in order to reduce animal suffering and environmental degradation. This finding was unique in that it had not been explored in past research. Future research addressing this topic may be beneficial.

Not all of my participants had social networks in which vegetarianism was common or favourably looked upon; some lived or worked in environments where vegetarianism was seen as abnormal. Being different from other people—and handling the feelings and/or stigma that may come along with that difference—was easier for some of my participants to deal with than it was for others. Furthermore, dealing with negative reactions to their vegetarian dietary choices, including being challenged to defend

their choice, being questioned in a hostile manner, or being called self-righteous, was not enjoyable for many of my participants.

Taking on a vegetarian identity had different connotations to each of my participants who mentioned it. For one of my participants, it represented a way to stand firm on her principles, and avoid eating animal products without the need for further explanation. For another, this identity had connotations of perfectionism or restriction, and he preferred to avoid taking it on to optimize his mental health and quality of life; it was important to him to maintain an identity separate from his dietary choices.

Seeing the transition to vegetarian as a strict, all-or-nothing, “black or white” decision with no room for mistakes or personalized choices was also a barrier to becoming vegetarian. Some of my participants saw vegetarianism as unattainable because they felt it would require perfection. Sometimes they felt as though vegetarianism was not feasible for them because they did see themselves as capable of going “all the way.” This finding is unique and could be explored in future research. On a different but related note, attempting to transition to vegetarianism without an adaptation period caused problems for a number of my participants. Quitting certain animal products from one day to the next was too difficult or overwhelming for many of them, and their failure to do so often led them to feel defeated and less motivated to continue.

My findings suggest that the barriers to becoming vegetarian are complex and inter-related. Considering my findings in light of past studies suggests the possibility that the barriers faced by vegetarians to maintain this lifestyle may actually begin in the consideration process. If these difficulties and challenges are left unaddressed, they may continue throughout the early stages of the transition, sometimes lasting for years before people eventually discontinue their vegetarian lifestyle.

My findings also suggest that the root of the majority of barriers to becoming vegetarian is the fact that normative societal eating patterns are dominated by animal products. In fact, this was pointed out by a number of my participants, including Islah: “I’m sure if the world initially was vegetarian, it wouldn’t be so hard.” My participants were acutely aware that avoiding animal products is the exception, and not the norm, and many wished that normative eating patterns were different and that other people also wanted to change. Yet for as long as the majority of people are eating meat, it is likely that significant barriers to vegetarianism will exist. At this point in time, becoming vegetarian thus requires the attainment of knowledge, skills, and abilities *different* from those beneficial to the majority group of non-vegetarians. It not only involves changing habitual and familiar behaviour patterns, but also—and

particularly in some social circles—actively resisting the status quo and becoming a member of a minority group that is not always valued, accommodated, or understood. Future research examining how to overcome these barriers is suggested.

APPENDICES

Appendix A: Sample Interview Guide

Interview Guide

What does a vegetarian eat? (not a trick question; I'm interested in your personal take/definition)

Background: What are your living arrangements like?

Who do you live with? Where? House/apartment? Spend parts of the year/week elsewhere?

Eating in: Happy with kitchen? Proximity to grocery stores? Who grocery shops? Where? What they buy? Who packs your lunches and cooks your meals? What % of them? What do they make? What's eating in (experience) like? Reasons for eating in?

Eating out: How often do you eat out? Where like to go/do you go? Most frequent? With whom? Buy meals on campus? How often? Where? What? What's eating out (experience) like? Reasons for eating out?

Current diet: How often eating out vs eating in? What reasons? How would you describe current diet? Last ate meat/fish/poultry? How often eating them?

*Does your **nationality/ethnicity/cultural background** play a role in your **eating habits**? How so?*

What **factors** play a role in your **eating habits**? (Family? Partner? Friends? Work? Finances?...)

What **type** of **vegetarian** diet are you **considering** adopting?

Can you tell me what **vegetarianism** means to you?

How would (do) you feel if you were sitting at a table where everyone around you was eating meat?

Are you **studying** something that you see as being somehow **related** to your interest in vegetarianism?

What are your **perceptions of vegetarians**? (What comes to mind when someone tells you that he/she is vegetarian? An omnivore? Do they differ? In what ways?)

Are you **considering adopting** a vegetarian diet, whether that be **now or in the future**?

Can you tell me more about that (your considerations)? How far in the future?

When did you first start thinking about vegetarianism as something you might consider for yourself?

What (thought processes) lead you from that place to where you are now (in considering vegetarianism)? Have things changed since then? In what ways?

What is your **perception of the transition** to a vegetarian diet?

*What do you see as being the **easy and difficult parts of transitioning** to a vegetarian diet?*

What are the reasons that you perceive it this way?

*What do you see as being the **easy and difficult parts of being vegetarian** (vs omnivore)?*

What are the reasons that you perceive it this way?

When considering a vegetarian or omnivorous diet, what pushes you in one direction or another?
How strong is the push from either side?

What are your **personal reason(s) for considering becoming vegetarian?** (Why are you considering adopting a vegetarian diet?)
Are there other reasons that you can think of? Are some of these reasons more important to you than others, or do they all play an equal role in your consideration? What makes some reasons more or less important than others?

What are your **personal reason(s) for your current (omnivorous) diet?** In other words, what plays a role in the way you eat today?
Are there other reasons that you can think of? Do you feel that all of these reasons play an equal role in your current diet, or are some reasons more important than others? What makes some reasons more or less important than others?

Is adopting a vegetarian diet something that you have **ever attempted?**
What was the experience like? Were there parts of that experience that really stick out in your mind as being important? How did it go when you transitioned back to eating meat?

Is adopting a vegetarian diet something that you **can see yourself attempting** (again) in the future?
When do you see yourself making this attempt? What is it about that particular time that affects your decision?
If no, what are the reasons that don't you see yourself making that attempt? How would it happen? Are there things you would need to happen beforehand?

Demographics

Age:

Gender:

Program & year:

Nationality:

Ethnicity:

Would you be okay with being contacted if I wanted to clarify anything?
Do you have any questions for me?

Appendix B: Ethics Approval



Research Ethics Board Office
James Administration Bldg.
845 Sherbrooke Street West, Rm 429
Montreal, QC H3A 0G4

Tel: (514) 398-6831
Fax: (514) 398-4644
Website: www.mcgill.ca/research/researchers/compliance/human/

Research Ethics Board I Certificate of Ethical Acceptability of Research Involving Humans

REB File #: 340-0114

Project Title: Exploring Barriers to Vegetarianism amongst Post-Secondary Students in Montreal

Principal Investigator: Tara Gallimore

Department: Sociology

Status: Master's Student

Supervisor: Prof. E. Weiner

Approval Period: Feb. 07, 2014, 2014 – June 30, 2014

The REB-I reviewed and approved this project by delegated review in accordance with the requirements of the McGill University Policy on the Ethical Conduct of Research Involving Human Participants and the Tri-Council Policy Statement: Ethical Conduct For Research Involving Humans.

Deanna Collin
Ethics Review Administrator, REB I & II

* All research involving human participants requires review on an annual basis. A Request for Renewal form should be submitted 2-3 weeks before the above expiry date.

* When a project has been completed or terminated a Study Closure form must be submitted.

* Should any modification or other unanticipated development occur before the next required review, the REB must be informed and any modification can't be initiated until approval is received.

Appendix C: Unofficial Research Consent Form

RESEARCH CONSENT FORM (To be on McGill letterhead)

Title of Research: *Experience Surrounding Considering Switching to a Vegetarian Diet*

Researcher: Tara Gallimore, Human Nutrition Master's Student, McGill University

Contact Information: Tel: (438) 886-8181 E-mail: tara.gallimore@mail.mcgill.ca

Faculty Supervisor: Elaine Weiner, Associate Professor

Contact Information: McGill University, Department of Sociology, 855 Sherbrooke Street West, 712 Leacock Building, Montreal QC H3A 2T7 Tele: (514) 398-6843 E-mail: elaine.weiner@mcgill.ca

Purpose of the Research:

This study examines students who would like to become vegetarian and their experiences and decisions surrounding the potential adoption of a vegetarian diet. Questions will primarily involve an exploration of these topics. This study is part of a course project and may be used for work that will be potentially published or presented publically.

What is Involved in Participation:

Your participation involves a single interview of approximately one (1) hour in duration. There is little expected discomfort or risk involved in the interview. However, you may choose to decline to answer any question, or to end the interview, at any time. You may also choose to withdraw from this study at any time by contacting us (see *contact information* above). Your participation is entirely voluntary.

With your permission, the interview will be digitally audio-recorded. This recording will be destroyed once it is transcribed.

No financial compensation will be provided for participating in this study.

Confidentiality

The audio file as well as the written transcript will be stored in a password-protected personal computer only accessible by my faculty supervisor and myself. The information you provide will be disclosed in a way that eliminates any chances of associating it with yourself. Only the researchers will have access to any information that identifies you. All interview material will be kept confidential through coding and storing. Your interview may be used in the future for related research studies.

Consent:

I agree to be recorded ☐ YES ☐ NO

I agree to the future use of my data in related research studies ☐ YES ☐ NO

Please sign below if you agree to participate in this study:

Participant's Signature: _____

Participant's Name (printed): _____

Date: _____

Researcher's Signature: _____

You will be provided with a photocopy of this signed consent form.

If you have any questions or concerns regarding your rights or welfare as a participant in this research study, please contact the McGill Ethics Officer, Lynda McNeil, at 514-398-6831 or lynda.mcneil@mcgill.ca.

Appendix D: Resources for Dietitians, Health Care Providers, & Prospective Vegetarians

Awareness of credible nutrition resources specific to vegetarianism may help Dietitians guide current and prospective vegetarian clients and patients. Some examples appropriate for both health care practitioners and clients include:

- The book “Becoming Vegan” by Dietitians Davis and Melina, which is available in both Express (2013) and Comprehensive (2014) editions, the latter of which is well-suited for health care professionals and those seeking in-depth, fully-referenced information [5]
- The book “Vegan for Life” (2011) by Dietitians Norris and Messina [127].
- Position papers on vegetarian diets published in 2015, 2009, and 2003 by the Academy of Nutrition and Dietetics [2, 4, 16]. The 2003 paper was co-authored by Dietitians of Canada and contains extensive lists of vegetarian foods rich in iron, zinc, calcium, vitamin D, and vitamin B₁₂ [2].

Unfortunately, Canada’s Food Guide does not provide vegetarians with guidance about adequate B₁₂ intake from food or supplements. It does not educate on vegetarian sources of DHA and EPA omega-3 fatty acids, which are especially important during pregnancy. It does not indicate vegan sources of calcium besides fortified soy milk. Additionally, eating only two to three daily servings of protein-rich foods, as recommended by Canada’s Food Guide, may be insufficient for vegetarians (e.g., 1 serving of peanut butter provides 7 grams of protein, compared to 19 grams in 1 serving of chicken’s leg). Following Canada’s Food Guide may result in nutritional deficiencies in vegetarians, and health care providers may be better able to help current and prospective vegetarian clients by suggesting they follow evidence-based vegetarian food guides, such as:

- The “Vegetarian Food Guide Pyramid” and “Vegetarian Food Guide Rainbow” were published by Dietitians Messina, Melina, and Mangels in the Canadian Journal of Dietetic Practice and Research in 2003 [3].

Being familiar with vegetarian-friendly restaurants, or where to find them, may also be helpful in guiding clients. Resources include:

- HappyCow.net, a free online resource with listings (and reviews) of vegan, vegetarian, and vegetarian-friendly restaurants in big and small cities worldwide. Happy Cow also offers an app.

- Google Maps has a feature that enables locating vegetarian restaurants in the vicinity of a specific address. For example, a search for “vegan loc: 845 Sherbrooke St W, Montreal, QC” will display vegan restaurants located near the address after the colon (McGill University’s downtown campus).

Socially-conscious clients, including vegetarians, may seek information about initiatives such as:

- Canadian organic certification standards [22] and a substances permitted for use in organic products [31].
- Fairtrade certification, a program working to end forced and child labour in the cocoa, sugar, banana, and coconut industries (amongst others) [128].

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