KADİR HAS UNIVERSITY
SCHOOL OF GRADUATE STUDIES
PROGRAM OF PSYCHOLOGY

HUMANS VS. ANIMALS: A CONTEMPORARY MORAL PERSPECTIVE TOWARD DIETARY AND ETHICAL LIFESTYLES

YUNUS BAYRAMOĞLU

MASTER'S THESIS

ISTANBUL, MAY, 2019

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Submitted to the School of Graduate Studies of Kadir Has University in partial fulfillment of the requirements for the degree of Master's Program of Psychology.

ISTANBUL, MAY, 2019

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APPROVED BY:

Assoc. Prof. Mehmet Harma (Advisor) (Kadir Has University) _____

Asst. Prof. Onurcan Yılmaz (Kadir Has University) _____

Assoc. Prof. S. Adil Sarıbay (Boğaziçi University) _____

I certify that the above signatures belong to the faculty members named above.

_____

Prof. Sinem Akgül Açıkmeşe

Dean of School of Graduate Studies

DATE OF APPROVAL:

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ABSTRACT

Dietary practices are linked with ethics and morality based on different sources of motivations (e.g., moral philosophy). Some of these dietary practices can become a lifestyle with different behavioral patterns, habits and consuming choices in daily life (e.g., veganism). Veganism, by definition, opposes anthropocentrism (human-centrism) and regards animal life as having equal moral value as human life. Thus, using a revised version of the trolley problem, including species-incompatible scenarios (e.g., saving five dogs or one human) in the ethical dilemmas, that omnivores favored human life over animal life despite they were outnumbered (thus showing a speciesist attitude), whereas vegans showed species-egalitarian decision-making pattern and disregarded participants' species in dilemmas while making their ethical judgments. We also developed three new measures: Motivations for Veganism Scale (MfVS), Cow's Milk, Dairy and Eggs Commitment Scale (CMDECS) and Vegan Lifestyle Scale (VLS). MfVS included three motivations of ethical, health and environmental and its structural validity was supported by our data, suggesting there were three core motivations in the way of becoming a vegan. CMDECS and VLS were developed to differentiate between dietary vegans and lifestyle vegans, but there were inadequate number participants so this could not be investigated. We also found that vegans were thinking more analytically and more open-minded. Finally, we found significant dietary and ethical lifestyle differences in terms of Moral Foundations. Results were interpreted in the light of the existing body of knowledge about moral psychology.

Keywords: anthropocentrism, veganism, speciesism, speciesist attitudes, utilitarianism, deontology, moral foundations, motivations for veganism, analytic thinking, open-mindedness

HUMANS VS. ANIMALS: A CONTEMPORARY MORAL PERSPECTIVE TOWARD DIETARY AND ETHICAL LIFESTYLES

ÖZET

Besidüzensel pratikler etik ve ahlak ile farklı motivasyon kaynaklarına dayanarak ilişkilenmiştir (örn., ahlak felsefesi). Bu besidüzensel pratiklerden bazıları gündelik hayatta farklı davranışsal örüntülerle, alışkanlıklarla ve tüketim seçimleriyle bir yaşam tarzı olabilmektedir (örn., veganizm). Veganizm, tanım olarak, insanmerkezciliğe karşıdır ve hayvan hayatını insan hayatıyla eşit ahlaki değerde görür. Bu nedenle, tramvay probleminin değiştirilmiş bir versiyonu kullanıldığında ve etik ikilemlere tür-uyumsuz senaryolar (örneğin, beş köpeği veya bir insanı kurtarmak) da dahil edildiğinde, hepçiller sayıca az olmasına rağmen hayvan hayatına nazaran insan hayatını tercih etmiştir (böylelikle türcü bir tavır göstermişlerdir) fakat veganlar tür-eşitlikçi karar verme modeli göstererek etik karar verirken ikilemlerde katılımcıların türlerini göz ardı etmişlerdir. Bunun yanı sıra, üç yeni ölçek geliştirilmiştir: Veganizm Motivastonları Ölçeği (MfVS), İnek Sütü, Süt Ürünü ve Yumurta Bağlılık Ölçeği (CMDECS) ve Vegan Yaşamtarzı Ölçeği (VLS). MfVS, etik, sağlık ve çevresel olmak üzere üç motivasyon içermektedir ve yapısal geçerliliği verilerimizle desteklenmiştir. Bu da vegan olma yolunda üç çekirdek motivasyonun olduğu anlamına gelmektedir. CMDECS ve VLS besidüzensel veganları ve yaşamtarzı veganları ayrıştırmak üzere geliştirilmiştir, fakat yeterli sayıda katılımcı olmadığı için bu önerme incelenememiştir. Bir başka bulgumuz ise veganların daha analitik düşündükleri ve daha açık fikirli olduklarıdır. Son olarak, Ahlaki Temeller bazında anlamlı besidüzensel ve etik yaşamtarzı farklılıkları bulunmuştur. Sonuçlar, ahlak psikolojisi ile ilgili var olan bilgi birikiminin ışığında yorumlanmıştır.

Anahtar Sözcükler: insanmerkezcilik, veganizm, türcülük, türcü tutumlar, faydacılık, görev etiği, ahlaki temeller, veganizm motivasyonları, analitik düşünce, açık fikirlilik

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1. INTRODUCTION

Dietary practices are linked with ethics and morality based on different sources of motivation (e.g., religion, social justice ideals, moral philosophy). Some of these dietary practices can become a lifestyle with different behavioral patterns, habits and consuming choices in daily life (e.g., omnivorism, veganism). Throughout human history, anthropocentrism has been one of the most dominant ways of thinking, defined as the philosophical viewpoint arguing that human beings are the central or most significant entities in the world. Anthropocentrism regards humans as separate from and superior to nature and holds that human life has intrinsic value while other entities (including animals, plants, mineral resources, and so on) are resources that may justifiably be exploited for the benefit of humankind (Boslaugh, 2016). Also, Jonathan Padwe (2013) describes anthropocentrism as a human-centered, or "anthropocentric," point of view. He states that in philosophy, anthropocentrism can refer to the point of view that humans are the only, or primary, holders of moral standing. Anthropocentric value systems thus see the nature in terms of its value to humans; while such a view might be seen the most clearly in advocacy for the sustainable use of natural resources, even arguments that advocate for the preservation of nature on the grounds that pure nature enhances the human spirit must also be seen as anthropocentric. Different life styles and ethical perspectives such as veganism, is claimed to be in contrary to this perspective of anthropocentrism, which regards animal life as an equal to humans in terms of moral standing and value. This perspective can be linked to differences in the perspectives and involvements of religion (religious affiliation and religiosity), beliefs in morality and ethics. Therefore, in this thesis, the aim is to unveil the similarities and differences between different dietary and ethical lifestyles (e.g., omnivorism, vegetarianism, dietary veganism and lifestyle veganism), on the grounds of religiosity and religious affiliation, moral foundations, ethical decision making and cognitive thinking styles. Since there are significant lifestyle differences, including dietary and consuming practices among people that adopt different dietary and ethical lifestyles, the factors that might lead to these differences or in association with the perspectives, attitudes, intentions and behaviors of omnivores, vegetarians and vegans are expected to

be significantly separated on specifically these aspects of ethics, religiosity and morality. Lifestyle vegans claim that there are differences in terms of ethical perspectives between themselves and the other dietary and ethical lifestyle groups, including omnivores and vegetarians, meaning that they perceive what is right and wrong very differently (especially in the case of the relationship between homo-sapiens and the animal kingdom). Based on this claim, it can be expected for people from different dietary and ethical lifestyle groups to differ in terms of ethical decision making and sense of morality. Additionally, since meat-eating attitudes, intentions and practices alongside with anthropocentrism exist in some of major religions such as Christianity and Islam, one can also expect some significant differences in terms of religiosity and religious affiliation between omnivores, vegetarians and vegans. Although it is very possible for a believer to be a lifestyle vegan, it is expected that this possibility is very unlikely because of the anthropocentric nature of the majority of the dominant religions, therefore the religiosity is also included in this research. In order for us to start investigating these possible differences that are mentioned above, there should be a clear explanation of what the dietary and lifestyle differences between these groups of people are, including first and foremost, veganism.

1.1. VEGANISM

Veganism is being defined today with limited changes across different sources. It can be said that veganism may be perceived by general population mainly as a plant-based diet and as is being followed solely or most likely for health reasons such as controlling cholesterol levels or losing weight. But in fact, veganism has a well-documented philosophy behind it, and it can be defined as a philosophy and way of living which seeks to exclude—as far as is possible and practicable—all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, promotes the development and use of animal-free alternatives for the benefit of humans, animals, and the environment. In dietary terms it denotes the practice of dispensing with all products derived wholly or partly from animals. (The Vegan Society, n.d.). Although a philosophy is involved in the case of veganism, alternate sources involve people who themselves follow a plant-based diet without any philosophical background into the term as well. Based on these sources, veganism is the practice of abstaining from the

use of animal products, particularly in diet, and an associated philosophy that rejects the commodity status of animals (Francione, 2012; Pedersen & Staescu, 2014; Steiner, 2013). A follower of the diet or the philosophy is known as a vegan, a term coined by Donald Watson (Lowbridge, 2017; Watson, 2002).

1.2. VEGANISM IN SOCIAL SCIENCES

Veganism in social sciences almost always appears with the term vegetarianism, as it preserves the roots of the vegan philosophy and ideology. Vegetarianism in particular is defined as the voluntary practice of abstention from meat, which can be adopted for a variety of (potentially overlapping) motivations, such as a concern for personal health, animals, or the environment (Beardsworth & Keil, 1992, 1997; Fox & Ward, 2008; Judge & Wilson, 2018).

There are several research directions in social sciences, regarding the concepts of vegetarianism, veganism, and their correlates. For example, a line of research focuses on the relationship between meat-eating and animal products consuming behavior. These mainly include the attitudes, prejudice and bias toward vegetarians and vegans (Chin et al., 2002; Cole & Morgan, 2011; Judge & Wilson, 2018; MacInnis & Hodson, 2017), meat-eating and masculinity (Rozin et al., 2012; Ruby & Heine, 2011; Thomas, 2016), motivations for vegetarianism (Fox & Ward, 2008; Hoffman et al., 2013; Rosenfeld & Burrow, 2017), vegetarianism/veganism and health (Dinu et al., 2016; Dyett et al., 2013; Heiss et al., 2017; Mendes, 2013; Sneijder & Molder, 2004), comparisons between vegans of health reasons and vegans of ethical reasons (Hoffman et al., 2013; Radnitz et al., 2015), judgments on animals' moral standing (Piazza et al., 2014, 2018; Piazza & Loughnan, 2016), rationalizations of meat consumption (4N's; Piazza et al., 2015), vegansexuality (vegans engaging in sexual relationships and intimate partnership only with other vegans; Potts & Parry, 2010), vegans' attitudes toward animal agriculture (Janssen et al., 2016), differences between conscientious omnivores and vegetarians in the evaluation of meat and animals (Rothgerber, 2015) and childhood responsiveness to animal suffering and its relationship with adult animal rights lifestyle (Pallotta, 2008). Although we are able to see a considerable amount of work on the subject of abstaining from meat and animal products, there are little to no

research, investigating the motivations for becoming vegan and the potential correlates of these motivations. One of the aims of this study was to investigate these associations.

1.3. MOTIVATIONS FOR VEGANISM

Veganism, as the case could be the same in other philosophical stances in contrary to anthropocentrism, can be seen also as an anthropocentric approach itself, or be practiced as one. This could be caused by people which follows a dietary pattern leaving out all the animal products for mainly health reasons (physical and/or mental), enhance their own quality of life and physical attractiveness, by an anthropocentric point of view. But, this is not entirely the case. In the literature, different motivations in cases of both vegetarianism and veganism have been evaluated with different perspectives. For example, a study in the past has already accomplished that in case of vegetarianism. In a qualitative study, Fox and Ward (2008) investigated the motivations of vegetarianism and found that ethical and health related motivations are the most dominant motivations, while concerns about the environment is indisputable in the case of understanding the motivations of vegetarians. After this important finding, Hoffman and her colleagues (2013) investigated the differences between health and ethical vegetarians, based on strength of conviction, nutrition knowledge, dietary restriction, and duration of adherence. As a result of this study, some significant differences between the two groups have been reported. Most recently, Rosenfeld and Burrow (2017) acknowledged the two-dimensional motivational approach toward vegetarianism (e.g., ethical & health) and additionally, proposed their own reasoning. Their perspective was named Unified Model of Vegetarian Identity (UMVI) and included three types of goals: prosocial, personal and moral, as a novel framework for conceiving plant-based dietary motivations.

Two-dimensional approach of ethical and health motivations has already been studied by comparing these two groups, also in the case of veganism. In the study of Radnitz and her colleagues (2015), the differences of lifestyle choices between health and ethical vegans were examined. By the phrase “lifestyle choices”, they investigated nutritional input and dietary practices -which was handled differently in this study- and found that there were significant differences between these groups based on both nutritional input and dietary practices.

In this study, however, we aim to investigate the three motivations of ethical, health and environmental in the case of veganism. By recognizing the ethical and health reasons are already defined and demonstrated (even if there are a small number of studies), we predict that the environmental motivations are also key in understanding the motivations for veganism, based on the rising popularity and recognition of the environmental concerns and anecdotal evidence. In order to be able to differentiate between anthropocentric vegans and species-egalitarian lifestyle vegans, a new quantitative measurement tool is further needed.

1.4. MEAT, MILK, DAIRY AND EGGS COMMITMENT AND VEGAN LIFESTYLE

Another important area of interest in the research of vegetarianism and veganism could be considered as meat consumption. Although meat consumption is assumed to be one of the most important parts of the dietary patterns of ordinary people today, some groups (e.g., vegetarians & vegans) do not consume meat. Who do consume meat however, differ at their level of commitment to this dietary item. In a study of Piazza and his colleagues (2015), people's rationalizations for consuming meat has been investigated. In their study, researchers extended Melanie Joy's (2010) 3N's for consuming meat by adding a fourth common rationalization (niceness; the hedonistic quality of meat-eating) and finalized the 4N's, including *natural*, *normal*, *necessary* and *nice*. *Natural* dimension refers to the belief that eating meat comes natural to humans. *Normal* dimension refers to the normative aspect of meat-eating, specifically the perception that the majority eat meat and it is a normal behavior. *Necessary* dimension refers to the perception that eating meat is healthy and abstaining from meat is unhealthy, therefore eating meat is a necessity for humans. Finally, *nice* dimension refers to the joyful and hedonistic aspect of meat-eating and the perception that meat is delicious. When researchers investigated the correlates of 4N's of meat-eating, specifically, they found that holding the belief of 4N's was positively associated with speciesism and negatively related to pride in animal-product decisions, moral self-regard derived from animal-product decisions, and animal-welfare advocacy and restriction of animal products. Based on this finding, one can speculate that there was a significant association between motivations of eating meat and speciesism. Moreover,

meat-eaters (or omnivores as referred in this study) did not feel any pride and moral self-regard in terms of meat consumption, they were showing less favoritism toward animal welfare as their motivations of meat-consumption rise and they did not restrain for animal products based on these associations. Following these findings, Meat Commitment Scale (MCS) was developed by Piazza and Loughnan (2014) to understand and furthermore show the validity of the 4N's measurement of rationalization.

Because MCS was only able to differentiate between omnivores and the other dietary and ethical groups, we developed a new scale to differentiate dietary vegans and lifestyle vegans. Dietary vegans could be conceptualized as people who do not consume any animal products in dietary manner, but use other animal products or engage any activities that directly or indirectly harm animals in the process. These products could be perfumeries (deodorants, perfumes, make-up items and other products of bodily maintenance/personal care) for which animal subjects are used for experimentation, clothing and furniture material such as fur, leather and so on. Lifestyle vegans on the other hand, do not consume any animal products and furthermore do not engage in any activities or do not use any material for which any animals will be hurt in the process. To capture these differences, we developed the Vegan Lifestyle Scale (see Materials section). By this way, we will be able to investigate if there are any differences between dietary and lifestyle vegans in the case of speciesist attitudes both in this study and in further studies.

Although previous work investigated the potential correlates of vegan lifestyles and group differences between different dietary lifestyles (and basic motivations behind them) on daily life pratices, they have not investigated how these dietary lifestyles could be associated with ethical decision-making. Based on all the argumentations and examples of the difference of perspectives between dietary and ethical groups, it is plausible to predict that their ethical judgment processes (normative ethical approaches; utilitarianism vs. deontology) could be different. Thus, we also aimed to fill this gap and unveil any associations between differences between omnivores, vegetarians and vegans in terms of ethical judgment processes using well-known ethical dilemma questions with subtle revisions (e.g., trolley dilemma).

1.5. MORAL PRINCIPLES IN ETHICAL JUDGMENT PROCESS

For decades, two moral principles have been proposed that play a central role in research on moral judgment. The first principle, utilitarianism perspective in normative ethics is focused on whether the consequences of an action maximize general well-being (Mill, 1861). The second principle, deontology, is often focused on whether the action is in accordance with universal rights and duties (Kant, 1785). This approach specifically, offers a perspective by which an action's outcome is unimportant in ethical judgment process. For example, an innocent person should never be sacrificed even if the sacrifice would lead to the survival of a much greater number of people. One of the leading frameworks of the psychology of moral decision-making is the dual-process approach (see Greene et al., 2001). In this perspective, utilitarian and deontologic judgments can be explained on the basis of the operation of two separate mental processes. Type 1 processes are primitive, automatic, and intuitive, whereas Type 2 processes are more deliberate, closer to the current mental status of homo-sapiens, are controlled and analytic. (see also Aktas et al., 2017 for a more detailed introduction).

In this study, we aimed to investigate if there are any differences in the matter of ethical judgments between different groups of omnivores, vegetarians, dietary and lifestyle vegans. As mentioned above, omnivores, vegetarians and vegans proposedly have different perspectives in terms of ethics of daily life including moral regard to non-human animals, food consumption, treatment of animals and so on. Based on this proposition, we propose that their ethical judgment patterns may differ as a function of their dietary life-styles. More specifically, since vegans have strict red lines toward treatment of animals, which items will be included in the category of food, or non-human animal's moral value compared to humans, they may disregard any typical utilitarian perspectives on a lot of subjects when looking through the glasses of an omnivoristic standpoint. This may differentiate vegans and non-vegans especially in terms of normative ethics, especially if the actors (i.e., human vs. animal) varied in the ethical judgment scenarios. Furthermore, a new approach has been taken in order to further look into if these different groups of dietary and ethical lifestyles see if animals and humans are equal or not in moral value for them. To do this, we revised the typical moral dilemma paradigm changing species of victims.

If we expect some differences in terms of ethical judgment based on their choices of consumption and perception of food, it is only logical to consider that they may hold different moral values in different scenarios. If they have different preferences in terms of moral dilemmas, people with different dietary life styles (i.e., omnivores, vegetarians and vegans) may also be differed from each other on their sense of morality. More specifically, what they hold sacred and what they feel are relevant in terms of morality and cooperation could be observed at basic moral values. Therefore, we examined moral foundations differences among people who identified themselves with different dietary life-styles.

1.6. MORAL FOUNDATIONS THEORY

The study of understanding the mental structures behind moral judgments have been studied intensively for the past 50 years, mostly including harm and justice as the basis of morality (Darley & Shultz, 1990; Haidt, Koller & Dias, 1993; Kohlberg, 1969; Nichols, 2002; Nichols & Folds-Bennett, 2003; Piaget, 1965; Rozin, Lowery, Imada & Haidt, 1999; Shweder, Much, Mahapatra & Park, 1997). The Moral Foundations Theory (MFT), however, changed the course of moral judgment research by criticizing Kohlberg's justice-based morality guided by reasoning (Kohlberg, 1969), and offered a multi-foundational model of morality guided by intuitions (Graham, Haidt & Nosek, 2009; Graham et al., 2013; Haidt & Joseph, 2004; Haidt, 2001, 2007, 2012). According to MFT, previous conceptualizations of moral psychology have an implicit bias toward a western, liberal and individualistic understanding of morality which is in fact adopted by a small minority in the world (see Henrich, Heine & Norenzayan, 2010). The theory regards morality as being based on five separate intuitive foundations each of which is supposed to be an evolutionary adaptation designed to solve different adaptive problems.

The five foundations of MFT are care/harm, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation. The care/harm foundation is defined as the motivation to care for one's offspring and others that are in need and to protect them from coming to harm. The fairness/cheating foundation is the motivation to act in accordance with justice norms within one's group and to detect those who freeride by benefitting from the group without paying any costs. The loyalty/betrayal foundation is

the motivation to protect the interests of one's group against rival groups. The authority/subversion foundation is the motivation to respect those higher than oneself in the social hierarchy and thus to preserve the social order. Finally, the sanctity/degradation foundation is the motivation to be pure both physically and spiritually, to respect the sacred and to suppress carnal desires.

Since cooperation and helping others are considered as a part of being a moral person and for example it may be considered specifically to be in relationship with *care* dimension (caring others in need is directly related to prosociality), we also investigated the link between dietary life-style and prosociality. Thus, it would be expected that non-vegans would report more prosocial attitudes toward humans compared to vegans, whereas vegans tend to show dislike to the current stance of general human ethics, or even misanthropy (as a speculation) based on anecdotal evidence. Additionally, since veganism could be considered as the rejection of anthropocentric philosophy, lifestyle vegans (i.e., people that become vegans mainly because of ethical controversy) would be presumed to show more prosocial attitudes toward animals.

1.7. DIETARY LIFESTYLE AND PROSOCIALITY

Prosociality can be described as acting in the benefit of other human beings. In addition to this, we defined prosociality as actions in the benefit of animals as well as humans. Therefore, we assessed the two constructs of prosociality toward humans and prosociality toward animals in this study. Prosociality toward humans includes helping other people in need, including donating blood, donating money et cetera. Prosociality toward animals includes joining parades against animal cruelty, including sea worlds, zoos, circuses, meat and dairy industries and so on. It also includes helping street animals that are in need, providing food, water and shelter.

Because we expect such differences in terms of ethical judgment processes, sense of morality and the importance of specific moral foundations and prosociality, we would expect that analytic thinking style and open-mindedness could also be associated dietary life-style and moral judgment processes (see Aktas et al., 2017 for the role of analytic thinking style and open-mindedness on moral judgment). Specifically, for a person to divert from society norms about ethics in such a drastic manner, one should elaborate moral and ethical problems more, think more analytically in the case of ethics, be more

open-minded in the case of their sense of ethics and morality and therefore should be open to change (both his ethical and moral views and behavior if necessary).

1.8. ANALYTIC THINKING STYLE & ACTIVELY OPEN-MINDED THINKING

One of the manifestations of analytic thinking could be cognitive reflection in contrast to intuition. For this aim, The Cognitive Reflection Test (CRT) was devised by Frederick (2005) and is supposed to be a measure of cognitive reflection of individuals. The variable CRT aims to measure can also be conceptualized as analytic thinking style (ATS). It is comprised of three mathematical text-based problems, which elicit first an intuitive (wrong) answer and can only be solved when consciously thinking of the true answer. The theory behind this task assumes that there are two distinct cognitive processes involved: a fast intuitive one and a slow and rather reflective one (Epstein, 1994). Some researchers called them System 1 (i.e., spontaneous, instantly, effortlessly) and System 2 processes (i.e., effortful, motivated, reflected; Stanovich & West, 2000). To solve the CRT items, one has to ignore the first intention of the System 1 processes and switch to System 2 processes to think intentionally about the correct answer (see Stieger & Reips, 2016).

In addition to the reflection and impulsivity concepts, Baron (1993) developed a reasoning style called actively open-minded thinking (AOT). This style of thinking includes the tendency to weigh new evidence against a favored belief, be open to new information and ideas, to spend sufficient time on a problem before giving up, and to consider carefully the opinions of others in forming one's own. (Haran et al., 2013).

1.9. THE PRESENT STUDY

This study contributes into the literature by several ways. First, we developed a novel three-dimensional questionnaire that measures including main motivations in the way of becoming a vegan, and these are *ethical, health* and *environmental.* Second, we investigated if there were any significant differences between individuals identifying themselves with different dietary life-styles on multiple variables such as ethical judgment, moral foundations, religiosity, prosociality (with addition of prosociality

toward animals), etc. This second contribution mostly includes explanatory efforts. Third, with a quasi-experimental design, we investigated by using multiple statistical analyses such as mixed-design ANOVA and logistic regressions if different dietary and ethical lifestyle groups differ in terms of speciesist attitudes or preferences. Above all and maybe as the most important contribution, we introduce vegan philosophy and lifestyle into psychology literature. Furthermore, with a new revision of ethical dilemmas for our purposes, people belonging in these different groups will be deciding deontological or utilitarian action in a different manner.

In the original trolley problem as an ethical dilemma, there is a runaway trolley going down the road. If there are no interventions taking place, the trolley will hit and kill five workers that are working on the road. But there is a second option. There is a button and if someone pushes that button, the trolley will change its course and kill one person that is working on the other road. The participant in this dilemma, is asked to choose between pushing and not pushing the button. Pushing the button and changing the course of the trolley would mean a utilitarian choice, aiming to save as many people as possible. Not pushing the button, however, would mean a deontological choice, deciding not to interfere with how things are going and not actively killing the other person on the other road, because killing is universally considered wrong.

In this study however, the original demonstration has been revised. More specifically, instead of presenting two sides that are both humans, we changed it to involve species-to-species comparisons. Thus, participants were asked to choose between one human and five dogs, and one dog and five humans. Again, participants were asked to choose between one human and five sheep, and one sheep and five humans. In addition to all these new additions, the original question remains, by presenting the participants same-species comparisons (e.g., human vs. human, dog vs. dog, sheep vs. sheep). By this way, we aimed to understand if people from different dietary and ethical lifestyles regard human and animal life differently; and if this is the case, what will be the pattern of this moral value and preference.

In this study, we sought answers to several research questions. First, the study aimed to investigate if five groups of dietary and ethical lifestyles would differ in terms of motivations for veganism. Specifically, we expected that dietary and ethical vegans

would score higher on the Motivations for Veganism Scale, compared to vegetarians and omnivores.

Second, we aimed to investigate if five groups of dietary and ethical lifestyles would significantly differ in terms of meat commitment; milk, dairy and eggs commitment and vegan lifestyle. Specifically, it was expected that both dietary and ethical vegans would have less milk, dairy and eggs commitment compared to vegetarians and omnivores. Vegetarians, and both vegan groups (e.g., dietary & lifestyle) will have less meat commitment compared to omnivores.

Third, we investigated if five groups of dietary and ethical lifestyles would significantly differ in terms of moral foundations and prosociality. Specifically, we expected that vegans would be less prosocial toward humans, but more prosocial toward animals mostly because of their felt injustices done to animals by humans and their higher sympathies toward the entirety of the animal kingdom. Furthermore, it was hypothesized that vegans and omnivores would give different weight on the five moral dimensions of MFQ. More specifically, vegans would report higher importance and relevance for harm and fairness dimensions, while omnivores would score higher on loyalty, authority, and purity dimensions. Because veganism stands on the ground that humans unnecessarily and significantly hurt animals and it is unjust, and because vegans are deviating substantially from their society which inherits a meat-eating and animal using culture that involves seeing some specific animals as commodities, the difference on loyalty, authority and purity was expected.

Fourth, we also tested if omnivores would be more intuitive on Cognitive Reflection Test compared to other groups. It was expected of vegans to score more analytically on CRT compared to omnivores. In parallel with this direction, we also tested group differences in Actively Open-Minded Thinking (AOT). Specifically, it was expected that vegans would be higher on AOT, compared to vegetarians and omnivores. This expectation derived from the aforementioned status of vegans which includes a substantial deviation from their society in terms of how they live their lives and how they see animals. To make such gigantic changes in his life toward what he thinks is morally good and right, one must tend to think more analytically in the face of a problem. Additionally, one also should be more open-minded for him to be able to

acquire more information about a subject that is extremely disturbing to think about and elaborate.

Fifth, we tested how dietary lifestyle could be associated with moral judgments using different measures (i.e., Consequentialist Thinking Scale (CTS) and ethical dilemmas). It was hypothesized that vegans would make more deontological judgments in CTS. Since their ethical stance toward life via veganism is very much duty-oriented (e.g., I should not eat meat because it is just wrong), this pattern was the first that comes to mind.

Last, we examined how people with different dietary lifestyles varies in terms of the responses on the ethical dilemmas. For this study, we intentionally changed victims' species to see how vegans, vegetarians, and omnivores respond these different scenarios. Although we could not make utilitarianism or deontological judgment inferences by just looking at the number of rescued actors in responses, these revised dilemmas could enable us to see how vegans, vegetarians, and omnivores give weight the potential alternatives. Specifically, we expected that regardless of the amount of people or animals in the dilemma, omnivores would always favor humans. More specifically, it was hypothesized that omnivores would differ in terms of their answers they give on same-species dilemmas and cross-species ones. However, in the case of vegans, this would not be the case. We hypothesized that lifestyle vegans would not differentiate with their answers based on the species of victims in the dilemmas, because they would see humans and animals as equals and would not favor humans in these dilemmas.

2. METHOD

2.1. PARTICIPANTS

We recruited 612 participants for the study. However, 325 participants did not answer all of the questions and therefore did not finish the questionnaire, by mostly rejecting to answer moral dilemma questions, therefore they were excluded from the data for further analyses. Remaining 287 participants had a mean age of 26.83 (*SD* = 7.83). Out of 287, 242 participants were female (84.3%), 33 participants were male (11.5%) and the rest of the participants preferred not to mention their gender.

Following Piazza et al.'s (2015) classification, we collected data from people defined themselves in five main groups of dietary and ethical lifestyles. These were *omnivores* [Consume animal products, except those excluded for taste preference, medical (e.g., allergy, intolerance), and/or religious reasons], *semi or partial vegetarians* [Consume some, but not all, of the following: red meat (beef, veal, etc.), pork, poultry, fish, and/or seafood. Consume eggs and dairy products], *vegetarians* [Never consume red meat (beef, veal, etc.), pork, poultry, fish, or seafood, but may consume eggs and/or dairy products. Never consume any animal products, including red meat], *strict vegetarians or dietary vegans* [Never consume any animal products, including red meat (beef, veal, etc.), pork, poultry, fish, seafood, eggs, dairy products, or other animal products (e.g., gelatin, casein, etc.)], and *lifestyle vegans* [Never consume any animal products, and avoid some or all non-food animal products (e.g., leather, silk, cosmetics containing animal ingredients, etc.) and/or products tested on animals.] respectively.

Based on self-reports, 88 *omnivores*, 41 *semi or partial vegetarians*, 22 *vegetarians*, 6 *strict vegetarians or dietary vegans*, and 130 *lifestyle vegans* participated to the study. All of omnivores were recruited from psychology departments of two different universities in Istanbul, Turkey, in exchange for course credit. Nearly all of the rest of our participant pool were recruited through social media platforms (Facebook &

Instagram). Participants that were recruited from Instagram were contacted through collaborations with users that had high numbers of vegan followers, and the participants were compensated by receiving gift cards (2 x 50 Turkish Liras) that can be used in vegan shops, or gift boxes that contain vegan food items. Participation via Facebook was entirely voluntary.

Because there were not enough participants in each dietary and ethical lifestyle group for statistical comparisons, we merged some of the groups in order to conduct the analyses more accurately. Specifically, the two groups of *semi or partial vegetarians* and *vegetarians* were merged as *vegetarians*. Additionally, the two groups of *strict vegetarians and dietary vegans* and *lifestyle vegans* were merged as *vegans*. Finally, we had three groups of *omnivores*, *vegetarians,* and *vegans* for further analyses. As total we had 88 *omnivores*, 63 *vegetarians* and 136 *vegans,* which were more equally distributed and more fit to the further statistical analyses.

2.2. MATERIALS AND PROCEDURE

For data collection process, we devised an online link via qualtrics. All items in questionnaires were presented in a randomized order. In the first page, participants were presented a series of demographic questions, including age, gender, education level, religious affiliation, and religiosity (i.e., "how religious are you?"; not at all religious 1 – 7 extremely religious), ethnicity, political orientation and a single item of where does the person stand on the political spectrum (extreme left 1 – 7 extreme right). At the end of the demographics section, participants were asked where they would place themselves in terms of five main groups of dietary and ethical lifestyles (i.e., omnivore, semi or partial vegetarian, vegetarian, strict vegetarian or dietary vegan, lifestyle vegan) (for all materials see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

Then, we asked our participants how many months they have been vegan and for how many months they have been vegetarian before they became a vegan (if they had selected dietary or lifestyle vegan options). Additionally, we asked participants who identified themselves as *semi or partial vegetarian* or *vegetarian* for how many months they have been vegetarian.

2.2.1. Dietary Lifestyle Related Measures

Motivations For Veganism

We developed a scale (Motivations for Veganism Scale; MfVS) to measure main motivations on being vegan (i.e., ethical, health, environmental). The scale was consisted of 12 items; α = .93), the psychometric properties of the scale presented in the Results section.

Three dimensions were comprised of 4 items each, with one reverse item in each dimension. These were *ethical motivations* [e.g., "I have chosen (or thinking to choose) a vegan lifestyle because of ethical reasons.", "I think that consuming or using animal products are wrong because animals are not our commodities."; α = .77], *health motivations* [e.g., "I have chosen (or thinking to choose) a vegan lifestyle because of health reasons.", "Following a plant-based diet and avoiding animal products are better for my health."; α = .86] and *environmental motivations* [e.g., "I have chosen (or thinking to choose) a vegan lifestyle because of environmental reasons.", "Giving up meat and animal products is reducing my carbon footprint on this planet and serve to protect our environment."; α = .84] (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

Meat Commitment

In order to assess participants' commitment to consume meat, Meat Commitment Scale (Piazza & Loughnan, 2014, Piazza et al., 2015; MCS) was used. This measure has 7 Likert type items (not at all agree 1 – 5 totally agree; e.g., "I don't want to eat meals without meat.", "I would never give up eating meat."; α = .92) and has been previously shown to have a strong test-retest reliability and internal consistency (Piazza et al., 2015) (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

Cow's Milk, Dairy And Eggs Commitment

We adapted Cow's Milk, Dairy and Eggs Commitment Scale (CMDECS) from MCS that has been developed by Piazza and Loughnan (2014) and has been used first in

Piazza et al.'s (2015) research to assess participants' commitment to consume animal products except meat with 7 items. This scale was almost identical with MCS, mostly substituting the word meat with the phrase "cow's milk, dairy and eggs" across the questions (not at all agree 1 – 5 totally agree; e.g., "I don't want to eat meals without either cow's milk, dairy, eggs or sauces using these ingredients.", "I would never give up cow's milk, dairy and eggs."; α = .93). Psychometric properties of the scale were presented in the Results section.

Vegan Lifestyle

In order to assess participants' attitudes of committing to a vegan lifestyle, which specifically means refraining from products that contribute to the exploitation and harming of animals, we developed the Vegan Lifestyle Scale (VLS). Aim of this measure to be brought to life was the prospective ability to support the validity analyses of MfVS and CMDECS.

This measure has 4 Likert type items (not at all agree 1 – 5 totally agree; e.g., "I always buy products that are cruelty-free.", "When I need to buy clothing, I do not choose to buy any items that are made from animal skin, fur or any other products causing harm to animals."; α = .82). The scale development will be analyzed in terms of validity in the Results section (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

2.2.2. Individual Differences Measures

Prosociality (Toward Humans & Toward Animals)

In order to assess prosocial attitudes of participants, two different measures of prosociality were used. First, we used a single item first used by Clobert and Saroglou (2013): "If you were to win some money by a lottery, what percentage of it you would keep to yourself and your relatives and what percentage would you give to strangers for help (donation, granting scholarship to students, building a school, etc.)." The prosociality score was derived from the percentage given to strangers for help. Higher percentages indicate higher prosociality (see Bayramoglu, Harma & Yilmaz, 2018).

Second, we used a revised version of the scale developed by Jordan and her colleagues (2011). Original three-item scale had a Cronbach's Alpha score of .60. In our revised version, we transferred the third item (i.e., "Assume that people in your neighborhood are organizing a project of traveling street to street distributing food to hungry animals. How likely is it for you to participate?") to *prosociality toward animals* scale. After the revision, participants responded to a series of randomly ordered items about their likelihood of donating to charity, donating blood, volunteering, vacationing, attending a party, and seeing a movie in the next month [most unlikely to act on it 1 – 7 most likely to act on it; prosociality toward humans items: "Assume that in your school there is somebody whose parents went bankrupt. How likely is it for you to donate to contribute the students' school expenses?", "Assume that there has been an earthquake centered nearby which also affected your own city. How likely is it for you to go to the Red Cross (or any other center) voluntarily and donate blood?"]. Third, we also measured the prosocial intentions toward animals with two items with a new addition of the second question (i.e., "Assume that people in your neighborhood are organizing a project of traveling street to street distributing food to hungry animals. How likely is it for you to participate?", "Assume that a group of people in your own city or district are organizing a demonstration against the animal cruelty taking place in waterparks and circuses. How likely is it for you to participate?"). (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

The first two items formed the dimension of *prosocial intentions toward humans* (α = .65), and the last two items including the recent addition formed the dimension of *prosocial intentions toward animals* (α = .73).

Analytic Thinking Style

To measure analytic thinking style (ATS), Cognitive Reflection Test (CRT) was used. It was first introduced by Frederick (2005) and is supposed to be a measure of cognitive reflection in contrast to intuition. It is comprised of three mathematical text-based problems, which elicit first an intuitive (wrong) answer and can only be solved when consciously thinking of the true answer (i.e., "A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does the ball cost?", "If it takes 5

machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?", "In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?"). Analytic (right) answers were coded as 1, while the intuitive (wrong) answers were coded as 0. Scores then summed up to represent a total score of analytic thinking style, in which higher points indicate higher analytic thinking (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

Actively Open-Minded Thinking

To measure the participants' open-mindedness, Actively Open-Minded Thinking Scale (Baron, 1993) was used. This style of thinking includes the tendency to weigh new evidence against a favored belief, be open to new information and ideas, to spend sufficient time on a problem before giving up, and to consider carefully the opinions of others in forming one's own. (see Haran et al., 2013). The scale has 7 items with Likert type measurement, of which 4 of them were reverse items (Absolutely disagreed 1 – 5 Absolutely agreed; e.g., "Beliefs should always be revised in response to new information or evidence.", "One should disregard evidence that conflicts with your established beliefs."; α = .61).

2.2.3. Morality Related Measures

Moral Foundations

Moral foundations of participants were assessed by Moral Foundations Questionnaire (MFQ-30; Graham, Haidt & Nosek, 2009), in which there are 5 dimensions and two subscales that contain 30 Likert type questions in total, 6 questions for each dimension of care/harm (α = .58), fairness/cheating (α = .56), loyalty/betrayal (α = .71), authority/subversion (α = .81) and sanctity/degradation (α = .79).

First subscale contains 15 Likert type items (3 items for each dimension) that asks participants how much they agree with each statement (strongly disagree 1 – 6 strongly agree). Second subscale also contains 15 Likert type items (3 items for each dimension) that asks how much the following items are relevant with morality (not at all relevant 1

– 6 extremely relevant). Finally, 3 questions from the first subscale and 3 questions from the second subscale were brought together and averaged to finalize each dimension score.

Utilitarian Vs. Deontological Ethical Judgment

To assess participants' utilitarianism, two different measures were adopted. First, Consequentialist Thinking Scale (CTS; Piazza & Sousa, 2013) was used. This measure has 14 items with Likert type questions [Deontological response 1 – 3 Consequentialist (utilitarian) response; e.g., "Which of the following statements best characterizes your position on killing?", possible answers are: "It is never morally permissible to kill someone." (deontological answer), "If killing someone will produce greater good than bad consequences, then it is morally permissible to kill that person." (weak consequentialist answer), "If killing someone will produce greater good than bad consequences, then it is morally obligatory to kill that person." (consequentialist answer); α = .83) (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

Second, a revised version of trolley problem was used. Participants were asked to elaborate on a problem, in which there was a run-away trolley. If the trolley's path is not intervened, it will hit and kill five workers that are working on the rail-road. However, if the trolley's path is changed, one worker that is working at the other rail-road will be killed, while the other five will be saved. After explained in writing, participants are asked to judge whether it is morally right to press the button and cause one person to die in order to save five (i.e., "yes, it is right", "no, it is not right"). Additionally, participants are asked if it is permissible to press the button (never permissible 1 – 5 totally permissible) and if it is compulsory (never compulsory 1 – 5 totally compulsory). Finally, participants are asked how hard was it to provide an answer to that moral dilemma (not at all hard 1 – 5 extremely hard).

Yes-no answers were coded as 1 and 2 respectively, and the responses to this dichotomous variable represented their *main utilitarianism score.* Summed score of being permissible and being compulsory formed the *secondary utilitarianism score,*

while extracting the *being compulsory* score from *being permissible* score formed the *moral minimalism score* (adopted from Aktas, Yilmaz & Bahçekapili, 2017).

However, since the focus of this research is to understand if people that adopt different dietary and ethical lifestyles (i.e., omnivores, vegetarians, vegans) differ in terms of ethics and morality, two additional moral dilemmas with the same set of questions were added. These included dogs and sheep as characters in themselves and participants were asked to provide answers for them as well (i.e., 5 dogs vs. 1 dog, 5 sheep vs. 1 sheep). We used dogs and sheep for different reasons. We included dogs because dogs are considered one of the most liked pets both in the western societies and in the world. People adopt them and provide for them for the entirety of their lives and dogs in general holds a special place in the human world. We included sheep because they are considered mostly as edible and usable, as a commodity in general. Sheep are considered as having usable utilities such as wool, meat and milk. Sheep provides an important contribution in moral dilemmas, by enabling the comparison between dogs and themselves, as holding both titles of *animal* and a "*commodity with multiple utilities*" from the omnivores' perspective.

Speciesism

To measure participants' speciesist attitudes, a novel approach has been adopted for this research. In this approach, participants again presented with moral dilemmas, in which victims were incompatible in terms of the species they included. Specifically, there were 4 additional dilemmas presented in random order, in which there were humans on the one side, and a different animal species on the other side (i.e., 5 humans vs. 1 dog, 5 dogs vs. 1 human, 5 humans vs. 1 sheep, and 5 sheep vs. 1 human). There were three important questions that have been taken into consideration in terms of statistical analyses. First, after explained in writing, participants were asked to judge whether it is morally right to press the button and cause one death in order to save five (i.e., "yes, it is right", "no, it is not right"). Additionally, participants were asked if it was permissible to press the button (never permissible 1 – 5 totally permissible) and if it was compulsory (never compulsory 1 – 5 totally compulsory). Yes-no answers were coded as 1 and 2 respectively, and the responses to this dichotomous variable represented their *main utilitarianism scores* on that specific dilemma. Second, summed score of being

permissible and being compulsory formed the *secondary utilitarianism score*. Main aim behind this approach was to understand if groups of dietary and ethical lifestyles would differ on these species-incompatible dilemmas in terms of utilitarianism. For example, if a person is making utilitarian judgments in general (on species-compatible dilemmas), this must apply to all settings even if the dilemmas are species-incompatible dilemmas. But if a person makes deontological judgments on dilemmas in which there are 5 animals and 1 human but makes utilitarian judgments on species-compatible dilemmas (e.g., 5 humans vs. 1 human), this would mean that this person gives more value and importance to human life compared to animal life. By this type of a measurement strategy, we will be able to tell how different groups of dietary and ethical lifestyles approach utilitarianism and the value and importance of human life compared to other species, alongside with their speciesist attitudes. Although saving five animals (sheep or dog) rather than one human may not be conceptualized as utilitarianism for some people, we labeled this kind of response as utilitarianism to make the results more interpretable thoroughout the study.

3. RESULTS

3.1. DATA ANALYSIS STRATEGY

In the results section, first, we analyzed the development of the three new scales of Motivations for Veganism Scale, Cow's Milk, Dairy and Eggs Scale, and Vegan Lifestyle Scale. Second, we tested group differences of different dietary and ethical groups using MANOVA, MANCOVA ANOVA, ANCOVA and logistic regressions. We analyzed group differences in terms of demographics using ANOVA. We analyzed prosociality toward humans and toward animals with three separate ANOVA's. We conducted a 3 X 3 mixed-design ANOVA on MfVS. Then for the analysis of group differences in terms of Actively Open-Minded Thinking and Analytic Thinking style, we conducted two separate ANCOVA's. We conducted a MANCOVA and 5 separate ANCOVA's for MFQ. In order to analyze group differences in terms of consequentialist thinking, we run an ANOVA, and after that, we performed a MANOVA by including ethical dilemmas. Finally, for speciesism we conducted four logistic regressions and a mixed design ANOVA. Analyses were conducted by Jamovi 0.9.6.9 (jamovi project, 2018). All data and supplementary materials were provided on OSF (see https://osf.io/rncd4/?view_only=ab5f91cc2e19410380423a4e3b609fc0).

3.2. SCALE DEVELOPMENT

3.2.1. Motivations For Veganism Scale

Motivations for Veganism Scale was developed to assess three core motivations in the way of becoming a vegan. These motivations are thought of as attitudes and views on three most-centric approaches toward adopting the vegan philosophy and lifestyle, and these are *ethical*, *health* and *environmental* motivations. In addition to three subscales, we computed total score referring global motivations for veganism. Higher score refers to stronger attitudes toward vegan life style.

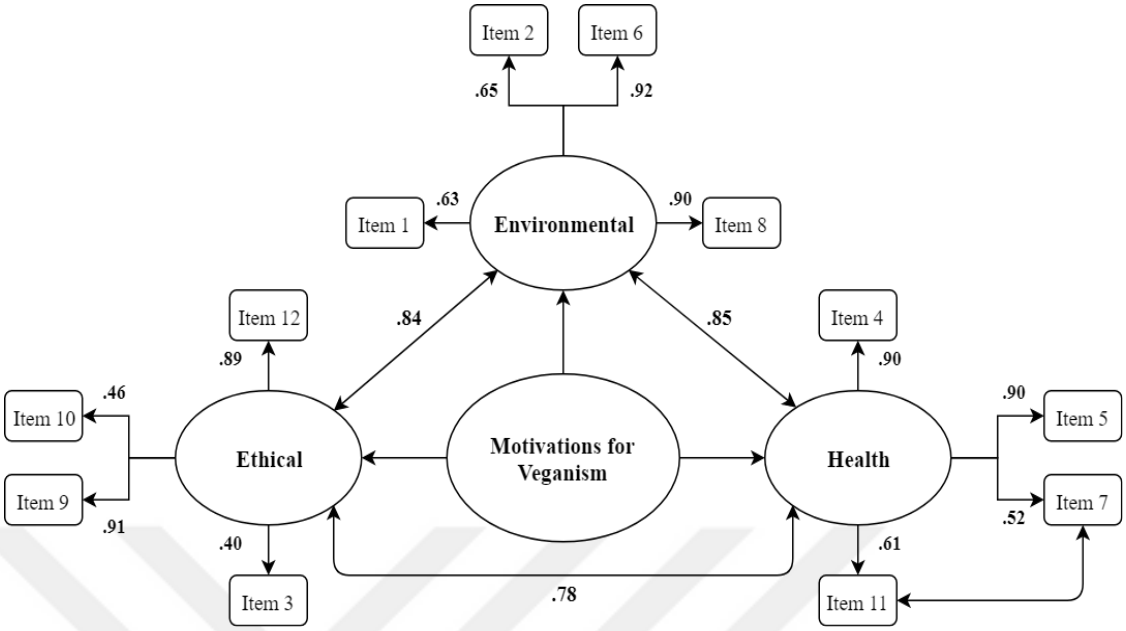
Structural Validity

First, a confirmatory factor analyses was conducted to see whether the three-dimensional approach is sufficient in explaining MfVS. Thus, the model was estimated with three latent factors of *ethical*, *health* and *environmental*. Model fit was evaluated by the Chi-Square Model Fit index, the Comparative Fit Index (CFI), Tucker Lewis Index (TLI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA). The $\chi 2/df$ ratio was also used as an additional model fit index because the Chi-Square test of absolute model fit is sensitive to sample size.

Following previous work, RMSEA value below .06 was considered a good fit (Hu & Bentler, 1999; Steiger, 2007) but an RMSEA value above .10 was considered a poor fit (Browne & Cudeck, 1993; Hu & Bentler, 1999), while SRMR values less than .06 were evaluated as an indicator of a good fit (Hu & Bentler, 1999). Additionally, the CFI is one of the most widely reported fit indices, with Hu and Bentler (1999) suggesting values equal to, or greater than, .95 on this index as a good fit, while higher TLI (a more conservative goodness of fit index) in conjunction with a low SRMR value is an indicator of a better fit.

Initial CFA yielded poor fit to the data ($\chi 2 = 474$, $p < .001$; $\chi 2/df = 9.29$; CFI = .85; TLI = .81, SRMR = .08; RMSEA = .17, 90% CI (.16–.18)). However, model modification indices also suggested some correlated errors between observed variables. Only within factor items were enabled to be freed as suggested elsewhere (Hoyle, 1995). There was one suggestion which yielded a considerable amount of improvement to the model. Modification indices suggested correlated error between item 7 (i.e., I have chosen (or thinking to choose) a vegan lifestyle because of health reasons.) and 11 (i.e., I thought that if I would give up animal products I would be much healthier and therefore I became/thinking to become a vegan), representing health dimension. After freeing up the error variances between these items, the model fit well to the data ($\chi 2 = 221$, $p < .001$; $\chi 2/df = 4.42$; CFI = .94; TLI = .92, SRMR = .06; RMSEA = .10, 90% CI (.09–.12), see Figure 1). Reliability analyses also yielded satisfactory Cronbach's alpha values for all the factors of the MfVS (i.e., α = .77 for ethical dimension, α = .86 for health dimension, α = .84 for environmental dimension).

Figure 3.1: Confirmatory Factor Analysis of Motivations for Veganism Scale



Convergent And Divergent Validity Of MfVS

Correlations between MfVS and its dimensions, Vegan Lifestyle Scale (VLS), Meat Commitment Scale (MCS), and Cow's Milk, Dairy and Eggs Commitment Scale (CMDECS) were run. Results revealed strong significant correlations between these variables (see Table 1). Specifically, MfVS was positively correlated with VLS (r = .57, p < .001) and was negatively correlated with MCS and CMDECS (r = -.77, p < .001; r = -.78, p < .001, respectively). Moreover, the relationships between subscales of VLS, MCS, and CMDECS were also significant in a expected direction. Specifically, ethical MfV was positively correlated with VLS (r = .61, p < .001) and was negatively correlated with MCS and CMDECS (r = -.78, p < .001; r = -.78, p < .001, respectively), health MfV was positively correlated with VLS (r = .47, p < .001) and was negatively correlated with MCS and CMDECS (r = -.61, p < .001; r = -.67, p < .001, respectively), and finally environmental MfV was positively correlated with VLS (r = .54, p < .001) and was negatively correlated with MCS and CMDECS (r = -.73, p < .001; r = -.74, p < .001, respectively; see Table 1).

To investigate discriminant validity, we conducted a one-way MANOVA to see if omnivores, vegetarians and vegans differ in the dimensions of MfVS. As a result, Box's

test of equality of covariance matrices was significant, Box's M = 135.16, $F(12, 196546.50) = 11.07$, $p < .001$. Therefore, Using Hotelling's Trace, there were significant group differences on MfVS, $V = 1.87$, $F(6,560) = 87.23$, $p = < .001$. Univariate analyses of ethical, health and environmental motivations also reported significant differences across groups, $F(2, 283) = 227$, $MSE = 153$, $p = <.001$; $F(2, 283) = 143.86$, $MSE = 200.15$, $p = <.001$; $F(2, 283) = 187.46$, $MSE = 150.52$, $p = <.001$; respectively. Both in multivariate and univariate analyses, vegans scored significantly higher compared to vegetarians and vegans, and vegetarians scored significantly higher compared to omnivores, suggesting that MfVS could successfully discriminate people with different dietary life styles.

3.2.2. Reliability And Validity Of Cow's Milk, Dairy And Eggs Commitment Scale

Reliability analysis of CMDECS revealed a satisfactory internal consistency (7 items, $\alpha = .93$). In order to investigate the validity of the measure (adapted from MCS), the correlations between CMDECS and MCS, MfVS, VLS were further examined. Furthermore, because CMDECS was measuring commitment to consume non-meat animal products, vegans were expected to score lowest compared to the other two groups of vegetarians and vegans. To tackle this question, a one-way ANOVA was conducted.

Correlation analyses revealed significant associations, with CMDECS showed positive correlation with MCS ($r = .71$, $p < .001$), and showed negative correlations with VLS and MfVS ($r = -.48$, $p < .001$; $r = -.79$, $p < .001$, respectively, see Table 1). One-way ANOVA with Scheffe post-hoc test revealed significant differences. Specifically, vegans ($M = 1.11$, $SD = .29$) reported lower commitment to consume non-meat animal products compared to vegetarians ($M = 2.24$, $SD = 1.01$) and omnivores ($M = 3.00$, $SD = .74$), while vegetarians reported lower levels opf commitment than omnivores, $F(2, 283) = 227.82$, $MSE = 98.41$, $p < .001$.

3.2.3. Reliability And Validity Of Vegan Lifestyle Scale

Reliability analysis of VLS yielded satisfactory internal consistency (4 items, α = .82). To investigate the validity of the measure, the correlation between VLS and MCS, CMDECS and MfVS were examined. Furthermore, because VLS is measuring self-reported behaviors in the case of a vegan lifestyle, vegans are expected to score highest compared to the other two groups of vegetarians and omnivores. To answer this question, a one-way ANOVA was conducted.

Correlation analysis revealed a negative correlation between VLS and MCS (r = -.59, p < .001), CMDECS (r = -.48, p < .001), and MfVS (r = .57, p < .001). One-way ANOVA with Scheffe post-hoc test also revealed significant differences between participants who reported different dietary life styles. Specifically, vegans (M = 4.87, SD = .27) scored higher than vegetarians (M = 4.37, SD = .54) and omnivores (M = 3.93, SD = .84), while vegetarians scored higher compared to omnivores, $F(2, 283) = 76.86$, MSE = 23.84, p < .001.

Table 3.1: Zero-order Correlations between Variables of Concern

	EthMot	EnvMot	HeaMot	MotVeg	Prosoc_H	Prosoc_A	VeganLS	DairyC	MeatC	CRT	AOMT	CnsqThnk
EthMot	—	0.841 ***	0.783 ***	0.923 ***	0.220 ***	0.328 ***	0.613 ***	-0.777 ***	-0.775 ***	0.144 *	0.384 ***	0.107
EnvMot		—	0.849 ***	0.951 ***	0.195 ***	0.293 ***	0.539 ***	-0.736 ***	-0.733 ***	0.106	0.365 ***	0.108
HeaMot			—	0.944 ***	0.178 **	0.269 ***	0.466 ***	-0.711 ***	-0.666 ***	0.035	0.288 ***	-0.013
MotVeg				—	0.209 ***	0.314 ***	0.568 ***	-0.787 ***	-0.766 ***	0.096	0.363 ***	0.065
Prosoc_H					—	0.485 ***	0.327 ***	-0.063	-0.196 ***	0.014	0.078	-0.133 *
Prosoc_A						—	0.384 ***	-0.169 **	-0.279 ***	-0.067	0.107	0.021
VeganLS							—	-0.479 ***	-0.591 ***	0.070	0.315 ***	-0.007
DairyC								—	0.707 ***	-0.115	-0.326 ***	-0.106
MeatC									—	-0.133 *	-0.364 ***	-0.124 *
CRT										—	0.264 ***	0.269 ***
AOMT											—	0.287 ***
CnsqThnk												—
p-value												—

Significance (2-tailed).Note. * p < .05, ** p < .01, *** p < .001
Variables: EthMot = Ethical Motivations for Veganism; EnvMot = Environmental Motivations for Veganism; HeaMot = Health Motivations for Veganism; MotVeg = Composite Motivations for Veganism;
Prosoc_H = Prosociality toward Humans; Prosoc_A = Prosociality toward Animals; VeganLS = Vegan Lifestyle; DairyC = Cow's Milk, Dairy and Eggs Commitment;
MeatC = Meat Commitment; CRT = Analytic Thinking; AOMT = Actively Open-Minded Thinking; CnsqThnk = Consequentialist Thinking

3.3. STRUCTURAL VALIDITY OF MORAL FOUNDATIONS

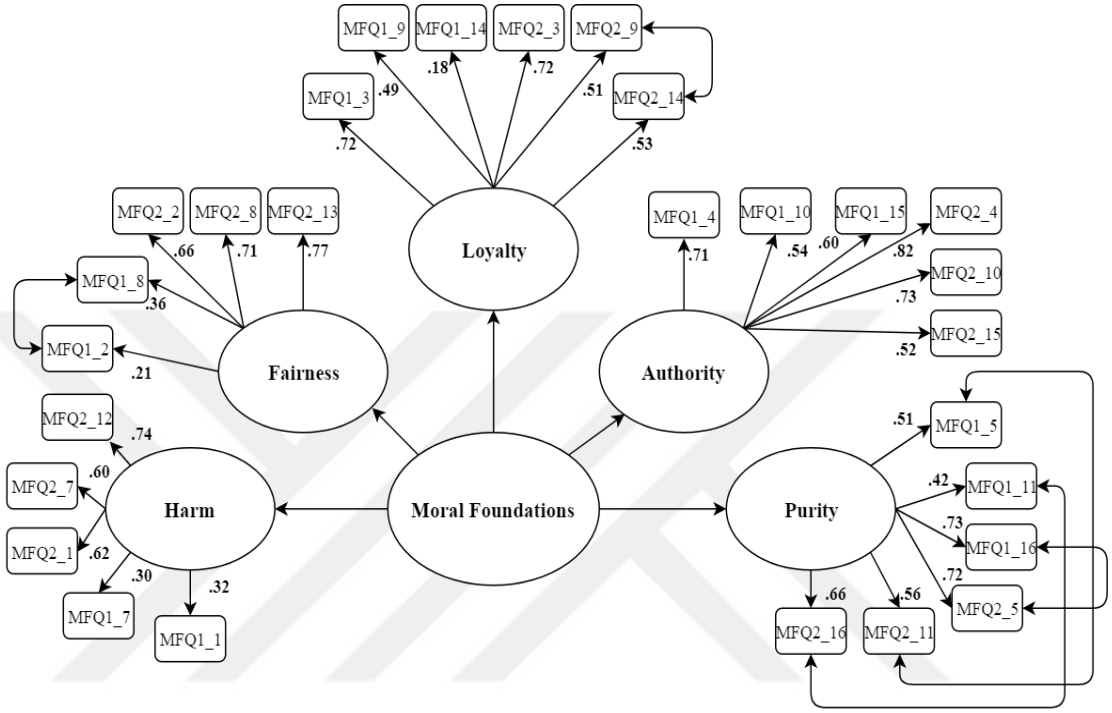
To examine the reliability and the structural validity of MFQ in our sample, a confirmatory factor analysis was conducted, and the Cronbach's Alpha scores were computed. Following original study of Graham, Haidt and Nosek (2009), Model estimation conducted with five latent factors of *care/harm*, *fairness/cheating*, *loyalty/betrayal*, *authority/subversion* and *sanctity/degradation*. The model fit has been evaluated by the Chi-Square Model Fit index, the Comparative Fit Index (CFI), Tucker Lewis Index (TLI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA), The $\chi 2/df$ ratio was also used as an additional model fit index because the Chi-Square test of absolute model fit is sensitive to sample size.

First results yielded an unsatisfactory and unacceptable fit, [$\chi 2 = 1221$, $p < .001$; $\chi 2/df = 3.09$; CFI = .74; TLI = .72, SRMR = .09; RMSEA = .09, 90% CI (.08–.09)]. However, two items in MFQ yielded insignificant representative values of their relative dimensions. These were item number 12 of care/harm dimension (i.e., "It can never be right to kill a human being."; $p = .249$) and item number 13 of fairness/cheating dimension (i.e., "I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing."; $p = .196$). Thus, these items were excluded from the further analysis. But again, this resolution did not lead to a satisfactory fit, [$\chi 2 = 1109$, $p < .001$; $\chi 2/df = 3.26$; CFI = .76; TLI = .73, SRMR = .09; RMSEA = .09, 90% CI (.08–.09)].

Additionally, model modification indices also suggested some correlated errors between observed variables. Only within factor items are enabled to be freed as suggested elsewhere (Hoyle, 1995). There were five modification suggestions that were applicable and these were between item numbers of 11(1) and 16(2), 9(2) and 14(2), 2(1) and 8(1), 5(1) and 11(2), 16(1) and 5(1). Values presented in parentheses represent the subscale that these items belonged. After these additions of correlated errors, the model estimation yielded again poor fit to the data, [$\chi 2 = 968$, $p < .001$; $\chi 2/df = 2.89$; CFI = .80; TLI = .76, SRMR = .08; RMSEA = .08, 90% CI (.07–.09), see Figure 2]. This unsatisfactory model fit estimations were consistent with previous studies using different samples (Yilmaz, Bahcekapili, & Harma, 2015). For the reliability analyses,

results yielded acceptable Cronbach's Alpha scores for care/harm and fairness/cheating dimensions (α = .66, α = .67), resulting adequately reliable subscales for all dimensions.

Figure 3.2: Confirmatory Factor Analysis of Moral Foundations Questionnaire



3.4. GROUP DIFFERENCES BETWEEN DIETARY AND ETHICAL LIFESTYLES ON VARIABLES OF CONCERN

3.4.1. Demographical Differences

In order to understand the differences on demographics between omnivores, vegetarians and vegans, four separate one-way ANOVAs with Scheffe post-hoc tests were conducted with DV's of age, education, political orientation and religiosity.

Results revealed that vegans (M = 30.08, SD = 8.23) were older in age compared to vegetarians (M = 26.61, SD = 7.98) and omnivores (M = 22, SD = 2.99), and vegetarians were older in age compared to omnivores, $F(2, 282) = 35.21$, $MSE = 1741.55$, $p < .001$. Moreover, vegans (M = 4.60, SD = 1.32) were more educated (elementary school graduation 1 – 7 PhD graduation) compared to vegetarians (M = 3.87, SD = 1.13) and

omnivores (M = 3.20, SD = .66), and vegetarians were more educated compared to omnivores, $F(2, 284) = 42.31$, $MSE = 52.45$, $p < .001$. In terms of political orientations, in a spectrum of left and right (left 1 – 7 right), omnivores (M = 3.43, SD = 1.02) reported significantly more right-wing political orientation compared to vegetarians (M = 2.70, SD = 1) and vegans (M = 2.41, SD = .78). Vegans and vegetarians did not significantly differ from each other, $F(2, 247) = 29.18$, $MSE = 23.98$, $p < .001$. Finally, on religiosity, in a spectrum (not at all religious 1 – 7 extremely religious), vegans (M = 1.73, SD = 1.34) reported lower levels of religiosity compared to vegetarians (M = 2.44, SD = 1.58) and omnivores (M = 3.33, SD = 1.58), and vegetarians reported lower levels of religiosity compared to omnivores, $F(2, 282) = 31.38$, $MSE = 67.99$, $p < .001$.

3.4.2. Prosociality (Toward Humans & Toward Animals)

To assess the group differences on prosociality toward humans and toward animals, three one-way ANOVAs have been conducted, because there were two prosociality toward humans measures were present. Results of the first ANOVA with the dependent variable of the single-item measure of prosociality toward humans revealed no significant differences across groups, $F(2,280) = 1.26$, $MSE = 523.81$, $p = .285$. However, the second ANOVA with Scheffe post-hoc test with the DV of two-item prosociality toward humans measure revealed marginally significant differences across groups, with vegetarians (M = 5.80, SD = 1.06) and vegans (M = 5.70, SD = 1.05) scored insignificantly higher compared to omnivores (M = 5.41, SD = 1.14), $F(2,283) = 2.82$, $MSE = 3.28$, $p = .061$. Finally, in the third ANOVA with Scheffe post-hoc test with the DV of two-item prosociality toward animals measure revealed significant differences, with vegans (M = 5.88, SD = 1.28) and vegetarians (M = 5.86, SD = 1.15) scored higher on prosociality toward animals compared to omnivores (M = 5.28, SD = 1.18), $F(2,283) = 7.14$, $MSE = 10.65$, $p = .001$, while vegetarians and vegans did not significantly differ from each other.

3.4.3. Motivations For Veganism

To see motivational differences among three different dietary and ethical lifestyle groups on three core motivations of veganism, 3 between-subjects (omnivores,

vegetarians, vegans) X 3 within-subjects (ethical, health, environmental) mixed design ANOVA has been conducted. Results revealed that there was a significant main effect of dietary lifestyle groups, $F(2, 283) = 242.29$, $MSE = 501.25$, $p < .001$ on MfVS. Specifically, vegans ($M = 6.13$, $SE = .07$) had higher motivations for veganism compared to vegetarians ($M = 5.23$, $SE = .11$) and omnivores ($M = 3.62$, $SE = .09$), while vegetarians also scored higher on motivations for veganism compared to omnivores, suggesting convergent validity of the developed scale. Also, there was a significant main effect of motivations for veganism, but since Mauchly's test of sphericity was significant (Mauchly's W = .88, $p < .001$), the Greenhouse-Geisser values was reported, $F(1.78, 503.04) = 366.92$, $MSE = 166.03$, $p < .001$. Ethical motivations ($M = 5.62$, $SE = .05$) was higher compared to environmental ($M = 5.20$, $SE = .06$), and health motivations ($M = 4.16$, $SE = .07$), while environmental motivations were also higher compared to health motivations. Finally, there was also a significant interaction between these two variables, $F(3.56, 503.04) = 3.04$, $MSE = 1.37$, $p = .021$. Although this was the case, further analyses investigating the depth of this finding yielded no significant results that would provide additional information.

3.4.4. Actively Open-Minded Thinking And Analytic Thinking Style

To understand the group differences between omnivores, vegetarians and vegans on actively open-minded thinking and analytic thinking style, two separate ANCOVAs with Bonferroni correction have been conducted, with political orientation and religiosity as covariates. Since both political orientation and religiosity are significantly different between groups, controlling these variables would result in a more reliable outcome in terms of group differences on these two variables.

Following previous group differences on political orientation and religiosity, we run ANCOVA, results indicated that when controlling for political orientation and religiosity, vegans ($M = 3.84$, $SE = .05$) reported higher levels of open-mindedness compared to omnivores ($M = 3.50$, $SE = .07$), while vegetarians ($M = 3.70$, $SE = .07$) were in the middle and did not significantly differ from both of these groups, $F(2, 229) = 7.94$, $MSE = 1.94$, $p < .001$.

For analytic thinking style (intuitive 0 – 3 analytic), results indicated that when controlling for political orientation and religiosity, vegans ($M = 1.66$, $SE = .12$) showed

higher degree of analytic thinking on CRT compared to omnivores (M = 1.07, SE = .16), while vegetarians (M = 1.35, SE = .17) were in the middle and did not significantly differ from both of these groups, $F(2, 229) = 4.41$, $MSE = 6.29$, $p = .013$.

3.4.5. Moral Foundations Differences Between Dietary And Ethical Lifestyle Groups

To understand if omnivores, vegetarians and vegans differ in terms of their moral foundations on the five moral foundations of care/harm, fairness/cheating, loyalty/betrayal, authority/subversion and sanctity/degradation (a.k.a., purity), a MANCOVA with Bonferroni correction with political orientation as covariate was conducted to see whether omnivores, vegetarians and vegans differ in terms of moral foundations. Using Pillai's Trace, results yielded significant group differences on moral foundations, $V = .26$, $F(10, 486) = 7.12$, $p = < .001$. After the initial MANCOVA, we wanted to report all the univariate analyses.

For the care/harm dimension, results yielded significant group differences, with vegans (M = 5.22, SE = .06) scored higher compared to both vegetarians (M = 4.72, SE = .09) and omnivores (M = 4.71, SE = .09), $F(2, 246) = 15.06$, $MSE = 6.99$, $p < .001$. Vegetarians and omnivores did not significantly differ from each other. (See Figure 3, Section A)

For the fairness/cheating dimension, results yielded significant group differences, with vegans (M = 5.13, SE = .06) scored higher compared to omnivores (M = 4.87, SE = .07), but not significantly different from vegetarians (M = 5.03, SE = .08), $F(2, 246) = 3.67$, $MSE = 1.22$, $p = .027$. Vegetarians and omnivores also did not significantly differ from each other (See Figure 3, Section B).

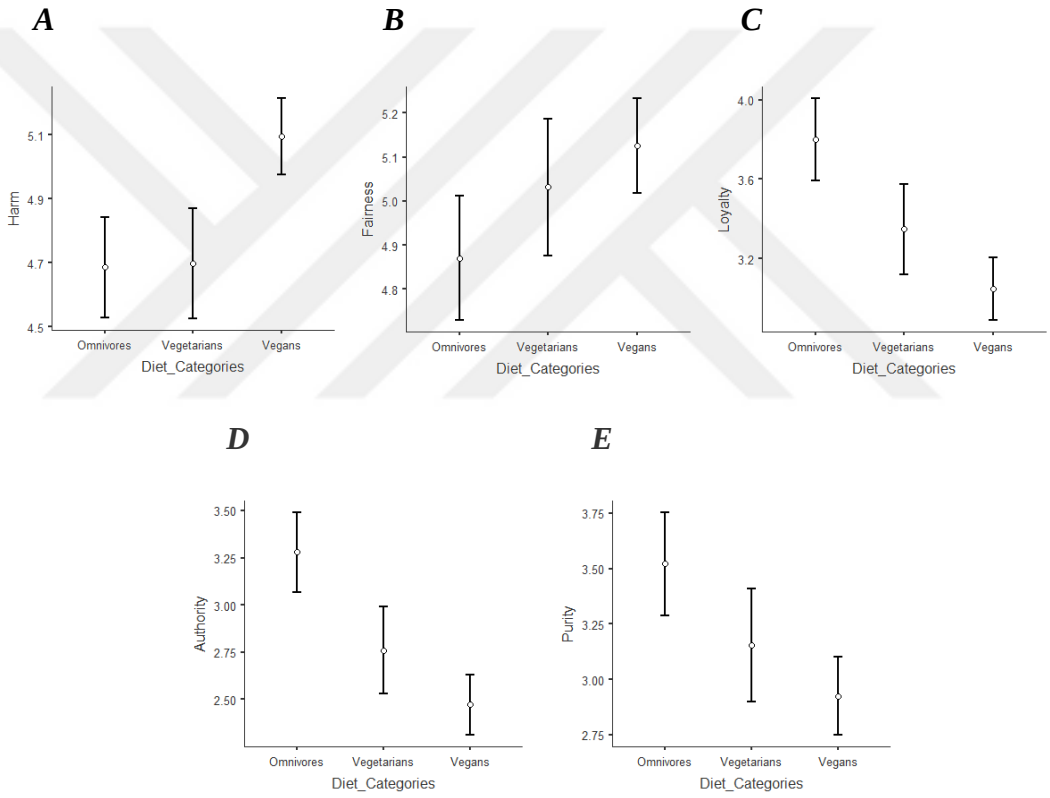
For the loyalty/betrayal dimension, results yielded significant group differences, with vegans (M = 3.05, SE = .08) and vegetarians (M = 3.35, SE = .12) scored lower compared to omnivores (M = 3.80, SE = .11), $F(2, 246) = 14.85$, $MSE = 10.66$, $p < .001$. Vegans and vegetarians did not significantly differ from each other (See Figure 3, Section C).

For the authority/subversion dimension, results yielded significant group differences, with vegans (M = 2.47, SE = .08) and vegetarians (M = 2.76, SE = .12) scored lower compared to omnivores (M = 3.28, SE = .11), $F(2, 246) = 16.39$, $MSE = 12.26$, $p < .001$.

Vegans and vegetarians did not significantly differ from each other (See Figure 3, Section D).

Finally, for the sanctity/degradation (a.k.a., purity) dimension, results yielded significant group differences, with vegans (M = 2.93, SE = .09) scored lower compared to omnivores (M = 3.52, SE = .12), but not significantly different from vegetarians (M = 3.15, SE = .13), $F(2, 246) = 7.38$, MSE = 6.66, p = .001. Vegetarians and omnivores also did not significantly differ from each other (See Figure 3, Section E).

Figure 3.3: Estimated marginal mean plots of three dietary and ethical groups on Moral Foundations: A = Harm; B = Fairness; C = Loyalty; D = Authority; E = Purity



3.4.6. Consequentialist Thinking, Moral Minimalism, And Utilitarian Vs. Deontological Moral Judgment

To understand whether groups of dietary lifestyles differ on consequentialist thinking, a one-way ANOVA with Scheffe post-hoc test was conducted. Results of one-way

ANOVA was significant, $F(2, 283) = 3.42$, $MSE = .30$, $p = .034$. However, Scheffe post-hoc test revealed insignificant pairwise differences between omnivores ($M = 1.49$, $SD = .30$), vegetarians ($M = 1.50$, $SD = .25$) and vegans ($M = 1.58$, $SD = .31$).

Similarly, to understand whether groups of dietary and ethical lifestyles differ in terms of utilitarian vs. deontological ethical decision making, a MANOVA was conducted with the three utilitarianism scores of species-compatible moral dilemmas (i.e., all victims were the same species; 5 humans vs. 1 human, 5 dogs vs. 1 dog, 5 sheep vs. 1 sheep) as DVs. As a result, Box's test of equality of covariance matrices was significant, Box's M = 58.05, $F(12, 196546.50) = 4.75$, $p < .001$. Therefore, Using Hotelling's Trace, no significant difference was found on the utilitarianism scores between omnivores, vegetarians and vegans, $V = .03$, $F(6,560) = 1.52$, $p = .169$. Univariate analyses of Human vs. Human, Dog vs. Dog and Sheep vs. Sheep also reported nonsignificant differences across groups, $F(2, 283) = .16$, $MSE = .82$, $p = .855$; $F(2, 283) = .46$, $MSE = 2.61$, $p = .629$; $F(2, 283) = .02$, $MSE = .12$, $p = .980$; respectively.

Finally, to investigate whether groups of dietary lifestyles differ in terms of moral minimalism, a MANOVA was conducted with the three moral minimalism scores of species-compatible moral dilemmas (i.e., 5 humans vs. 1 human, 5 dogs vs. 1 dog, 5 sheep vs. 1 sheep) as DVs. As a result, Box's test of equality of covariance matrices was significant, Box's M = 30.30, $F(12, 196546.50) = 2.48$, $p = .003$. Therefore, Using Hotelling's Trace, no significant difference was found on the moral minimalism scores between omnivores, vegetarians and vegans, $V = .03$, $F(6,560) = 1.24$, $p = .284$. Univariate analyses of Human vs. Human, Dog vs. Dog and Sheep vs. Sheep also reported insignificant differences across groups, $F(2, 283) = 1.06$, $MSE = 1.41$, $p = .349$; $F(2, 283) = 1.70$, $MSE = 2.20$, $p = .184$; $F(2, 283) = .61$, $MSE = .80$, $p = .543$; respectively.

3.4.7. Differences of Speciesist Attitudes Between Dietary And Ethical Lifestyle Groups

To investigate if individuals defined themselves with different dietary lifestyle favored their species (or not) when revised ethical dilemmas were presented, a novel approach was adopted (see detailed explanations about species-incompatible dilemmas in the

Methods section). Four separate logistic regressions and a mixed design ANOVA were conducted in order to fully understand the pattern of speciesism.

First, logistic regressions included dietary and ethical lifestyle groups (omnivores, vegetarians, vegans as dummy coded) as IVs and the categorical *main utilitarianism scores* on different types of dilemma (i.e., yes, it is right, no, it is wrong on species-incompatible dilemmas; i.e., 5 humans vs. 1 dog, 5 dogs vs. 1 human, 5 humans vs. 1 sheep, 5 sheep vs. 1 human) as DVs.

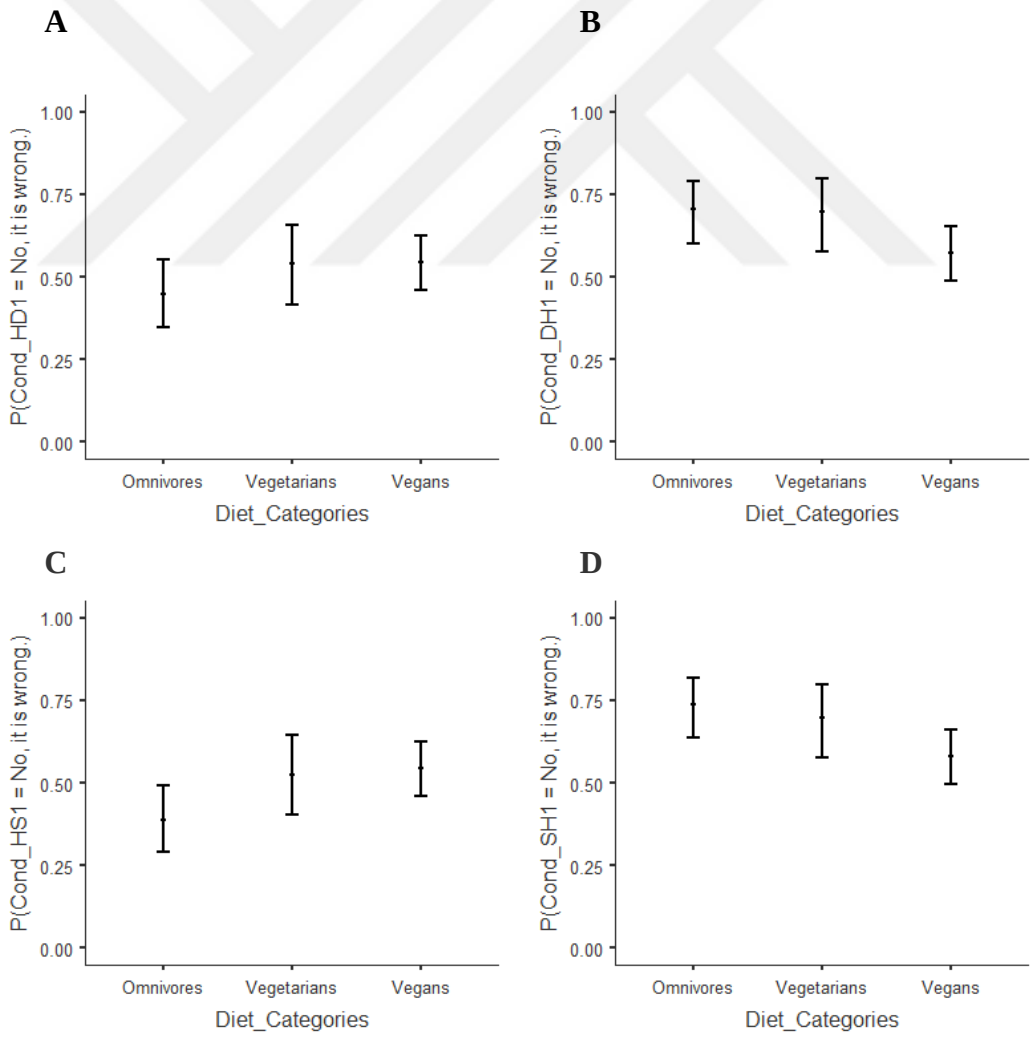
Second, we examined a 3 dietary and ethical lifestyle group (omnivores, vegetarians, vegans) X 4 secondary utilitarianism scores on different types of dilemma (species-incompatible dilemmas; i.e., 5 humans vs. 1 dog, 5 dogs vs. 1 human, 5 humans vs. 1 sheep, 5 sheep vs. 1 human) via the last factor repeated measures design ANOVA.

3.4.8. Predicting Utilitarian Responses Using Dietary Lifestyles Logistic Regressions

We estimated whether participants evaluated presented dilemma right or wrong as a function on their dietary lifestyle with series of logistic regressions. First logistic regression analysis with dietary and ethical lifestyle groups (omnivores, vegetarians, vegans) as IV and the categorical *main utilitarianism score* (answers; yes, it is right, no, it is wrong) of 5 Humans vs. 1 Dog dilemma as DV yielded nonsignificant results, X^2 = 2.17, *df* = 2, p = .339 (see Figure 4, Section A). Second logistic regression analysis with the categorical *main utilitarianism score* of 5 Dogs vs. 1 Human dilemma as DV revealed marginally significant results, X^2 = 5.14, *df* = 2, p = .76. Specifically, model coefficients reported a significant p-value of the difference between omnivores and vegans in their responses, *Odds ratio* = .56, *p* = .049, 95% CI (.32–1.00). Meaning that vegans were less likely to give the answer "No, it is not right", compared to omnivores which eventually mean more utilitarian answers but the difference was nonsignificant since the overall model test was insignificant (see Figure 4, Section B). Third logistic regression analysis with the categorical *main utilitarianism score* of 5 Humans vs. 1 Sheep dilemma as DV revealed marginally significant results, X^2 = 5.70, *df* = 2, p = .058. Specifically, model coefficients reported a significant p-value of the difference between omnivores and vegans in their responses, *Odds ratio* = 1.90, *p* = .022, 95% CI (1.10–3.27). Meaning that vegans were more likely to give the answer "No, it is not

right", compared to omnivores which eventually mean more deontological answers but the difference was nonsignificant since the overall model test was insignificant (see Figure 4, Section C). Fourth logistic regression analysis with the categorical *main utilitarianism score* of 5 Sheep vs. 1 Human dilemma as DV yielded significant results, X^2 = 6.60, *df* = 2, p = .037. Specifically, model coefficients reported a significant p-value of the difference between omnivores and vegans in their responses, *Odds ratio* = 0.49, *p* = .017, 95% CI (.27–.88). Meaning that vegans were less likely to give the answer "No, it is not right", compared to omnivores which eventually mean more utilitarian answers. (see Figure 4, Section D).

Figure 3.4: Estimated marginal means plots of four logistic regression analyses; A = 5 Humans vs. 1 Dog; B = 5 Dogs vs. 1 Human; C = 5 Humans vs. 1 Sheep; D = 5 Sheep vs. 1 Human



Overall, these results revealed that by using the categorical *main utilitarianism scores* (i.e., Yes, it is right vs No, it is wrong), especially in 5 Sheep vs. 1 Human dilemma, dietary and ethical lifestyle groups largely predicted categorical utilitarianism responses in species-incompatible moral dilemmas. Vegans were more likely to give the *utilitarian*[1] response compared to omnivores in the 5 Sheep vs. 1 Human dilemma, meaning that for vegans, quantity of the beings were more influential on their decision-making process in terms of utilitarianism rather than the species of the participants of the dilemma.

3.4.9. Dietary Lifestyle Differences In Species-Incompatible Ethical Dilemmas

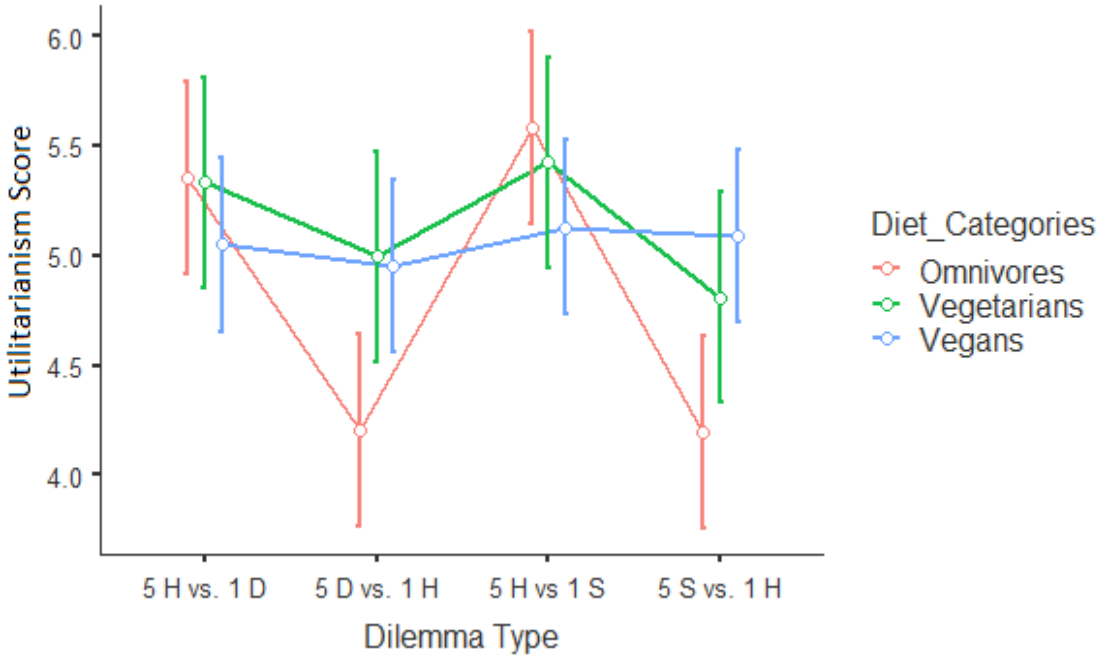
To understand the differences of speciesist attitudes between omnivores, vegetarians and vegans, 3 dietary lifestyle group (omnivores, vegetarians, vegans) X 4 secondary utilitarianism scores on different types of dilemma (species-incompatible dilemmas; i.e., 5 humans vs. 1 dog, 5 dogs vs. 1 human, 5 humans vs. 1 sheep, 5 sheep vs. 1 human) the last factor repeated measures ANOVA was conducted. Results yielded a significant Mauchly's test of sphericity value, Mauchly's W = .29, $p < .001$. Therefore, Greenhouse-Geisser values were reported. A significant main effect of the type of moral dilemma was found, $F(1.66, 469.75) = 19.90$, $MSE = 58.71$, $p < .001$. Participants scored less *utilitarian*[1] on moral dilemmas that include humans in fewer numbers compared to moral dilemmas that include animals in fewer numbers. Specifically, on 5 dogs vs. 1 human ($M = 4.71$, $SE = .12$) and 5 sheep vs. 1 human ($M = 4.70$, $SE = .12$) dilemmas, participants scored less *utilitarian*[1] and more deontological compared to 5 humans vs. 1 dog ($M = 5.25$, $SE = .14$) and 5 humans vs. 1 sheep ($M = 5.38$, $SE = .14$). Scores within moral dilemmas that include humans in fewer numbers and scores within moral dilemmas that include animals in fewer numbers were not significantly different from each other among people with different dietary life styles.

Results also yielded a significant interaction between the type of dilemma and dietary and ethical lifestyle group, $F(3.32, 469.75) = 8.12$, $MSE = 23.97$, $p < .001$ (see Figure 5). There was no main effect of dietary and ethical lifestyle groups. To understand this

[1] As we mentioned earlier, we labeled this kind of response as utilitarianism due to the practical reasons. Actually, saving one human over five animals could also be defined as utilitarianism. One human might have higher rate of utility compared to five animals.

interaction, three separate repeated measures ANOVAs with four different species-incompatible dilemmas as DVs and dietary and ethical lifestyle groups as IVs were conducted. First repeated measures ANOVA included only omnivores, second included only vegetarians and third included only vegans. Additionally, four separate one-way ANOVAs as species-incompatible dilemmas as DVs and dietary and ethical lifestyle groups as IVs were conducted. First one-way ANOVA included utilitarianism scores of 5 humans vs. 1 dog dilemma as DV, second one-way ANOVA included utilitarianism scores of 5 dogs vs. 1 human as DV, third one-way ANOVA included utilitarianism scores of 5 humans vs. 1 sheep as DV and fourth and last one-way ANOVA included utilitarianism scores of 5 sheep vs. 1 human as DV.

Figure 3.5: The Plot of Speciesism: Secondary Utilitarianism Scores of Dietary and Ethical Lifestyle Groups on Species-Incompatible Moral Dilemmas



Note: 5 H vs. 1 D = 5 Humans vs. 1 Dog, 5 D vs. 1 H = 5 Dogs vs. 1 Human, 5 H vs. 1 S = 5 Humans vs. 1 Sheep, 5 S vs. 1 H = 5 Sheep vs. 1 Human

First repeated measures ANOVA with Bonferroni correction, including only omnivores yielded significant Mauchly's test of sphericity value, Mauchly's W = .26, $p < .001$. Therefore, Greenhouse-Geisser values were reported. Analysis yielded a significant difference of utilitarianism scores across the type of dilemma, $F(1.64, 141.10) = 24.15$, $MSE = 86.94$, $p < .001$. Omnivores scored less utilitarian on moral dilemmas that

include five animals and one human compared to moral dilemmas that include five humans and one animal. Specifically, on 5 dogs vs. 1 human (M = 4.21, SD = 1.65) and 5 sheep vs. 1 human (M = 4.20, SD = 1.68) dilemmas, omnivores scored less utilitarian and more deontological compared to 5 humans vs. 1 dog (M = 5.36, SD = 2.33) and 5 humans vs. 1 sheep (M = 5.59, SD = 2.29). This essentially means that omnivores tended to save humans regardless of their quantities in the dilemmas, thus deviating from their utilitarian decision-making pattern.

Second repeated measures ANOVA with Bonferroni correction including only vegetarians yielded significant Mauchly's test of sphericity value, Mauchly's W = .23, p < .001. Therefore, Greenhouse-Geisser values were reported. Analyses yielded no difference of utilitarianism scores for vegetarians across the type of dilemma, F(1.81, 112.39) = 2.61, MSE = 8.67, p = .084. Although there were no significant differences between groups, the pattern was similar. Specifically, on 5 dogs vs. 1 human (M = 5.00, SD = 1.91) and 5 sheep vs. 1 human (M = 4.81, SD = 1.90) dilemmas, vegetarians scored relatively but insignificantly less utilitarian and more deontological compared to 5 humans vs. 1 dog (M = 5.33, SD = 2.01) and 5 humans vs. 1 sheep (M = 5.43, SD = 2.03).

Third repeated measures ANOVA with Bonferroni correction including only vegans yielded significant Mauchly's test of sphericity value, Mauchly's W = .16, p < .001. Therefore, Greenhouse-Geisser values were reported. Analyses yielded no difference of utilitarianism scores for vegans across the type of dilemma, F(1.50, 202.12) = .62, MSE = 1.54, p = .496. Utilitarianism scores across the type of dilemma were almost identical. Specifically, vegans scored almost identical on 5 humans vs. 1 dog (M = 5.05, SD = 2.19), 5 dogs vs. 1 human (M = 4.96, SD = 2.21), 5 humans vs. 1 sheep (M = 5.13, SD = 2.24) and 5 sheep vs. 1 human (M = 5.09, SD = 2.15).

After the repeated measures ANOVA's, we conducted four one-way ANOVA's to be able to deeply analyze the significant interaction. First one-way ANOVA with Scheffe post-hoc test including the moral dilemma with five humans vs. one dog as DV yielded no significant differences across dietary and ethical lifestyle groups, F(2, 283) = .65, MSE = 3.12, p = .524.

Second one-way ANOVA with Scheffe post-hoc test including the moral dilemma with five dogs vs. one human as DV yielded significant differences across dietary and ethical

lifestyle groups, $F(2, 284) = 4.54$, $MSE = 17.91$, $p = .011$. Vegans ($M = 4.96$, $SD = 2.21$) scored significantly higher on utilitarianism scores compared to omnivores ($M = 4.20$, $SD = 1.64$), while vegetarians ($M = 5.00$, $SD = 1.91$) scored marginally significantly higher (Scheffe, $p = .054$) compared to omnivores. Vegetarians and vegans did not significantly differ from each other.

Third one-way ANOVA with Scheffe post-hoc test including the moral dilemma with five humans vs. one sheep as DV yielded no significant differences across dietary and ethical lifestyle groups, $F(2, 284) = 1.37$, $MSE = 6.74$, $p = .256$.

Fourth and last one-way ANOVA with Scheffe post-hoc test including the moral dilemma with five sheep vs. one human as DV yielded significant differences across dietary and ethical lifestyle groups, $F(2, 284) = 5.99$, $MSE = 21.53$, $p = .004$. Vegans ($M = 5.09$, $SD = 2.15$) scored significantly higher on utilitarianism scores compared to omnivores ($M = 4.19$, $SD = 1.67$). Vegetarians ($M = 4.81$, $SD = 1.90$) on the other hand were in the middle, but did not significantly differ from either group.

Next, a 3 dietary and ethical lifestyle group (i.e., omnivores, vegetarians, vegans) X 3 type of dilemma (i.e., 5 dogs vs. 1 human, 5 sheep vs 1 human, 5 humans vs. 1 human) the last factor repeated measures ANOVA with Bonferroni correction yielded significant Mauchly's Test of sphericity value, Mauchly's $W = 66$, $p < .001$. Therefore, Greenhouse-Geisser values were reported. Analysis yielded a significant main effect of the type of dilemma, $F(1.49, 422.19) = 20.65$, $MSE = 49.18$, $p < .001$. In general, participants scored higher utilitarianism scores on five humans vs. one human dilemma ($M = 5.36$, $SE = .14$) compared to five dogs vs. one human ($M = 4.72$, $SE = .12$) and five sheep vs. one human ($M = 4.70$, $SE = .12$) dilemmas. Utilitarianism scores in dilemmas which contained animals were not significantly different from each other. Also, there was a significant interaction between dietary and ethical lifestyle groups and type of dilemma, $F(2.98, 422.19) = 20.65$, $MSE = 8.96$, $p = .011$. There was no significant main effect of dietary and ethical lifestyle groups, $F(2, 283) = 2.78$, $MSE = 26.36$, $p = .064$. In order to understand this interaction more clearly, post-hoc comparisons with Bonferroni correction have been presented as seen in Table 2.

Table 3.2: Post-hoc comparisons with Bonferroni correction, investigating the interaction term between Dilemma Type and Dietary and Ethical Lifestyle Groups

Comparison									
Dilemma Type	**Diet Categories**		**Dilemma Type**	**Diet Categories**	**Mean Difference**	**SE**	**df**	**t**	**$p_{bonferroni}$**
5 D vs. 1 H	Omnivores	-	5 D vs. 1 H	Vegetarians	-0.7931	0.345	500	-2.3007	0.785
		-	5 D vs. 1 H	Vegans	-0.7490	0.286	500	-2.6182	0.328
		-	5 S vs. 1 H	Omnivores	0.0115	0.202	566	0.0569	1.000
		-	5 S vs. 1 H	Vegetarians	-0.6026	0.345	500	-1.7482	1.000
		-	5 S vs. 1 H	Vegans	-0.8813	0.286	500	-3.0809	0.078
		-	5 H vs. 1 H	Omnivores	-1.1724	0.202	566	-5.8014	< .001
		-	5 H vs. 1 H	Vegetarians	-1.0471	0.345	500	-3.0375	0.090
		-	5 H vs. 1 H	Vegans	-1.2416	0.286	500	-4.3403	< .001
	Vegetarians	-	5 D vs. 1 H	Vegans	0.0441	0.318	500	0.1389	1.000
		-	5 S vs. 1 H	Omnivores	0.8046	0.345	500	2.3341	0.720
		-	5 S vs. 1 H	Vegetarians	0.1905	0.237	566	0.8021	1.000
		-	5 S vs. 1 H	Vegans	-0.0882	0.318	500	-0.2778	1.000
		-	5 H vs. 1 H	Omnivores	-0.3793	0.345	500	-1.1004	1.000
		-	5 H vs. 1 H	Vegetarians	-0.2540	0.237	566	-1.0694	1.000
		-	5 H vs. 1 H	Vegans	-0.4485	0.318	500	-1.4124	1.000
	Vegans	-	5 S vs. 1 H	Omnivores	0.7605	0.286	500	2.6584	0.292
		-	5 S vs. 1 H	Vegetarians	0.1464	0.318	500	0.4609	1.000
		-	5 S vs. 1 H	Vegans	-0.1324	0.162	566	-0.8188	1.000
		-	5 H vs. 1 H	Omnivores	-0.4234	0.286	500	-1.4802	1.000
		-	5 H vs. 1 H	Vegetarians	-0.2981	0.318	500	-0.9387	1.000
		-	5 H vs. 1 H	Vegans	-0.4926	0.162	566	-3.0479	0.087
5 S vs. 1 H	Omnivores	-	5 S vs. 1 H	Vegetarians	-0.6141	0.345	500	-1.7815	1.000
		-	5 S vs. 1 H	Vegans	-0.8928	0.286	500	-3.1210	0.069
		-	5 H vs. 1 H	Omnivores	-1.1839	0.202	566	-5.8583	< .001
		-	5 H vs. 1 H	Vegetarians	-1.0586	0.345	500	-3.0708	0.081

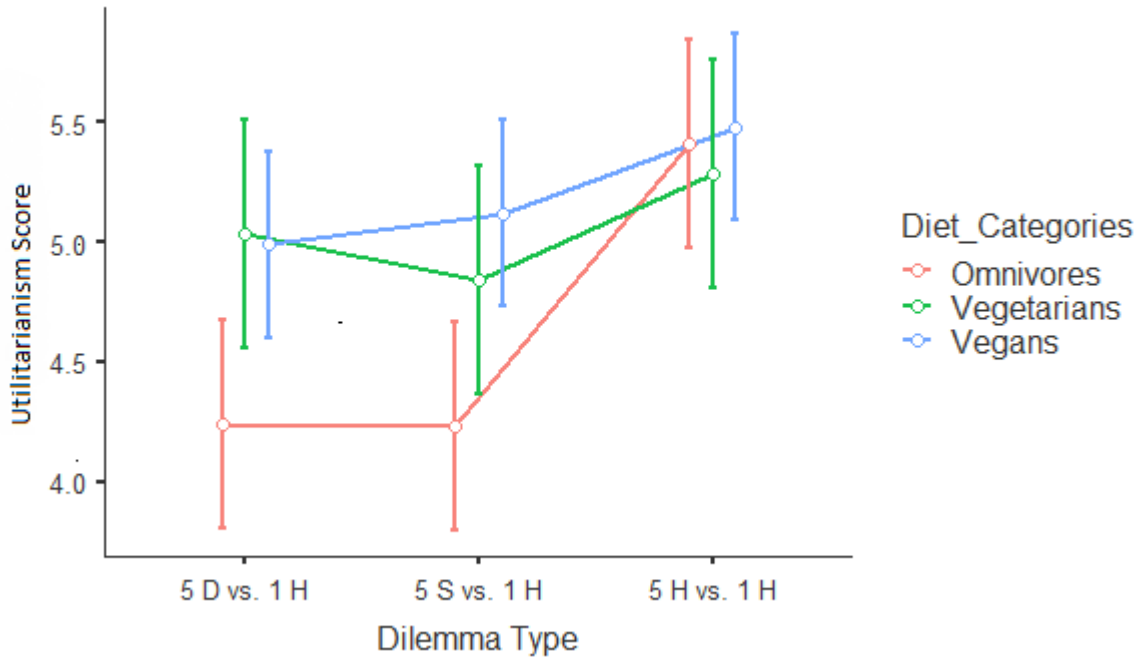
Table 3.2: Post-hoc comparisons with Bonferroni correction, investigating the interaction term between Dilemma Type and Dietary and Ethical Lifestyle Groups

Comparison									
Dilemma Type	**Diet Categories**		**Dilemma Type**	**Diet Categories**	**Mean Difference**	**SE**	**df**	**t**	**$p_{bonferroni}$**
5 H vs. 1 H		-	5 H vs. 1 H	Vegans	-1.2531	0.286	500	-4.3805	< .001
	Vegetarians	-	5 S vs. 1 H	Vegans	-0.2787	0.318	500	-0.8776	1.000
		-	5 H vs. 1 H	Omnivores	-0.5698	0.345	500	-1.6529	1.000
		-	5 H vs. 1 H	Vegetarians	-0.4444	0.237	566	-1.8715	1.000
		-	5 H vs. 1 H	Vegans	-0.6390	0.318	500	-2.0122	1.000
	Vegans	-	5 H vs. 1 H	Omnivores	-0.2911	0.286	500	-1.0175	1.000
		-	5 H vs. 1 H	Vegetarians	-0.1657	0.318	500	-0.5219	1.000
		-	5 H vs. 1 H	Vegans	-0.3603	0.162	566	-2.2291	0.943
	Omnivores	-	5 H vs. 1 H	Vegetarians	0.1253	0.345	500	0.3636	1.000
		-	5 H vs. 1 H	Vegans	-0.0692	0.286	500	-0.2420	1.000
	Vegetarians	-	5 H vs. 1 H	Vegans	-0.1946	0.318	500	-0.6127	1.000

Note: H = Human/s, D = Dog/s, S = Sheep

According to these results, vegans and vegetarians did not significantly differ in terms of their utilitarianism scores on different dilemmas. Omnivores however, scored more utilitarian on 5 Humans vs. 1 Human dilemma (M = 5.41, SE = .22) compared to 5 Dogs vs. 1 Human (M = 4.24, SE = .22), df = 566, t = -5.80, p < .001. They also scored more utilitarian on 5 Humans vs. 1 Human dilemma compared to 5 Sheep vs. 1 Human (M = 4.24, SE = .22), df = 566, t = -5.86, p < .001. Omnivores' utilitarianism scores on dilemmas that included more animals compared to humans were not significantly different from each other (see, Figure 6).

Figure 3.6: Mean secondary utilitarianism scores of three dietary and ethical lifestyle groups on 5 Dogs vs. 1 Human, 5 Sheep vs. 1 Human and 5 Humans vs. 1 Human moral dilemmas.



Note: H = Human/s, D = Dog/s, S = Sheep

These findings suggest that by using the secondary utilitarianism scores (continuous scores derived from summing the answers from Q2 and Q3 of dilemmas), omnivores favored humans even if humans were fewer in number compared to animals in dilemmas, therefore showing a speciesist attitude pattern again, while vegetarians and vegans did not significantly differ in terms of their secondary utilitarianism scores on four different species-incompatible dilemmas. Even though as a result of the second set of analyses vegetarians did not significantly preserved their speciesist attitude that they showed in the main utilitarianism scores, the pattern was similar to omnivores, while vegans persisted as having species-egalitarian attitudes. In the final analyses, results showed that if there are more animal lives compared to human lives in moral dilemmas, omnivores deviate from their original utilitarian responses, meaning that they show a speciesist attitude toward animals, prioritizing human life over animal life. This pattern was not seen in the responses of either vegetarians or vegans.

4. DISCUSSION

Although work on the morality has been well-documented in the psychology literature, one of the significant and vivid manifestations of moral judgments, dietary and ethical lifestyle, has been neglected. We believed that studying morality via vegans, vegetarians, and omnivores could be helpful platform to understand the underlying process in moral judgments. Moreover, understanding vegan peoples' ethical stance using systematic investigations has an empirical value in the current literature. The questions like how vegan people make ethical judgments, what happens when they face with ethical dilemmas including both human and animals would be promising for testing vegan philosophy arguments. Thus, this study aimed to uncover the factors that could be associated with dietary and ethical lifestyle using previous literature findings and variables. The exploratory part of this study included dietary lifestyle group differences and prosociality, analytical thinking, utilitarianism, moral foundations, and some demographic characteristics. In addition to this, we also investigated some motivational process behind "being vegan and vegetarian" and their relations with moral judgment process. To do this, we developed three new measures: (i) Motivations for Veganism Scale (MfVS), (ii) Cow's Milk, Dairy and Eggs Commitment Scale (CMDECS), and (iii) Vegan Lifestyle Scale (VLS). All of these measures have shown to be reliable and valid psychometric properties. Specifically, we confirmed three-dimensional motivations for being vegan (MfVS). Additionally, a total MfVS score was successful in identifying people's closeness to a vegan lifestyle, and also self-reported state of being a vegan. Vegans had the highest overall motivations while vegetarians also had higher motivations for veganism compared to omnivores in my sample. Also, CMDECS was differentiated all dietary and ethical lifestyle groups as expected, with vegans having the lowest commitment to animal products except meat compared to vegetarians and omnivores, while vegetarians reported lower commitment to animal products except meat compared to omnivores. Finally, VLS was able to differentiate omnivores, vegetarians and vegans as expected, therefore had initial evidence in favor of its validity in measuring behavioral attitudes in the boundaries of a vegan lifestyle. As a result, our first hypothesis was supported by our data and, as expected, vegans had the highest motivations for veganism between the three dietary and ethical lifestyle

groups. In addition, vegetarians had higher motivations in the way of becoming a vegan compared to omnivores.

Our second hypothesis was also largely supported with our data, since three groups of dietary and ethical lifestyles significantly differed in terms of the commitment to consume animal products and maintaining a vegan lifestyle. Specifically, vegans had less animal products commitment compared to vegetarians and omnivores, while vegetarians had less animal product commitment compared to omnivores. Moreover, vegans responded as having higher behavioral attitudes in having a vegan lifestyle, compared to vegetarians and omnivores, whereas vegetarians had higher vegan lifestyle scores compared to omnivores.

Our third hypothesis (H3), including prosociality and Moral Foundations differences was partially supported. It was predicted that vegans were less prosocial toward humans (compared to omnivores), but results suggest that there were no significant differences between omnivores, vegetarians and vegans in terms of prosocial attitudes toward humans. However, as predicted in our third hypothesis, vegans and vegetarians reported more prosocial attitudes toward animals compared to omnivores.

In investigating moral foundations differences, we found that vegans scored more on harm and fairness dimensions, whereas omnivores would score higher on loyalty, authority, and purity dimensions compared to vegans. Vegetarians' stance compared to vegans and omnivores on these dimensions differed for the whole picture. Vegans put higher moral values on giving care to those in need more compared to vegetarians, and vegetarians scored more on this dimension, compared to omnivores. While fairness was more morally valuable for vegans, compared to both vegetarians and omnivores, the latter two did not significantly differ from each other. In the case of authority and loyalty dimensions, vegetarians scored closer to vegans and the difference between them was nonsignificant. Both vegans and vegetarians scored lower on these two dimensions compared to omnivores. Last, on the purity dimension, vegetarians scored closer and were not different from omnivores, meaning that both vegetarians and omnivores scored higher on purity dimension, compared to vegans. Since the pattern that we observed between vegans and omnivores on these five moral foundations were hypothesized to be similar with what previous work showed in the case of political orientation (Graham et al., 2009; Yilmaz et al., 2016). Following previous work on

moral foundations and political orientations (Graham et al., 2009; Yilmaz & Saribay, 2018), our data suggested that vegans responded MFQ questions like liberals (giving weight to care and harm dimensions), whereas omnivores and vegetarians behaved more similar to conservatives (giving weight to 5-dimension). It should be noted that political orientation was controlled in all analyses and thus, it could be proposed that the differences between dietary lifestyle groups might not stem only from the differences they had in their political views. One of the reasons that vegans were more liberal, compared to omnivores and vegetarians is that they decided to be vegan after a long and deep elaboration (regardless of their rationalizations) and this elaboration process about their own dietary and ethical stance came from them being open to new information and discussions.

The fourth hypothesis was partially supported. It was expected that vegetarians and vegans would score higher on analytical thinking, compared to omnivores, but the results revealed that only vegans scored significantly higher compared to omnivores, while vegetarians were in between and were not significantly different from either group. As we know from previous studies, religiosity and analytic thinking have a significant negative correlation (Bahçekapili & Yilmaz, 2017; Cheyne & Pennycook, 2013; Pennycook et al., 2013; Saribay & Yilmaz, 2017), and on the political views spectrum, as we get closer to conservatism, intuitive thinking increases (Talheim et al., 2012; Yilmaz & Saribay, 2016). Therefore, we have controlled these variables in the analyses, revealing dietary and ethical lifestyle differences' unique ability in explaining the significant difference in analytic thinking styles. One of the reasons behind this finding might be due to the using more type 2 processing in the face of problems. Since such as drastic change first in the mind then in behavior is a very difficult task and it is even harder for people to use more of intuitive thinking. More importantly, in the case of veganism, this problem emerges as an ethical problem, and it is causing cognitive dissonance in the first phase and then resolved in favor of a vegan lifestyle. Vegans themselves believe that the vegan position in the face of treatment of animals and dietary habits, is not just more ethical, but more logical (i.e., health and environmental motivations). As a speculation, one can say that transitioning into a vegan lifestyle begins intuitively but should be supported analytically. More research is needed to further understand why vegans had higher analytical thinking scores.

In addition to analytical thinking style, our hypothesis about actively open-minded thinking was also partially supported. Pattern that was expected in the analyses of actively open-minded thinking as a result of group comparisons, analyses would suggest that vegans would be more open-minded compared to vegetarians and also vegetarians would be more open-minded compared to omnivores. Results, however, failed to discriminate vegans and vegetarians in terms of the open-mindedness after controlling for political orientation and religiosity. As aforementioned, for a person to make such a drastic change in their mindset and their lifestyle, including behavior change, one should be open to new ideas and information, thus should be more open-minded. It is even harder for people to change their ethical and moral perspectives since they are influenced heavily by their family, by their group of friends and their society. One should be much more open-minded to be able to even consider such a drastic transition. In addition to this finding, however, it should be noted that the reliability of the Actively Open-Minded Thinking Scale was low for this sample (α = .61). Therefore, it can be said that although there was some preliminary evidence to support the claim that vegans are more open-minded than omnivores, the findings should be carefully interpreted, suggesting replication of this finding via a sound and more reliable measurement.

The fifth hypothesis was rejected due to the nonsignificant dietary and ethical lifestyle group differences in terms of consequentialist thinking via Consequentialist Thinking Scale. All groups, including omnivores, vegetarians and vegans were similar in terms of responses to the items in the Consequentialist Thinking Scale, suggesting no association between dietary and ethical lifestyles and utilitarianist tendencies. Thus, the hypothesis that vegans would have deontology preferences was not supported by our data. This essentially means that being vegan or vegetarian or omnivore was not related to ethical judgment of what is universally right. In other words, their understanding about what is universally right might depends on the equal rights between humans and animals. Opposing our prediction, vegans do not seem likely to embrace a more deontological stance compared to omnivores, thus their vegan philosophy may not be deriving from an ethical standpoint backed by the idea of duty.

In terms of the normative ethics discussion, our sixth hypothesis suggesting that vegans would have more species-egalitarian stance, compared to omnivores was largely supported by the results. By four separate logistic regressions and one the last factor

repeated measures ANOVA, including utilitarianism scores coming from trolley problems as ethical dilemmas yielded significant differences between vegans and omnivores on species-incompatible dilemmas (e.g., saving five dogs rather than one human). In detail, when confronted with dilemmas in which there are more humans to be saved, dietary and ethical lifestyle differences was not predictive of participants' utilitarian judgments. However, when confronted with a dilemma in which there are more animals to be saved, omnivores showed a speciesist attitude. Specifically, regardless of the number of animals in the dilemmas, omnivores wanted to save human lives, while for vegans the species that are included in the dilemmas was not important and they did not deviate from their actual utilitarian tendencies. In other words, omnivores assessed utilities of human beings much higher compared to animals. Thus, the claim of vegan position that they are not speciesists are supported by our data. For vegans, the species of the participants in the ethical dilemmas did not matter as much as it did to omnivores. They simply made up their minds by looking at just the sheer amount of the participants and their species did not matter significantly. But for omnivores, one of the most important information contributing their decision making processes was the participants own species, thus they showed high priority to human life compared to animal life. Therefore, this can be explained by omnivores' speciesist attitudes. Also, because the methodology behind this finding is unique and the probability of any detection of intention is low, the finding could be elaborated as trustworthy and reliable. However, since it's a novel perspective and this piece of research only includes a single study, replications with prospective scientific research is needed. Especially considering these ethical dilemmas might not be realistic for participants, further studies should also use more realistic ethical dilemmas to uncover these questions.

Overall, it seems that people from different dietary and ethical lifestyles have different mindsets about the value of sentient lives, and this was one of the core assumptions of veganism. This study was able to demonstrate for the first time with quasi-experiment design that vegans indeed value other animals as much as humans. Additionally, the way of becoming a vegan is proposed to be very hard, since there are some significant attitude and behavior changes required. There are not many people today which have parents that are vegans, so being a vegan supposedly comes by choice which requires a

significant amount of open-mindedness. Although this study revealed significant group differences in terms of actively open-minded thinking, the reliability of the measure that has been used was low so the direct inference of "vegans are more open-minded" is weak. However, the logic that a person should be more open-minded in order to change his or her behaviors in such depth is a solid one. Additionally, it was demonstrated first in the literature that vegans show more analytic thinking and less intuitive thinking compared to omnivores, and this finding is much more reliable. But, there was only one scale that was trying to measure analytic thinking style and this finding should be replicated with new measures and perhaps novel measurement methods using actual behavioral measurements in real-life settings. Moreover, our data did not suggest causal link between vegans and analytical thinking. We do not know by this study if thinking more analytically is a factor in the way of becoming a vegan or becoming a vegan influences analytic thinking style and making people thinking and elaborating problems more analytically. This is an important issue and should be studied in further studies.

In this study, we developed Motivations for Veganism Scale to understand how different motivations related to diverse concepts such as actively-open minded thinking, analytic thinking style, speciesist attitudes, and moral foundations. However, since there was no variance in the forced-choice motivations question, results should be carefully interpreted. It was expected that different motivations have various relationships with a lot of the variables which this study have included. These motivations of ethical, environmental and health have been demonstrated first in a quantitative manner in this study. This is expected to open up a broader area for psychologist to understand why people are becoming vegan, how can we predict the transition in the way of a vegan lifestyle and how these motivations can be explained. In addition to these implications, we took into consideration environmental motivations of vegans in the first time with this frame. Further studies focusing on environmental and sustainability problems could also benefit and extend these findings.

As expected previously, vegans and vegetarians reported more prosocial intentions toward animals and again this was demonstrated first in this study. Since in order to make a change this significant (transitioning into vegetarianism and/or veganism) a person should feel love and compassion to other animals as well as humans. This was probably the main cause of this finding; vegans and vegetarians feel more love and

more compassion toward animals, compared to omnivores. Construct of prosociality toward animals was developed and it was reliable and valid. But since the measure only had 2 items, it can be improved in future studies. Moreover, further studies should also consider the differences in regard to edible and nonedible animals in a given culture. There could be major differences towards different animals in terms of their perceived "utility".

We also found significant differences on the moral foundations between people who have different dietary and ethical lifestyles. Those findings should be interpreted with caution, because of the psychometric properties of the MFQ. Behind this measurement limitations, the data suggested that vegans gave more importance and relevance on care, compared to both vegetarians and vegans. Since the difference between vegetarianism and veganism is substantial both in terms of philosophy and behaviors related to consumption, this finding can be interpreted easily. Behavioral differences in everyday life between vegetarians and vegans are enormous, since vegans have to refrain from much more products, compared to vegetarians and they proposedly do this because they feel the need to not afflict any harm to the innocent and sentient beings. In terms of fairness, however, vegetarians scored in the middle, not differentiating significantly either from vegans or omnivores. In the perspective of veganism, vegans should refrain from animal products and products that are being tested on animals because it is not fair and just. Animals cannot protect themselves, cannot sign consent forms when included in testing and cannot speak on the behalf of themselves, therefore the perception that using them as test subjects and harming and/or killing them for unnecessary causes being unjust is in conjunction with the finding that vegans regard fairness and justice more important in morality. For the loyalty dimension, vegans scored relatively but insignificantly lower compared to vegetarians and both vegetarians and vegans scored lower compared to omnivores. This could be interpreted as a general mindset in conjunction with the perception of liberty and open-mindedness, the importance of individual perspectives and rights. Vegans and vegetarians differ significantly in terms of their lifestyles compared to omnivores, since starting animal products consumption including meat is not a conscious choice we make. People learn to consume animal products and disregard some animals' lives rather easily but it can be unlearned. For a person to avoid speciesist beliefs and attitudes and regard all sentient life as equals in

terms of moral value and standing (e.g., cows having equal individual rights with humans and killing a cow is as immoral as killing a human being), that person must be able to think that significant deviation from the group is sometimes morally required and we have to think for ourselves if we want to become better people. In terms of authority, the pattern was the same and this could also be explained by the above mentioned rationale. Submission to authority comes with acknowledging and participating past cultural and collective habits, and if a person is able to differentiate himself or herself in this magnitude than that person must be able to question authority, raise concerns and even disobey commands. By looking at anecdotal evidence, most vegans and vegetarians would say that they faced demands of animal product consumption by their superiors in their communities, mostly from their parents as they see vegetarian and vegan consumption patterns are presumably bad for health if sustained in long-term. In the case of purity, vegetarians scored in the middle but not significantly different from either vegans or omnivores. Vegans, however, scored lower compared to omnivores, regarding sanctity and purity as less morally important. However, the concept of purity is in a relationship with intuitive thinking style, since people's explanations when confronted with purity transgressions are more intuitive than analytical. Supporting this, the correlation between CRT and purity score of MFQ, was negatively significant (r = -.22, p = < .001). This significant correlation has an important explanatory power, since omnivores scored more intuitively compared to vegans. Overall, it could be proposed that vegans put less importance on sanctity and purity in terms of morality compared to omnivores.

4.1. LIMITATIONS AND FUTURE DIRECTIONS

This study had several limitations. First of all, hypotheses included five different dietary and ethical lifestyle groups. But since there were not enough participants in each group for the analyses, five groups were merged into three, including omnivores, vegetarians and vegans. Vegan Lifestyle Scale was developed with the expectation that it will be able to differentiate between strict vegetarians/dietary vegans and lifestyle vegans. However, there were only six participants who reported themselves as dietary vegans, thus this estimation was unable to be investigated. Future studies with larger sample sizes may be able to conduct this analysis and answer this question. Additionally, it was

expected that different motivations would interact with dietary and ethical lifestyle groups differently. Specifically, it was expected that for lifestyle vegans, ethical motivations would be more important compared to ethical and environmental motivations, however for dietary vegans, this would not be the case. Again, this estimation was unable to be studied because of the limitations of sample size. Even if we merged some groups to conduct the proposed analyses more adequately and efficiently, the sample sizes in those groups were still considerably low. Therefore, in the upcoming studies, more adequate sample sizes are required in order to replicate the findings in a sound manner.

Group differences between omnivores, vegetarians and vegans on actively open-minded thinking was found to be significant in this study. However, the scale that has been used to measure open-mindedness was moderately reliable, thus in order to understand the group differences on open-mindedness confidently, a more reliable scale should be used. By this way, our finding is expected by the principal researcher to be replicated.

Data were collected through different platforms and through different pathways. Because finding vegans and asking their participations were so hard, we could only use online vegan communities. Specifically, vegans participated the study mostly through Instagram and Facebook via community sampling, whereas most of the omnivores were Psychology undergraduates from several universities in Istanbul, Turkey. This situation presents an important limitation and further studies need to eliminate this diversity in terms of data collection to discard any confusion regarding the validity of the findings.

Furthermore, there were a lot of dropouts because of the time-length of the questionnaire, since it took 40-45 minutes for a person to fill the entirety of the questionnaire. This was a big problem throughout the data collection process and further studies should limit their response numbers to access more participants and keep the participants they already have access.

Finally, again in the data collection process, there was a barrier to collect data from vegans. Main problem was that some of our vegan participants (approximately one in fifth) refused to respond the ethical dilemmas, claiming that both judgments completely unacceptable by them. In order to solve this problem, future researchers can find a different way to measure the speciesist attitudes, or write a detailed explanation before the presentation of dilemmas to the participants about what a dilemma actually means

and how it is very understandable for people to be disheartened by the difficulty of providing an answer, that it is expected and they should provide an answer regardless of their feelings. In our study, this problem caused distrust toward researchers for some prospective vegan participants and this distrust spread like a snowball between their communities, causing difficulties in the data collection process. Finally, to observe actual preference, further studies should use more realistic dilemmas or measure behavioral responses in a specified design.

4.2. CONCLUSIONS

For the first time in the literature, motivations behind veganism have been investigated systematically. As a result, it was shown that there were three core motivations: *ethical*, *environmental* and *health*. Additionally, in order to measure the amount of commitment to animal products except meat, a new scale was developed (and adapted): Cow's Milk, Dairy and Eggs Commitment Scale (CMDECS, adapted from MCS; Piazza & Loughnan, 2014). Finally, a scale was developed to differentiate dietary vegans and lifestyle vegans: Vegan Lifestyle Scale (VLS). This measure included some behavioral intentions except food consumptions that is consistent with the vegan philosophical lifestyle. Another finding from this study was that vegans were found to be thinking more analytically, more open-minded (but this finding is not as reliable as the rest of the findings), their moral perspectives were significantly different on all dimensions of Moral Foundations Theory, compared to omnivores and vegetarians. Omnivores, vegetarians and vegans were not significantly different in terms of their normative ethics, meaning that their utilitarianism scores were not significantly different on two separate measures. Finally, omnivores showed speciesist attitudes, whereas vegans were species-egalitarian (at least in the dilemmas we provided to them). Vegetarians showed similar patterns to vegans but their species-egalitarian attitudes and beliefs were not as clear as vegans. To further understand how vegetarians' stance is in terms of speciesism, new studies with larger sample sizes should be conducted.

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APPENDIX

APPENDIX A: INFORMED CONSENT FORM

Kadir Has Üniversitesi Psikoloji Bölümünden Doç. Dr. Mehmet Harma ve yüksek lisans öğrencisi Yunus Bayramoğlu tarafından yürütülen ve bitirme tezi olarak planlanan bu araştırma projesinde, bireylerin ahlaki yaklaşım ve temelleriyle dindarlık seviyelerinin veganizm ve bunun farklı motivasyonları, vejetaryenlik ve et yeme yaşam stilleriyle benzerlik ve farklılıklarının incelenmesi amaçlanmaktadır.

Araştırmada her soruya vereceğiniz yanıt son derece önemli olduğundan, lütfen her soruyu dikkatle okuyup size en uygun gelen cevabı işaretleyiniz. Ankette yer alan soruların doğru veya yanlış cevabı kesinlikle yoktur.

Bu ankette sizden kimliğinizle ilgili hiçbir bilgi istenmemektedir. Çalışmadan elde edilecek sonuçlar sadece bilimsel amaçlı olarak kullanılacaktır. Ankete katılım tamamen gönüllülük esasına dayanmaktadır. Çalışmada sizi rahatsız eden bir soruyla karşılaşırsanız soruyu boş bırakabilirsiniz. Hiçbir neden vermeksizin çalışmayı istediğiniz zaman bırakabilirsiniz.

Çalışma hakkında bilgi almak için; Psikoloji Bölümü öğretim görevlilerinden Doç. Dr. Mehmet Harma (mehmet.harma@khas.edu.tr, +90 (212) 533 65 32 / dahili 1623) veya yüksek lisans öğrencisi Yunus Bayramoğlu (ybayramoglu93@gmail.com) ile iletişim kurabilirsiniz. Yardımlarınız ve katılımınız için teşekkür ederiz.

Araştırmayla ilgili bilgilendirmeyi okudum ve katılım için onayımı veriyorum.

APPENDIX B: DEMOGRAPHICS

1. Cinsiyetiniz?
    - Kadın
    - Erkek
    - Diğer / Belirtmek istemiyorum
2. Doğum yılınız? (Open-Ended)
3. En son mezun olduğunuz okul aşağıdakilerden hangisidir?
    - İlköğretim
    - Ortaöğretim
    - Lise
    - Yüksekokul (2 yıllık)
    - Üniversite (4 yıllık)
    - Yüksek Lisans
    - Doktora
4. Politik görüşünüz aşağıdaki kategorilerden hangisine daha yakındır?
    - Milliyetçi
    - Sosyalist
    - Sosyal Demokrat
    - Muhafazakâr
    - Apolitik
    - Diğer (Lütfen belirtiniz):
    - Belirtmek istemiyorum
5. Seçtiğiniz politik görüşünüzü nerede konumlandırırsınız?

    Aşırı sol 1 – 7 Aşırı sağ

6. Aşağıdakilerden hangisi dini görüşünüzü en doğru şekilde tanımlamaktadır?
    - Müslüman (Sünni)
    - Müslüman (Alevi)
    - Hristiyan
    - Musevi
    - Deist (Tanrıya inanıyorum fakat herhangi bir dine inanmıyorum)

- Agnostik
- Ateist
- Diğer (Lütfen Belirtiniz)
- Belirtmek istemiyorum

7. Kendinizi dindar biri olarak değerlendirir misiniz?

Hiç dindar değilim 1 – 7 Çok dindarım

8. Etnisiteniz nedir?
    - Türk
    - Kürt
    - Arap
    - Yahudi
    - Ermeni
    - Rum
    - Diğer (Lütfen Belirtiniz)
    - Belirtmek istemiyorum
9. Aşağıdakilerden hangisi diyet düzeninizi/yaşam tarzınızı en doğru şekilde temsil etmektedir?
    - Hepçil: Damak tadı, tıbbi (alerji, intolerans gibi) ve/veya dini gerekçelerle tüketmediklerim dışında hayvansal ürünleri tüketirim.
    - Yarı veya kısmi vejetaryen: Birazdan sıralananların tamamını değil ama bir kısmını tüketirim: Kırmızı et (dana, koyun vb.), domuz, kümes hayvanı, balık ve/veya su ürünleri. Yumurta ve süt ürünlerini de tüketirim.
    - Vejetaryen: Asla kırmızı et (dana, koyun vb.), domuz, kümes hayvanı, balık veya su ürünü tüketmem, fakat yumurta ve/veya süt ürünü tüketebilirim.
    - Katı vejetaryen veya diyet olarak vegan: Kırmızı et (dana, koyun vb.), domuz, kümes hayvanı, balık, su ürünleri, yumurta, süt ürünleri veya diğer hayvansal ürünleri (jelatin, kazein gibi) olmak üzere herhangi bir hayvansal ürünü asla tüketmem.

- Yaşam tarzı olarak vegan: Herhangi bir hayvansal ürünü asla tüketmem, ve yiyecek olmayan hayvansal ürünlerin ve/veya hayvanlar üzerinde denenen ürünlerin bir kısmından veya tamamından kaçınırım.

APPENDIX C: COGNITIVE REFLECTION TEST

1. Bir beyzbol sopası ve bir beyzbol topu 1.10 TL tutuyor. Beyzbol sopası, beyzbol topundan 1.00 TL daha pahalı. Buna göre beyzbol topunun fiyatı nedir? (kuruş cinsinden)

   Intuitive Answer: 10 kuruş – Analytic Answer: 5 kuruş

2. 5 makine 5 parçayı 5 dakikada üretiyor. Buna göre 100 makine 100 parçayı kaç dakikada üretir?

   Intuitive Answer: 100 dakika - Analytic Answer: 5 dakika

3. Bir gölün belli bir alanı nilüfer yapraklarıyla kaplı. Bu alanın büyüklüğü her gün iki katına çıkmaktadır. 48 günde bu alan gölün tamamını kapladığına göre, kaç günde gölün yarısını kaplar?

   Intuitive Answer: 24 gün – Analytic Answer: 47 gün

APPENDIX D: MOTIVATIONS FOR VEGANISM SCALE

Completely False 1 – 7 Completely True

Ethical

1. I have chosen (or thinking to choose) a vegan lifestyle because of ethical reasons.
2. I think that consuming or using animal products are wrong because animals are not our commodities.
3. I try not to contribute to the profit of companies and brands that cause animal suffering because it is not right.
4. Animals are on this earth for our use and we should be able to use them how we like, even if they get hurt in the process. (R)

Health

1. I have chosen (or thinking to choose) a vegan lifestyle because of health reasons.
2. Following a plant-based diet and avoiding animal products are better for my health.
3. I thought that if I would give up animal products I would be much more healthier and therefore I became/thinking to become a vegan.
4. I need meat and animal products (e.g., cow's milk, cheese and other dairy products, egg etc.) to be healthy and I need to keep eating them to become healthier. (R)

Environment

1. I have chosen (or thinking to choose) a vegan lifestyle because of environmental reasons.
2. Giving up meat and animal products is reducing my carbon footprint on this planet and serve to protect our environment.
3. A vegan lifestyle will help us immensely to reduce water, air and earth pollution and therefore protect and save the environment for our future generations.

4. If all humans were to give up meat and animal products the animals would be all over the place, crippling our society and economy, therefore we need to keep consuming animal products. (R)

Randomized Scale

1. I have chosen (or thinking to choose) a vegan lifestyle because of environmental reasons.
   Çevresel sebeplerle vegan yaşam tarzını seçtim (veya seçmeyi düşünüyorum).
2. If all humans were to give up meat and animal products the animals would be all over the place, crippling our society and economy, therefore we need to keep consuming animal products. (R)
   Eğer insanlar eti ve hayvansal ürünleri bıraksaydı hayvanlar her yere dolar, toplumumuz ve ekonomimiz sıkıntıya girerdi. Bu sebeple hayvansal ürünler tüketmeye devam etmeliyiz. (R)
3. I try not to contribute to the profit of companies and brands that cause animal suffering because it is not right.
   Hayvanların acı çekmesine neden olan şirketlerin ve markaların kârlarına katkı sunmamaya çalışıyorum çünkü bu doğru değil.
4. Following a plant-based diet and avoiding animal products are better for my health.
   Bitki temelli bir diyeti takip etmek ve hayvansal ürünlerden kaçınmak sağlığım için daha iyi.
5. I need meat and animal products (e.g., cow's milk, cheese and other dairy products, egg etc.) to be healthy and I need to keep eating them to become healthier. (R)
   Ete ve diğer hayvansal ürünlere (inek sütü, peynir ve diğer süt ürünleri, yumurta gibi) sağlıklı olmak için ihtiyacım var, ve sağlıklı kalmak için bunları tüketmeye devam etmeliyim.
6. A vegan lifestyle will help us immensely to reduce water, air and earth pollution and therefore protect and save the environment for our future generations.
   Vegan bir yaşam tarzı su, hava ve toprak kirliliğini düşürme konusunda devasa

bir yardım olacak ve gelecek kuşaklarımız için çevrenin korunmasına yol açacak.

7. I have chosen (or thinking to choose) a vegan lifestyle because of health reasons.
   Sağlık gerekçesiyle vegan yaşam tarzını seçtim (veya seçmeyi düşünüyorum).
8. Giving up meat and animal products will reduce my carbon footprint on this planet and serve to protect our environment.
   Et ve hayvansal ürünleri bırakmam bu gezegendeki karbon ayak izimi azaltacak ve çevremizin korunmasına hizmet edecek.
9. I have chosen (or thinking to choose) a vegan lifestyle because of ethical reasons.
   Etik gerekçelerle vegan yaşam tarzını seçtim (veya seçmeyi düşünüyorum).
10. Animals are on this earth for our use and we should be able to use them how we like, even if they get hurt in the process. (R)
    Hayvanlar bu dünyada bizim kullanımımız için varlar ve bu süreçte zarar görseler dahi onları istediğimiz gibi kullanabilmeliyiz. (R)
11. I thought that if I would give up animal products I would be much more healthier and therefore I became/thinking to become a vegan.
    Eğer hayvansal ürünleri bırakırsam çok daha sağlıklı olacağımı düşündüm bu sebeple vegan oldum/vegan olmayı düşünüyorum.
12. I think that consuming or using animal products are wrong because animals are not our commodities.
    Bence hayvansal ürünleri tüketmek veya kullanmak yanlış çünkü hayvanlar bizim malımız değil.

Forced Choice:

If you had to pick one, which of these would be the most important motivation for you in the path of becoming a vegan?
Eğer birini seçmek zorunda kalsaydınız, aşağıdaki seçeneklerden hangisi vegan olma yolunda sizin için en önemli motivasyon olurdu? (Bu soruyu cevaplamak için vegan olmak zorunda değilsiniz)

Etik – Sağlık – Çevresel

Ethical – Health - Environmental

APPENDIX E: MEAT COMMITMENT SCALE

1. Etsiz yemek yemek istemiyorum.
2. Yemek seçerken fiilen her zaman etli seçeneği seçiyorum.
3. Eti bırakmayı hayal edemiyorum.
4. Et yemeye kararlıyım.
5. Çoğu öğünün en güzel kısmı etli yemek olan kısım.
6. Et yemeyi asla bırakmam.
7. Bir yemekteki eti başka bir şeyle değiştirmeyi hayal edemiyorum.

Hiç Katılmıyorum 1 – 5 Tamamen Katılıyorum

APPENDIX F: COW'S MILK, DAIRY AND EGGS COMMITMENT SCALE

1. I dont want to eat meals without either cow's milk, dairy, eggs or sauces using these ingredients.
   İnek sütü, süt ürünü, yumurta veya bu malzemelerle yapılan sosların kullanılmadığı yemekleri, bunlarla yapılmamış olan tatlıları ve hamur işlerini yemek istemiyorum.
2. When choosing food, I virtually always select the options that include cow's milk, dairy, eggs or sauces using these ingredients.
   Yemek, tatlı ve hamur işi seçerken fiilen her zaman inek sütü, süt ürünü, yumurta veya bu malzemelerle yapılan seçeneği seçiyorum.
3. I can't imagine giving up cow's milk, dairy and eggs.
   İnek sütünü, süt ürünlerini ve yumurtayı bıraktığımı hayal edemiyorum.
4. I am committed to consume cow's milk, dairy and eggs.
   İnek sütü, süt ürünleri ve yumurta tüketmeye kararlıyım.
5. The best part of most meals is the dairy and eggs portion.
   Çoğu öğünün en güzel kısmı süt ürünü ve yumurtanın olduğu kısım.
6. I would never give up cow's milk, dairy and eggs.
   İnek sütünü, süt ürünlerini ve yumurtayı asla bırakmam.
7. I cannot imagine substituting dairy and eggs from a meal, a desert or a pastry.
   Bir yemekteki, tatlıdaki veya hamur işindeki süt ürünlerini ve yumurtayı başka bir şeyle değiştirmeyi hayal edemiyorum.

Hiç Katılmıyorum 1 – 5 Tamamen Katılıyorum

APPENDIX G: VEGAN LIFESTYLE SCALE

1. When I need any items related to personal care (e.g., deodorants, shower gel, shampoo, perfume or toothpaste), I choose to buy products from brands that avoid animal testing.
2. I always buy products that are cruelty-free.
3. When I need to buy clothing, I do not choose to buy any items that are made from animal skin, fur or any other products causing harm to animals.
4. When I need to buy furniture, I do not choose to buy any items that are made from animal skin, fur or any other products causing harm to animals.

Vegan Yaşam Tarzı Ölçeği

1. Kişisel bakımla alakalı bir şeye (deodorant, duş jeli, şampuan, parfüm, diş macunu gibi) ihtiyaç duyduğumda, hayvanlar üzerinde test yapmayan markalardan satın almayı seçerim.
2. Her zaman hayvanlara karşı zulüm içermeyen (cruelty-free) ürünleri satın alırım.
3. Giyecek almam gerektiğinde, hayvan derisi, kürkü gibi hayvanlara zararı olan ürünleri almayı tercih etmem.
4. Mobilya almam gerektiğinde, hayvan derisi, kürkü gibi hayvanlara zararı olan ürünleri almayı tercih etmem.

Hiç Katılmıyorum 1 – 5 Tamamen Katılıyorum

APPENDIX H: CONSEQUENTIALIST THINKING SCALE

1. Aşağıdaki ifadelerden hangisi öldürme konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Birini öldürmek ahlâken asla hoş görülebilir değildir.
    - Eğer birini öldürmek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişiyi öldürmek ahlâken hoş görülebilir.
    - Eğer birini öldürmek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişiyi öldürmek ahlâken zorunludur.
2. Aşağıdaki ifadelerden hangisi yardımlı intihar veya gönüllü ötenazi konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Birinin kendi hayatını sonlandırmasına yardım etmek ahlâken asla hoş görülebilir değildir.
    - Eğer birinin kendi hayatını sonlandırmasına yardım etmek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişinin kendi hayatını sonlandırmasına yardım etmek ahlâken hoş görülebilir.
    - Eğer birinin kendi hayatını sonlandırmasına yardım etmek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişinin kendi hayatını sonlandırmasına yardım etmek ahlâken zorunludur.
3. Aşağıdaki ifadelerden hangisi kürtaj konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Kürtaj olmak ahlâken asla hoş görülebilir değildir.
    - Eğer kürtaj olmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman kürtaj olmak ahlâken hoş görülebilir.
    - Eğer kürtaj olmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman kürtaj olmak ahlâken zorunludur.
4. Aşağıdaki ifadelerden hangisi işkence konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Birine işkence etmek ahlâken asla hoş görülebilir değildir.
    - Eğer işkence kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman birine işkence etmek ahlâken hoş görülebilir.

- Eğer işkence kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman birine işkence etmek ahlâken zorunludur.

5. Aşağıdaki ifadelerden hangisi yalan söylemek konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Yalan söylemek ahlâken asla hoş görülebilir değildir.
    - Eğer yalan söylemek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman yalan söylemek ahlâken hoş görülebilir.
    - Eğer yalan söylemek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman yalan söylemek ahlâken zorunludur.
6. Aşağıdaki ifadelerden hangisi çalmak (hırsızlık) konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Çalmak ahlâken asla hoş görülebilir değildir.
    - Eğer çalmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman çalmak ahlâken hoş görülebilir.
    - Eğer çalmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman çalmak ahlâken zorunludur.
7. Aşağıdaki ifadelerden hangisi ensest konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Bir aile üyesiyle cinsel ilişkiye girmek ahlâken asla hoş görülebilir değildir.
    - Eğer ensest kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman bir aile üyesiyle cinsel ilişkiye girmek ahlâken hoş görülebilir.
    - Eğer ensest kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman bir aile üyesiyle cinsel ilişkiye girmek ahlâken zorunludur.
8. Aşağıdaki ifadelerden hangisi yamyamlık konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Yamyamlık ahlâken asla hoş görülebilir değildir.
    - Eğer yamyamlık kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman ölü bir kişinin etini yemek ahlâken hoş görülebilir.
    - Eğer yamyamlık kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman ölü bir kişinin etini yemek ahlâken zorunludur.

9. Aşağıdaki ifadelerden hangisi ihanet konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Birine ihanet etmek ahlâken asla hoş görülebilir değildir.
    - Eğer birine ihanet etmek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişiye ihanet etmek ahlâken hoş görülebilir.
    - Eğer birine ihanet etmek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişiye ihanet etmek ahlâken zorunludur.
10. Aşağıdaki ifadelerden hangisi kandırmak konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Birini kandırmak ahlâken asla hoş görülebilir değildir.
    - Eğer birini kandırmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişiyi kandırmak ahlâken hoş görülebilir.
    - Eğer birini kandırmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişiyi kandırmak ahlâken zorunludur.
11. Aşağıdaki ifadelerden hangisi kötü niyetli dedikodu yapmak konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Biri hakkında dedikodu yapmak ahlâken asla hoş görülebilir değildir.
    - Eğer dedikodu kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişi hakkında dedikodu yapmak ahlâken hoş görülebilir.
    - Eğer dedikodu kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman o kişi hakkında dedikodu yapmak ahlâken zorunludur.
12. Aşağıdaki ifadelerden hangisi verilen sözü bozmak konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Bir sözü bozmak ahlâken asla hoş görülebilir değildir.
    - Eğer bir sözü bozmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman bir sözü bozmak ahlâken hoş görülebilir.
    - Eğer bir sözü bozmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman bir sözü bozmak ahlâken zorunludur.
13. Aşağıdaki ifadelerden hangisi yasayı çiğnemek konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Yasayı çiğnemek ahlâken asla hoş görülebilir değildir.

- Eğer yasayı çiğnemek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman yasayı çiğnemek ahlâken hoş görülebilir.
- Eğer yasayı çiğnemek kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman yasayı çiğnemek ahlâken zorunludur.

14. Aşağıdaki ifadelerden hangisi vatana ihânet konusundaki duruşunuzu en doğru şekilde yansıtmaktadır?
    - Ülkeye ihânet etmek veya hükümet yetkililerine karşı çıkmak ahlâken asla hoş görülebilir değildir.
    - Eğer ülkeye ihânet etmek veya hükümet yetkililerine karşı çıkmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman ülkeye ihânet etmek veya hükümet yetkililerine karşı çıkmak ahlâken hoş görülebilir.
    - Eğer ülkeye ihânet etmek veya hükümet yetkililerine karşı çıkmak kötüden ziyade daha iyi sonuçlara yol açacaksa, o zaman ülkeye ihânet etmek veya hükümet yetkililerine karşı çıkmak ahlâken zorunludur.

APPENDIX I: PROSOCIALITY MEASURES

While answering the question below, please keep in mind that your answers should add up to a total of 100%.

If you were to win 300.000 US Dollars from a lottery, what percent of it you would spend on yourself and your relatives, and what percent you would spend on others that you do not know, for helping them (donating to charity, giving scholarships to students, build a school, etc.)?

Scoring: Percentage the participant reports to spend on others provides his or her prosocial intention score.

Please rate the activities below according to your likelyhood to act on them in the following month.

1-7 Likert

1. Assume that a friend that you had a fight last week is throwing a party at his/her place. How likely it is for you to participate?
2. Assume that in your school there is somebody who's parents went bankrupt. How likely is it for you to donate to contribute the students' school expenses? **(Prosociality toward humans)**
3. Assume that there has been an earthquake centered nearby which also affected your own city. How likely is it for you to go to the Red Cross (or any other center) voluntarily and donate blood? **(Prosociality toward humans)**
4. Assume that you have won a vacation to a foreign country through a lottery in a shopping mall. How likely is it for you to accept it and go to this vacation?
5. Assume that people in your neighborhood are organizing a project of traveling street to street distributing food to hungry animals. How likely is it for you to participate? **(Prosociality toward animals)**
6. Assume that a movie that you were waiting just came to theater. Before an important exam or event, how likely is it for you to go to that movie?
7. Assume that a group of people in your own city or district are organizing a demonstration against the animal cruelty taking place in waterparks and

circuses. How likely is it for you to participate? **(Prosociality toward animals: new addition)**

APPENDIX J: SPECIES-COMPATIBLE ETHICAL DILEMMAS (TROLLEY PROBLEM)

5 Humans vs. 1 Human:

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş insanın ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş kişi yerine bir kişiyi öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir kişi pahasına beş kişiyi kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş insanı kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş insanı kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş insanı kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.
- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.
- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.
- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.

- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

5 Dogs vs. 1 Dog:

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş köpeğin ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş köpek yerine bir köpeği öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir insan pahasına beş köpeği kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş köpeği kurtarıp bir köpeğin ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş köpeği kurtarıp bir köpeğin ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş köpeği kurtarıp bir köpeğin ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.
- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.

- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.
- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.
- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

5 Sheep vs. 1 Sheep:

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş koyunun ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş koyun yerine bir koyunu öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir koyun pahasına beş koyunu kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş koyunu kurtarıp bir koyunun ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş koyunu kurtarıp bir koyunun ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş koyunu kurtarıp bir koyunun ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.
- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.
- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.
- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.
- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

Scoring: Answers to Q1 provides the *primary utilitarianism score*. Summed scores of the answers to Q2 and Q3 provides the *secondary utilitarianism score*. Q2 score minus Q3 score provides *moral minimalism score*.

APPENDIX K: SPECIES-INCOMPATIBLE ETHICAL DILEMMAS (TROLLEY PROBLEM)

5 Humans vs. 1 Dog:

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş insanın ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş kişi yerine bir köpeği öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir köpek pahasına beş kişiyi kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş insanı kurtarıp bir köpeğin ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş insanı kurtarıp bir köpeğin ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş insanı kurtarıp bir köpeğin ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.
- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.
- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.
- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.

- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

5 Dogs vs. 1 Human:

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş köpeğin ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş köpek yerine bir insanı öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir insan pahasına beş köpeği kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş köpeği kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş köpeği kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş köpeği kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.
- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.
- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.

- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.
- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

5 Humans vs. 1 Sheep

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş insanın ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş insan yerine bir koyunu öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir koyun pahasına beş insanı kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş insanı kurtarıp bir koyunun ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş insanı kurtarıp bir koyunun ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş insanı kurtarıp bir koyunun ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.
- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.

- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.
- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.
- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

5 Sheep vs. 1 Human:

Şimdi size bir ikilem sunacağız. Bundan sonraki 6 soruyu bu ikileme göre cevaplayınız.

Kontrolden çıkmış bir tramvay, şu an bulunduğu yolda devam ettiği takdirde beş koyunun ölümüne yol açacak. Onları kurtarmanın tek yolu tramvayı beş koyun yerine bir insanı öldüreceği alternatif bir yola yöneltecek olan düğmeye basmak. Bir insan pahasına beş koyunu kurtarmak için tramvayın yolunu değiştirmeli misiniz?

Q1: Beş koyunu kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken doğru mudur?

- Evet, bu doğru.
- Hayır, bu yanlış.

Q2: Beş koyunu kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken kabul edilebilir midir?

Asla kabul edilemez 1 – 5 Tamamen kabul edilebilir

Q3: Beş koyunu kurtarıp bir insanın ölümüne sebep olmak için tramvayın yolunu değiştirmek ahlâken zorunlu mudur?

Asla zorunlu değildir 1 – 5 Tamamen zorunludur

Q4: Neden böyle düşündüğünüzü kısaca açıklayabilir misiniz? (Open-Ended)

Q5: Aşağıdaki seçeneklerden hangisi bu yönde karar vermenize yardımcı olan düşünceye en yakın olanıdır?

- Verdiğim kararda ahlâki gerekçelerin çok da bir önemi olmadı.

- Olayların doğal akışının sebep olacağı zarara bakılmaksızın, olaylara müdahale etmek suretiyle zarara yol açmak ahlâken sakıncalıdır.
- Ahlâklı davranış en yüksek sayıda varlığın iyiliğini amaçlayan davranıştır.
- Amacı ne olursa olsun masum bir varlığa zarar vermek ahlâken kabul edilemez, çünkü bu temel ahlâki kurallara aykırıdır.
- Masum bir varlığa kasten zarar veren biri erdemli bir kişi olamaz.

Q6: Bu ikilem ile ilgili düşünüp karar vermek sizin için ne kadar zor oldu?

Hiç zor olmadı 1 – 5 Çok zor oldu

Scoring: Answers to Q1 provides the *primary utilitarianism score*. Summed scores of the answers to Q2 and Q3 provides the *secondary utilitarianism score*. Q2 score minus Q3 score provides *moral minimalism score*.

APPENDIX L: MORAL FOUNDATIONS QUESTIONNAIRE

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)

[1] = not very relevant

[2] = slightly relevant

[3] = somewhat relevant

[4] = very relevant

[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

_____1. Whether or not someone suffered emotionally

_____2. Whether or not some people were treated differently than others

_____3. Whether or not someone's action showed love for his or her country

_____4. Whether or not someone showed a lack of respect for authority

_____5. Whether or not someone violated standards of purity and decency

_____6. Whether or not someone was good at math

_____7. Whether or not someone cared for someone weak or vulnerable

_____8. Whether or not someone acted unfairly

_____9. Whether or not someone did something to betray his or her group

_____10. Whether or not someone conformed to the traditions of society

_____11. Whether or not someone did something disgusting

_____12. Whether or not someone was cruel

_____13. Whether or not someone was denied his or her rights

_____14. Whether or not someone showed a lack of loyalty

_____15. Whether or not an action caused chaos or disorder

_____16. Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:

[0]	[1]	[2]	[3]	[4]	[5]
Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

_____17. Compassion for those who are suffering is the most crucial virtue.

_____18. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

_____19. I am proud of my country's history.

_____20. Respect for authority is something all children need to learn.

_____21. People should not do things that are disgusting, even if no one is harmed.

_____22. It is better to do good than to do bad.

_____23. One of the worst things a person could do is hurt a defenseless animal.

_____24. Justice is the most important requirement for a society.

_____25. People should be loyal to their family members, even when they have done something wrong.

_____26. Men and women each have different roles to play in society.

_____27. I would call some acts wrong on the grounds that they are unnatural.

_____28. It can never be right to kill a human being.

_____29. I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.

_____30. It is more important to be a team player than to express oneself.

_____31. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

_____32. Chastity is an important and valuable virtue.

To score the MFQ yourself, you can copy your answers into the grid below. Then add up the 6 numbers in each of the five columns and write each total in the box at the bottom of the column. The box then shows your score on each of 5 psychological "foundations" of morality. Scores run from 0-30 for each foundation. (Questions 6 and 22 are just used to catch people who are not paying attention. They don't count toward your scores).

Question #	Your Response	Question #	Your Response	Question #	Your Response	Question #	Your Response	Question #	Your Response	Question #	Your Response
1		2		3		4		5		6	
7		8		9		10		11			
12		13		14		15		16			
17		18		19		20		21		22	
23		24		25		26		27			
28		29		30		31		32			
	Harm / Care		Fairness / Reciprocit		In-group/ Loyalty		Authority / Respect		Purity / Sanctity		

APPENDIX M: ACTIVELY OPEN-MINDED THINKING SCALE

1. Geçmiş inançları terk etmek iyi karakterin bir göstergesidir.
2. İnsanlar daima inançlarına ters düşen kanıtları göz önünde tutmalıdırlar.
3. İnanışlar yeni bilgi veya kanıtlara göre sürekli gözden geçirilmelidir.
4. Fikrini değiştirmek güçsüzlüğün bir göstergesidir.
5. Sezgi karar vermede en iyi rehberdir.
6. Karşı kanıt sunulsa bile inanışlarda sebat etmek(direnmek) önemlidir.
7. Kanıtlar birisinin yerleşik inançlarıyla çatıştığında kişi kanıta itibar etmemelidir.

Kesinlikle Katılmıyorum 1 – 5 Kesinlikle Katılıyorum

APPENDIX N: DEBRIEFING FORM

Bireylerin ahlaki yaklaşım ve temelleriyle dindarlık seviyelerinin ve türlerinin veganizm ve bunun farklı motivasyonları, vejetaryenlik ve et yeme davranışı ile benzerlik ve farklılıklarının incelenmesi amaçlandığı, Kadir Has Üniversitesi Psikoloji Bölümünden Doç. Dr. Mehmet Harma ve yüksek lisans öğrencisi Yunus Bayramoğlu tarafından yürütülen bu araştırma projesine katılımınız için en içten teşekkürlerimizi sunarız.

Bu çalışma için sizden birkaç adet ölçek doldurulmanız istendi. Doldurulan ölçekler bireyleri vegan olmaya yönelten motivasyonlar, vegan bir yaşam tarzına uyulma seviyesi, toplum yanlısı tutum ve davranış (prososyallik), dindarlığı ve bunun farklı tür ve bu türlerin seviyeleri ve normatif etik anlayışı gibi değişkenleri ölçmüştür. Tamamen bireyden bağımsız ve anonim bir şekilde değerlendirilecek bu veriler ışığında, yukarıda bahsedilen değişkenler arasındaki ilişkiler sorgulanacak, ve veganizm konusuna farklı yaklaşan insanlar arasındaki ahlaki ve dini benzerlik ve farklar ele alınacaktır.

Araştırmamıza katılımınız ve ayırdığınız zaman için tekrar teşekkür ederiz.

Yunus Bayramoğlu
Doç. Dr. Mehmet Harma
Kadir Has Üniversitesi Psikoloji Bölümü

CURRICULUM VITAE

YUNUS BAYRAMOĞLU

E-mail: yunusb@uab.edu

Current Lab: https://corelabsite.wordpress.com/people

EDUCATION

Kadir Has University, Istanbul, Turkey

Master of Arts – Social and Health Psychology (with Thesis, 100% English)

Full Scholarship

September 2017 – June 2019

GPA: 3.94

Yeditepe University, Istanbul, Turkey

Bachelor's Degree in Psychology, June 2017 (100% English)

GPA: 3.04

Cağaloğlu Anatolian High School, Istanbul, Turkey

May 2012

PUBLICATIONS

Bayramoglu, Y., Harma, M., & Yilmaz, O. (2018). The Relationship Between Attachment to God, Prosociality, and Image of God. *Archive for the Psychology of Religion, 40*, 202-224. doi:10.1163/15736121-12341356 (SSCI)

PRESENTATIONS

Bayramoglu, Y., Tosyalı, A.F., Aktaş, B., & Harma, M. (2018, November). *The Relationship between heart rate variability and heart rate harmony; and perceived partner responsiveness, couples' relationship harmony and relationship satisfaction.* Oral session presented at the 20th meeting of Turkish Psychologists Association Congress, Ankara.

Tosyalı, A.F., Aktaş, B., Bayramoglu, Y., & Harma, M. (2018, November). *The Relationship between perceived partner responsiveness and emotion regulation between partners; and general health states of individuals.* Poster session presented at the 20th meeting of Turkish Psychologists Association Congress, Ankara.

Aktaş, B., Tosyalı, A.F., Bayramoglu, Y., & Harma, M. (2018, November). *A new suggestion of methodology in relationship studies: Investigating voice parameters*. Poster session presented at the 20th meeting of Turkish Psychologists Association Congress, Ankara.

Yilmaz, O. & Bayramoglu, Y. (2017, May). *The Mediating Role of the Level of Psychopathy between the Perception of God's Forgiveness and Prosociality.* Poster session presented at the annual meeting of Işık Savaşır Clinical Psychology Symposium, Ankara.

WORK

Teaching Assistant, Kadir Has University, Department of Psychology, Istanbul, Turkey (Spring 2019)

- Worked as a Teaching Assistant for Advanced Research Methods and Statistics II (Psychology, B.A. Class) of Asst. Prof. Sezin Öner, in Spring 2019 semester.

Teaching Assistant, Kadir Has University, Department of Psychology, Istanbul, Turkey (Fall 2018)

- Worked as a Teaching Assistant for Advanced Research Methods and Data Analysis (PSY501; Psychology, M.A. Class) of Assoc. Prof. Mehmet Harma, in Fall 2018 semester.

Research Assistant (TUBITAK Scholarship Holder), Communication and Relationships Research Laboratory (CoReLab), Kadir Has University, Department of Psychology, Istanbul, Turkey (May 2018 – July 2019)

- Worked as a Research Assistant in Communication and Relationships Research Laboratory (CoReLab), Directed by Assoc. Prof. Mehmet Harma
- With the Code of 215K187 with TUBITAK's support, project aims to investigate the attachment and relationship development process of romantic couples which are recently started their relationship (< 1 year).
- Worked in every stage of the process, from data collection in the laboratory with Audio, Video, PPG (Heart Rate Variability) and Electrodermal Activity (Galvanic Skin Response) recordings using Biopac equipments, to analyses and to help writing necessary developmental reports to TUBITAK for their review of the research process.

Teaching Assistant, Kadir Has University, Department of Psychology, Istanbul, Turkey (Spring 2018)

- Worked as a Teaching Assistant for Professional Conduct and Ethics (PSY304; Psychology, B.A. Class) of Prof. M. Rita Krespi, in Spring 2018 semester.

Departmental Assistant, Kadir Has University, Department of Psychology, Istanbul, Turkey (Fall 2017 - Still)

- Attended several mid-term and final exams as observer.
- Expected to work for a maximum amount of 10 hours per month, as a requirement of full scholarship.

RESEARCH

Kadir Has University, Department of Psychology, Istanbul, Turkey, November 2018

- **Master's Thesis**: Humans vs. Animals: A Contemporary Moral Perspective Toward Dietary Lifestyles.
- Under the supervision of Assoc. Prof. Mehmet Harma, formulated a study including the possible relationships between Dietary Lifestyles including Omnivorism, Vegetarianism and Veganism and Moral Foundations, Normative Ethics and Prosociality.
- Master's Thesis has been defended.

Kadir Has and Doğuş Universities, Departments of Psychology, Istanbul, Turkey, March – January 2017

- With helps and supports of PhD Candidate Onurcan Yılmaz and Prof. İ. Ercan Alp, and in collaboration with PhD Candidate Onurcan Yılmaz from Doğuş University, Department of Psychology, and Assoc. Prof. Mehmet Harma, from Kadir Has University, Department of Psychology, formed several hypothesis consistent with the Attachment to God Theory.
- Translated Attachment to God Inventory, created by Beck and McDonald (2003) from English to Turkish with PhD Candidate Onurcan Yılmaz and Assoc. Prof. Mehmet Harma.
- As a result, the paper is accepted for publication in the *Archive of the Psychology of Religion*.

Yeditepe University, Department of Psychology, Istanbul, Turkey, May 2017

- Participated the Experimental Psychology Class of Asst. Prof. Daniela Schulz as an enrolled student.
- Created and administrated an experiment in the area of Social-Evolutionary Psychology, assessing if opposite-sex members' presence in the environment would affect the competitive behavior between same-sex members.
- No significant group differences were found due to limitations of sample size.
- A promising behavioral measure is created in order to assess competitive behavior.

Yeditepe University, Department of Psychology, Istanbul, Turkey, March 2017

- Participated the Research Class of Asst. Prof. Yasemin Sohtorik İlkmen as an enrolled student.
- Applied several clinical neuropsychological tests to 23 people within different age groups and educational background for Asst. Prof. Y.S. İlkmen's own standardization research project.

Yeditepe University, Department of Psychology, Istanbul, Turkey, October 2016

- Participated the Research Class of Asst. Prof. Sevda Numanbayraktaroğlu as an enrolled student.
- Used participating observation research method and participated daily livings of a family, played with the child, observed his interactions with his parents and collected data about them.
- Took voice recordings and made selective transcriptions. Wrote a paper for the class' final project about the research and his findings afterwards.

Yeditepe and Doğuş Universities, Departments of Psychology, Istanbul, Turkey, October 2015

- Turned his class' research project into a sound one with the helps of Ph.D. Candidate Onurcan Yılmaz and Asst. Prof. Hasan G. Bahçekapılı.
- Formulated several Likert Scale measures for assessing the belief in the Islamic form of Repentance and God's Forgiveness, Religious Belief and Religiosity.
- As a result of the research project, no significant relationships were found for publication.

Yeditepe University, Department of Psychology, Istanbul, Turkey, October 2015

- Participated the Research Class of Asst. Prof. Mari Ito-Alptürer as an enrolled student.
- Formulated a hypothesis on the Islamic Form of Repentance and its possible relationships with anxiety levels and inconsistencies between certain morality related attitudes and behaviors.
- Conducted a sound research after the fact, with helps of Ph.D. Candidate Onurcan Yılmaz and Asst. Prof. Hasan G. Bahçekapılı.

Yeditepe University, Department of Psychology, Istanbul, Turkey, February 2013

- Participated the Research Class of Asst. Prof. Esin Usun Oğuz as a voluntary student.
- Conducted an In-Depth Interview, took voice tape and transcribed afterwards.

AREAS OF INTEREST

- Social Psychology
- Moral Psychology
- Cognitive Science of Religion
- Dietary/Ethical/Moral Lifestyles (e.g., Veganism)
- Close Relationships
- Health Psychology

EXTRACURRICULAR ACTIVITIES

Koroporte, İş Sanat Stage, Istanbul, Turkey, 2006 – 2012

- Displayed shows of Hayvanlar Karnavalı (Camille Saint Saens), Bir Sergiden Tablolar (Modest Mussorgsky), Ege'den Mitolojik Mırıltılar (Anonymous Greek Lullabies), Peer Gynt – Who Am I? (Henrik Ibsen – Edward Grieg) in this time interval.

Istanbul University, State Conservatoire, Istanbul, Turkey, 2000 - 2005

- Participated part-time studies of Flute under the supervision and teachings of Flutist Halit Turgay.

Musician/Flutist, Yeditepe University Symphonic Orchestra, Istanbul, Turkey, 01.2013 – 06.2014

- Played the Second Flute in Yeditepe University Symphonic Orchestra, participated two major concerts.

E-Sports Gamer & Fan

- An E-Sports Fan, interested in all kinds of E-Sports Branches, including League of Legends, CS:GO, Starcraft II etc.

EXAMINATIONS

GRE General Test (Test Date: November 13, 2018)

- **Verbal Reasoning:** 153 (61st Percentile)
- **Quantitative Reasoning:** 159 (72nd Percentile)
- **Analytical Writing:** 4.0 (59th Percentile)

IELTS Academic (Test Date: April 04, 2018)

- **Listening:** 7.5
- **Reading:** 8.5
- **Writing:** 6.0
- **Speaking:** 6.5
- **Overall:** 7
- **CEFR Level:** C1

LANGUAGES

- Advanced Level of English
- Beginner Level of German – B1 Certificate from Goethe Institute
- First Step Level of Korean – Knowledge of Hangeul (Korean Alphabet)
- Native Language is Turkish