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Vegetarianism as a social identity

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Food choice can be a way for people to express their ideals and identities. In particular, for those who identify as vegetarian, this label is more than just a set of dietary preferences. Choosing to follow a plant-based diet shapes one's personal and social identity and is likely to influence a person's values, attitudes, beliefs, and well-being. The available data suggest that vegetarians are more pro-social than omnivores and tend to have more liberal political views. Nevertheless, vegetarians do not appear to be as well-adjusted as omnivores, which may be the result of their status as a social minority. Despite the attention vegetarianism has received, more research is needed to understand the antecedents, correlates, consequences, and socio-cultural contexts of vegetarianism.

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A vegetarian is generally thought of as a person who does not eat meat. Although such a straightforward criterion may seem sensible, the underlying social reality is much more complex. In terms of understanding vegetarianism as a social identity, we propose that vegetarianism is best thought of as a continuum [1]. Whereas vegans avoid consuming all animal-based products (e.g. no meat, dairy, eggs, honey) and avoid using products derived from animals (e.g. no leather), lacto-vegetarians (vegetarians who eat dairy products), ovo-vegetarians (vegetarians who eat eggs), and pescetarians (vegetarians who eat fish) are less restrictive.

It has been estimated that there are 1.5 billion vegetarians worldwide; however, this statistic needs to be considered within the context of the dietary choices that are available to people. As discussed by Leahy, Lyons, and Tol [2], vegetarians consist of two broad categories: 'vegetarians of necessity,' people for whom meat is not readily available (e.g. it is too expensive), and 'vegetarians of choice,' people for whom meat is readily available but who choose to avoid the consumption of meat. A defining characteristic of the social identity of vegetarianism is choosing to avoid the consumption of meat. Therefore, our review will focus on vegetarians of choice, who are primarily residents of Western industrialized countries. The available research suggests that no more than 10% of people follow a vegetarian diet, broadly defined [3], with an estimated minimum of perhaps 5%.

What is social identity?

Although there are various definitions of social identity, they have in common that social identities consist of how people define themselves in terms of the groups to which they think or feel they belong. People can (and typically do) have multiple identities, for example, someone may think of herself as a vegetarian, a carpenter, and a mother. Social identities do not require formal acknowledgment from a group. Although there may be a carpenters' union that issues a membership card, there is no corresponding credential for being a mother. Moreover, the salience of these identities can (and generally will) vary across time and situations. While working, our exemplar is a carpenter, whereas at home, she is a mother. Finally, social identities include normative expectations for attitudes and behaviors. Carpenters are hard-working and precise, whereas mothers are loving and kind, and so forth.

Perhaps the most significant body of work on social identity is that based on Tajfel's and colleagues' research on what is generally referred to as Social Identity Theory (SIT) [4]. SIT posits that people categorize themselves and others into groups, and such categorization leads people to think of individuals in terms of these social identities (group membership). Moreover, people tend to think of their in-group as better than and as more heterogeneous than out-groups [4]. Individuals within a particular group tend to share ideas, opinions, knowledge and beliefs about specific social objects, which are referred to as social representations [5]. According to Moscovici [6], this system has two central functions. First, it allows people to orient themselves and navigate their material and social worlds, and second, this common understanding of values beliefs and practices allows for effective communication between members of groups. For example, foods choices and practices can provide powerful messages about people's personal beliefs as well as their group identity [7•].

Is vegetarianism a social identity?

A strong case can be made that following a vegetarian diet provides a basis for a social identity. Vegetarians share a set of beliefs about the consumption of animal-based products which leads to common food-related practices and behaviors (not eating meat). Because eating is typically or at least frequently a social activity [8] adhering to these norms is typically a public activity. This means that vegetarians (however vegetarianism is defined) think of themselves in a certain way and are viewed by others in this way. In this manner, perceptions of the self as a vegetarian serve as a social representation [9], which is dependent on the context in which the person lives, and provides a lens through which the self is viewed [10].

This combination of internal representation and social construction provides a basis for a social identity very much along the lines suggested by SIT [11••]. As a result, for those who identify as vegetarian, this label is more than just a set of dietary preferences. Food choice has increasingly become a domain within which people express their ideals and identities. As a result, food choices can connect people to communities of individuals who share similar food-choice patterns and by extension, similar values and beliefs, thereby linking food choices to both personal identity and social identity [12]. Consistent with this, choosing a vegetarian diet shapes one's personal and social identity [13], and food choices may come to represent an individual's broader life philosophy [14] and can become entangled with other aspects of self-concept, such as concerns about health and moral views. Chuck, Fernandes and Hyers [15] describe this as a 'spillover effect' in which peoples' food choices affect broader philosophical views, which in turn direct their schooling, activism, and career goals over time.

Such connections led Rosenfeld and Burrow [11••] to propose a Unified Model of Vegetarian Identity. This model posits that vegetarians' identity development is determined by the interaction of internal factors, in which food choices are assimilated into identity, the context in which they live, and external factors, which represent the enactment of vegetarian identity into behavior. Vegetarians' food choices not only distinguish them from omnivores, these food choices shape how they view themselves (private regard) and how omnivores view them (public regard).

Recent research shows that although vegans and vegetarians are often grouped together, they differ in their private and public regard. Omnivores hold more negative attitudes toward vegans than toward vegetarians [16,17], which probably helps to explain why vegans feel more stigmatized for following their diets than vegetarians feel [18••]. Despite their low public regard, vegans have relatively high private regard. Vegans have more positive attitudes toward other vegans than they have toward non-vegan vegetarians [19], and they judge omnivores more harshly than vegetarians do [18••]. These intergroup comparisons reflect the motivational factors described in SIT, which include the need for a positive social identity, a social identity that establishes the self and the in-group as different from and better than outgroups on relevant dimensions of comparison [4].

Identity versus diet

With this in mind it is important to distinguish dietary habits from social identity. For example, people may not eat meat but not identify as vegetarians — they may simply think of themselves as people who do not eat meat, no more, no less. In contrast, others may consider themselves to be vegetarian, yet they may eat meat occasionally. For example, although 5% of adults in the United States identify as vegetarian (https://news.gallup.com/poll/156215/consider-themselves-vegetarians.aspx), only 3% actually eat a vegetarian diet (http://www.vrg.org/blog/2012/05/18/how-often-do-americans-eat-vegetarian-meals-and-how-many-adults-in-the-u-s-are-vegetarian/).

Recognizing the difference between what people eat (diet) and who/what they think they are (identity) can explain the (apparent) inconsistency between the lack of an increase in the number of people who identify as vegetarians and reports of reductions in the consumption of meat. The available data suggest that the percent of the population who identify themselves as vegetarians has remained relatively constant over the past 20 years, at least in the UK and US [7•]. At the same time, there appears to be a decline in beef consumption (at least in North America over the past 10–15 years), and more recently, there has been dramatic increase in sales of plant-based meat substitutes (https://www.businessinsider.com/meat-substitutes-impossible-foods-beyond-meat-sales-skyrocket-2019-5?IR=T).

It is important to note that reductions in the consumption of beef and increases in the consumption of plant-based meat substitutes do not necessarily mean there are more vegetarians. A decrease in the consumption of beef appears to reflect the fact that people are eating the same amount of meat but are eating less beef and more chicken (https://www.wri.org/blog/2018/01/2018-will-see-high-meat-consumption-us-american-diet-shifting). Similarly, people may be eating more plant-based meat substitutes and less meat, but this does not mean they have become vegetarians. Nevertheless, there appears to be a trend in Western industrialized countries for people to reduce their consumption of meat, but not to eliminate it entirely, something that is sometimes referred to as a 'flexitarian' diet [20]. Regardless, one needs to be cautious when drawing inferences about the prevalence of vegetarianism based on statistics describing the consumption of meat and of plant-based meat substitutes.

In terms of their implications, the importance of distinguishing identity and diet is illustrated by the following example. Alfred recently decided to reduce his consumption of meat, but he did not become vegetarian. When people ask him at which restaurant he wants to eat his options are the same as they were before he decided to eat less meat. His change in diet is not manifested in his social behavior. Allen has recently become a vegetarian. In contrast to Alfred, when people ask him at which restaurant he wants to eat his options are different and probably more limited than they were before he became a vegetarian. His change in diet is clearly manifested in his social behavior. Being a vegetarian is more socially visible and has more implications for one's social life than eating less meat has.

We should note that we are unaware of research that has examined the possibility that vegetarians of choice do not self-identify as vegetarians. Researchers appear to have assumed that people choose to be vegetarians and because of this they think of themselves as vegetarians and by implication, define themselves as vegetarians. Nevertheless, it is possible that some individuals who follow a vegetarian diet do not think of themselves as vegetarians. Moreover, it appears that vegetarians differ in terms how central their dietary habits are to their individual identities [18••]. Such possibilities need to be examined in future research.

Beliefs, attitudes, and outcomes associated with a vegetarian identity

Understanding the beliefs and attitudes associated with a vegetarian identity requires understanding the reasons why people become vegetarians because the reasons why people become vegetarians are likely to be associated with beliefs and attitudes that may not be directly related to diet choice. As noted by Rosenfeld [21], "Overall, recent research converges to suggest that the three most common motivations among vegetarians in developed Western nations are concerns about animals, health, and the environment" (p. 126). It is important to note that these motives are not mutually exclusive. Most vegetarians report being motivated by a combination of motives to adopt a vegetarian diet [11••,22,23]. Finally, some people may be motivated to adopt a plant-based diet by the appeal of the 'idea' of being vegetarian. This is referred to as social identity motivation, and reflects the desire to identify with a social group because of its perceived positivity and potential benefits for one's self-esteem [24••].

Vegetarians' motivations for their food choices have been found to have implications for their behaviors and other outcomes. For example, Plante *et al.* [24••] found that the strength of health and ecological motivations were positively related to in-group bias, but they also found that the strength of health motivations were related to other outcomes such as greater restrictiveness and disclosure, whereas ecological motivation was not related to these outcomes. In contrast, ecological motivations were positively related to the strength of negative outgroup perceptions and were negatively related to vegetarians' self-esteem whereas health motivation was not related to these measures. Such results may be explained at least in part by the fact that omnivores hold more negative attitudes toward ecologically motivated vegetarians than toward health-motivated vegetarians [17], and ecologically motivated vegetarians may be more aware of the more negative attitudes of the omnivore negative outgroup than health motivated vegetarians are.

Despite these differences in motivations, the available data suggest that vegetarians as a whole are more 'caring' or more prosocial people than omnivores. For example, Ruby [25] concluded that: "Broadly speaking, Western vegetarians tend to be liberal in their political views, place emphasis on environmental protection, equality, and social justice, and oppose hierarchy, authoritarianism, capital punishment, and violence in general (p. 146)." Vegetarians have been found to be more empathetic than omnivores regarding human suffering [e.g. Ref. 26]. Consistent with this, Filippi *et al.* [27] found that in response to images of suffering, areas of the brain related to emotions were activated more in vegetarians than in omnivores. Omnivores have been found to place less emphasis on emotions than vegetarians [28]. Vegetarians have also been found to be more altruistic than omnivores, advocating values such as protecting the environment, equality, and social justice more strongly than omnivores [e.g. Ref. 29]. Consistent with this, vegetarians have been found to be more likely than omnivores to work in charitable organizations, local government, or education, and have been found to favor government redistribution of income more strongly than omnivores [30].

Recently, Nezlek and Forestell [31] extended research on this topic by demonstrating that vegetarianism was associated with how people voted in the recent US presidential election. They found that: 'compared to vegetarians and semi-vegetarians, omnivores favored conservative policies more strongly and liberal polices less strongly, identified more closely with the Republican party and less closely with the Democratic party, were less liberal, approved of Donald Trump's performance more, and were more likely to have voted for Trump' (p. 1). These results are consistent with previous research that has found that meat eaters tend to be more authoritarian and higher in social dominance orientation than vegetarians [e.g. Refs. 32,33], and they tend to be more politically conservative than vegetarians [34].

Implications of vegetarian social identity for psychological well-being

At first glance, it might seem that the stronger pro-social orientation of vegetarians compared to omnivores should

be associated with increased psychological well-being. Unfortunately for vegetarians, this is not the case. A growing body of research has found that vegetarians are not as well adjusted as omnivores. They tend to be more neurotic, depressed, and anxious [e.g. Refs. 35–40]. Consistent with this, in a daily diary study Nezlek, Forestell, and Newman [41•] found that vegetarians reported lower daily self-esteem, psychological adjustment, and meaning in life, and more negative moods than semi-vegetarians and omnivores. They also found that vegetarians had more negative social experiences than omnivores and semi-vegetarians. This last result was consistent with the results of MacInnis and Hodson [17] who found that vegetarians reported having negative social experiences because they were vegetarians.

Although it is possible that vegetarians' mental health outcomes are a result of nutritional deficiencies [37], we believe there are two other probably more important reasons for these negative outcomes. First, and perhaps most important, no matter how vegetarianism is defined, vegetarians constitute a social minority. As noted previously, estimates vary, but in most Western industrialized societies and in many non-industrialized countries (e.g. Vietnam), vegetarians make up less than 10% of the population [2,3]. Moreover, members of social minorities are often devalued or denigrated by members of the majority culture, and we believe that vegetarians' status as a social minority may be responsible for their reduced well-being (at least in part).

In general, members of social minorities have been found to have lower levels of well-being than members of social majorities [42]. For vegetarians this likely arises because, like many social minorities, they experience social rejection or alienation by the social majority (omnivores) as a result of misunderstandings and conflicting values [15,17]. Consistent with this, Minson and Monin [43] found that omnivores engaged in out-group derogation of vegetarians, associated vegetarians with negative words and self-righteousness, and assumed that vegetarians viewed them as morally inferior.

Even if vegetarians were not a social minority, there are reasons to believe that their values, beliefs, and attitudes would predispose them to have lower well-being than omnivores. Given the current state of the world, vegetarians' stronger pro-social orientation may lead to decreases in their well-being. Vegetarians are more concerned than omnivores about social equality; yet income inequality (and by extension, social inequality) is on the rise worldwide. Vegetarians are more concerned than omnivores about the state of the environment; yet global warming is increasing, rain forests are being destroyed at an increasing rate, species are disappearing due to environmental degradation, and so forth. Vegetarians oppose violence in general more strongly than omnivores; yet a constant state of war seems to exist in many parts of the world, Afghanistan, Syria, Iraq, Congo, and Yemen, to name a few.

Moreover, stronger pro-social attitudes may predispose people to experience reduced psychological well-being. For example, in studies of general populations, the perception of inequality has been found to be negatively related to well-being [e.g. Ref. 44]. Similarly, perceptions of the magnitude of environmental problems have been found to be negatively related to well-being [45]. Although omnivores are not insensitive to these problems, the data clearly suggest that vegetarians are more sensitive to these issues than omnivores are, which means that vegetarians' well-being may be affected more by these external factors than the well-being of omnivores is affected.

Conclusions, limitations, and future directions

There is little doubt that vegetarianism is a social identity and that it is more than a mere dietary choice. Moreover, similar to other social identities being a vegetarian has implications for the values, beliefs, and attitudes people hold. In turn the values, beliefs, and attitudes vegetarians hold have implications for their behavior (broadly defined) and for their well-being.

Nevertheless, the existing research suffers from important limitations. Conceptually, not enough attention has been paid to possible differences among types of vegetarians, including differences in why people are vegetarians. Some research suggests that vegans are meaningfully different from other types of vegetarians [e.g. Refs. 18••,39,41•], but more attention needs to be paid to possible differences between vegetarians who have similar eating habits but different reasons for being vegetarians. For example, two people may be lacto-ovo vegetarians, but one may do so for health reasons whereas another does so for ecological reasons. Although Plante *et al.* [24••] found that different motives can lead to different behavioral outcomes, they suggest that future research should investigate possible moderator variables (e.g. length of time identifying as a vegetarian), establish better validated measures of vegetarian motivations, and employ behavioral outcomes rather than relying solely on self-report.

The empirical database is also limited geographically. Most of the research on vegetarianism as a social identity has been done in Western and Northern Europe (e.g. Germany and the Netherlands), the US and Canada, and Australasia. Relatively little has been done in Latin America, Southern, Central, or Eastern Europe, Asia (Western, Central, or Eastern), parts of Oceania other than Australasia, and Africa. Given that existing research suggests that being a vegetarian is associated with holding more pro-social socio-political attitudes and with reduced

mental health in Western cultures, it is important to determine if such relationships exist outside of the capitalist democracies that have been studied to date. For example, Jin, Kandula, Kanaya, and Talegwkar [46•] found that South Asian immigrants to the US who were vegetarians were less likely to be depressed than their relatives who were omnivores. This may have been because vegetarians were not social minorities in the communities in which these immigrants resided.

Contrary to the trends in some of the countries, in which vegetarianism as a social identity has been studied, meat consumption is on the rise in some countries that have enjoyed recent improvements in their economies [47]. Although a decrease in meat consumption may not indicate an increase in vegetarianism, despite the risks involved in using trends in meat consumption as proxies for trends in vegetarianism, it seems unlikely that an increase in meat consumption could be accompanied by an increase in vegetarianism. Such trends suggest that understanding vegetarianism and its antecedents, correlates, and consequences needs to take into account the socio-cultural contexts within which people are living.

Reducing meat consumption has become an important sustainability goal, and there has been an increase in campaigns across the globe to dissuade consumers from consuming animal-based products, particularly eating meat. The effectiveness of such advocacy may depend on the social identity of the advocates and how they communicate their message [48]. Thus it will be important to consider social identity theory to develop effective messages to increase meat-eaters' willingness to reduce meat consumption.

Related to changing attitudes about meat consumption is what the popular press sometimes refers to as 'vegetarian activism.' Given differences in the centrality of diet based identities [18••], a more accurate term would probably be 'vegan activism.' although even this distinction cannot be supported by any research. Putting aside definitional issues, there is virtually no research on vegetarian activism *per se*. Nevertheless, there is a body of research showing that minorities can influence majorities [49], and given this, it is possible that vegetarians can influence the dietary practices of omnivores [48], although how successful such efforts will be remains to be seen.

Finally, there are issues of causation. Why do people decide to become vegetarians? How do such decisions unfold? What are the causal relationships among the values, beliefs and attitudes that define contemporary vegetarianism? In terms of substantive questions such as relationships between diet and well-being and between diet and pro-sociality, are people with lower well-being more likely to become vegetarians than people who are higher in well-being, and are more pro-social people likely to become vegetarians than people who are less pro-social? Such questions have not been the focus of systematic empirical research and cannot be answered conclusively. Although much is known, much more needs to be known.

Conflict of interest statement

Nothing declared.

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This paper reviews a variety of studies about baseline rates of vegetarianism in the US. The coverage is thorough and appears to be unbiased. Comparisons of rates as a function of survey design and sponsorship (among other factors) are considered. Regardless of the specific conclusions, the paper provides a good framework for evaluating the accuracy of surveys about vegetarianism.

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