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Dating a Vegetarian? Perception of Masculinity, Attractiveness, and the Willingness to Date Vegetarians

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Supplementary Materials: Data, Materials [see Index of Supplementary Materials]





Abstract

The study examined how following a vegetarian diet affects the attractiveness of a potential dating partner among those who do not follow a vegetarian diet. Participants, 404 heterosexual meateaters, took part in an online experiment in which they evaluated the dating profile of a target person who was described as following a vegetarian diet for health, ethical, or environmental reasons, and a control condition that had no description of the target's diet. Participants rated the target in terms of a feeling thermometer, willingness to date, gender congruence, and possession of masculine and feminine traits. Participant's level of identification as a meat-eater was also measured. A series of two (participant gender) by four (target diet) ANOVAs found significant interactions in the analyses of the feeling thermometer ratings, showing that women viewed ethically motivated targets less positively than men did. We also found significant main effects of target diet in willingness to date, gender congruence, and possession of feminine and masculine traits. Meat-eaters evaluated targets with no diet information more positively than the healthmotivated target. Controlling for identification as a meat-eater, women evaluated ethicallymotivated targets as having less feminine traits than men did. The present results suggest that being a vegetarian makes a person less attractive as a potential partner among omnivores, who constitute the majority of people in most Western, industrialized countries.



Keywords

romantic relationships, vegetarianism, dating, gender roles

Highlights

- The similarity effect in romantic attraction has been discussed with respect to
 personality traits but not much attention has been paid to the similarity of dietary
 habits.
- This study examined how the similarity in the context of diet (eating or not eating meat) affects romantic attraction and thus the desire to date people on a different diet.
- The results may contribute to a better understanding of why men are less willing to become vegetarian.

Interpersonal Attraction and Romantic Relationships

Traditionally, interpersonal attraction has been defined as a positive attitude toward another person, often accompanied by a desire to form and maintain a relationship with them (Aron & Lewandowski, 2001). It is worth noting that attraction can be expressed in different contexts, for example, within the context of a family, romantic relationships, non-romantic friendships, professional settings, and so forth. In this study, we focused on romantic relationships.

The question of why we feel drawn to certain individuals and not to others is fundamental in the study of romantic relationships (Luo & Zhang, 2009). Numerous studies have examined the mechanisms behind romantic attraction, resulting in the establishment of several widely recognized principles of attraction that incorporate motivational, cognitive, cultural, and evolutionary perspectives (Aron & Lewandowski, 2001). In terms of culture, variation in mate preferences may result from diverse trajectories of cultural and social norms, values, or symbolism (Reischer & Koo, 2004).

The presented study was conducted in Poland, a traditionally Catholic country, with family being one of the most important values (Marchlewska et al., 2019). The discussion of romantic relationships in Poland is inherently linked to the discussion of gender roles and the place of men and women in Polish society. On the one hand, this discussion is informed by the Catholic Church, a dominant institution in Poland that promotes a traditional, heteronormative family model (Golebiowska, 2014). On the other hand, the changes from socialism to capitalism that took place in Poland almost 30 years ago entailed a change in a socially promoted model of the perfect woman, which from this point on should be a super-woman, combining domestic and professional responsibilities (Kazmierczak, 2010).

The influence of gender stereotypes, traditional gender roles, and socialization on people's preferences for romantic partners has been examined in numerous studies (e.g.,



Nevid, 1984). The role of gender in mate selection is usually discussed in the context of evolutionary or socio-ecological theories (Marshall, 2010). Evolutionary theory emphasizes the importance of gender differences in mate selection that evolved to maximize human reproduction, showing that, for example, men place more importance on appearance and women are more likely to value status (Buss, 1989). From the socio-ecological perspective, men and women may also differ in what they look for in a partner, but these differences are perceived as the reflection of the internalized sociocultural standards (Eagly & Wood, 1999). According to sexual script theory, shared expectations about how someone should behave when establishing or maintaining a romantic relationship, are addressed by dating scripts, which are derived from the media, school, or other institutions (Greene & Faulkner, 2005). Dating scripts also reinforce traditional gender roles by, for example, encouraging dominant behavior from men and submissive behavior from women (Simon & Gagnon, 1986).

Regardless of gender roles, one of the most consistently observed phenomena in research on romantic attraction is the "similarity effect" (Byrne, 1997): The more similar a target individual is to someone, the more attractive the target is seen to be. This effect has been documented across diverse populations and age ranges (e.g., Byrne, 1997; Yeong Tan & Singh, 1995), and a meta-analysis of more than 300 studies on similarity found that similarity consistently elicits a positive and moderately strong impact on attraction (Montoya et al., 2008).

The similarity effect has been discussed with respect to attitudes and personality traits but not much attention has been paid to the similarity of dietary habits. The similarity of diets seems particularly important in the context of romantic relationships, as sharing a meal is considered typical courtship behavior (e.g., Amiraian & Sobal, 2009). In this study, we focused on the vegetarian diet, because vegetarianism, aside from being a dietary practice, appears to be a social identity for those who follow a vegetarian diet (Nezlek & Forestell, 2020; Rosenfeld et al., 2020). Based on the similarity effect, in terms of potential romantic partners, we assume that non-vegetarians would be romantically attracted to other non-vegetarians, i.e., people who do not differ from them in their eating practices and values.

Romantic Attraction and Diets

Vegetarians often differ from meat-eaters in terms of values and beliefs (Rosenfeld, 2018; Ruby, 2012) and this difference, according to the similarity effect, should result in a decrease in the romantic attraction between those two dietary groups. Indeed, previous research has supported this from vegetarians' perspective, showing that they prefer to date other vegetarians (Amato & Partridge, 1989). Another study confirmed that vegetarians were more likely to have partners who followed a vegetarian diet than meat eaters, and this effect was present in both American and Polish samples (Nezlek et al., 2021).



In the case of the romantic attraction of meat-eaters towards vegetarians, the decrease may be even stronger because, for some meat eaters, vegetarians may not only differ from them in values but may even threaten values that are important to them. Eating meat is seen by many people as an integral part of their culture and traditions, and a decision to abstain from eating meat may be seen as a rejection of prevailing norms (Dhont & Hodson, 2014). People who view eating meat as crucial to their identity may be particularly negative towards those who do not eat meat and who threaten their values. This prediction is based on studies of in-group favoritism and out-group derogation, which have consistently found that stronger identification with one's own group leads to outgroup biases (e.g., Hewstone et al., 2002). Eating meat might have a special significance in Poland, a country with a strong meat-eating tradition, where per capita meat consumption is stable and the supply of meat to the domestic market is increasing (Statistics Poland, 2018).

Most studies on the perception of people as a function of their diets tend to find ingroup favoritism or outgroup derogation between veg*ns (consistent with current use, we use the term "veg*n" to refer to vegans and non-vegan vegetarians) and meat-eaters (e.g., Guidetti et al., 2023). Those studies usually examine perceptions of people in general, and studies on romantic attraction are limited. Most studies show the effect on personal relationships of changing one's diet from the perspective of veg*ns. Veg*ns report that their relationships have been negatively affected since their dietary change to veg*nism (Jabs et al., 2000), and they experience lack of understanding from meat-eating friends and family (Twine, 2014).

From the meat-eaters' perspective, Vandehei and Perry (2023), examined people's reactions to the transition to veg*nism of people's close ones. They found that the frequency of contact between meat-eaters and family members and friends decreased when family members and friends started to follow a veg*n diet, whereas contact did not decrease when romantic partners started to follow a veg*n diet. The study did not include people who were in relationships that ended due to one partner's change in diet.

There are no studies that explore the role of veg*nism in searching for a potential partner or entering a new relationship. Some evidence for this phenomenon may be found in studies on the perception of attractiveness of people on different diets. For example, a study in Italy found that women prefer meat-eating men and perceive them as more attractive than men following plant-based diets (Timeo & Suitner, 2018).

Differences in the perception of attractiveness of male vegans and meat-eaters suggest that in the context of romantic attraction, the devaluation of vegetarians may combine with the effect of gender roles on the perception of potential partner. Indeed, research on vegetarianism and gender suggests that social perceptions of male and female vegetarians differ (Modlinska et al., 2020). Men who choose to reduce the amount of meat they consume are more likely than meat-reducing women to encounter social rejection, facing public ridicule and exclusion (MacInnis & Hodson, 2017; Torti, 2017).



This may be due to the fact that meat is considered a "masculine" food in most societies (e.g., Rothgerber, 2013; Rozin et al., 2012; Sobal, 2005).

Perceiving diets as either feminine or masculine can lead to gender bias, which can affect how both women and men approach the idea of following a vegetarian diet. Research has shown that men who opt for a vegetarian diet may feel conflicted between their personal preferences and societal expectations of their gender, potentially causing them to give up their desire for a vegetarian diet so as to conform to traditional gender norms (Rosenfeld, 2020). Given the role of gender stereotypes in romantic attraction and partner preference (Malach Pines, 2001) on the one hand and the stereotypical association of meat with masculinity (Modlinska et al., 2020; Sobal, 2005) on the other, it can be surmised that the attractiveness of vegetarians will depend on their gender.

The present study is the first to explore the role of veg*nism in searching for a potential partner. Additionally, the study's novelty lies in its examination of the role of motivations behind the choice of veg*n diet in shaping perceptions of veg*ns. For vegetarians, dietary motivations have been discussed as a a central aspect of identity (Rosenfeld & Burrow, 2017), serving as a predictor of their attitudes and behaviors while also influencing how omnivores perceive them (Rosenfeld, 2018). Although studies show that attitudes toward ethically-motivated vegetarians are the most negative, no prior studies have examined the perception of veg*ns with different motivations in the context of their attractiveness. It is possible that the threat posed by ethically-motivated veg*ns to the dominant omnivorous group (MacInnis & Hodson, 2017) translates into a negative perception in the dating context. However, no empirical evidence currently supports this hypothesis.

The Present Study

The study examined how dissimilarity in the context of diet (eating or not eating meat) affects romantic attraction and thus the desire to date people on a different diet. Given that the vast majority of people in Poland are meat-eaters (Sosin et al., 2019), we focused on how meat-eaters evaluated potential romantic partners as a function of the targets' diets. Although studies show that mate preferences of homosexual men and women resemble those of heterosexual men and women, there are still some differences in mate preferences (e.g., Ha et al., 2012). Thus, we decided to only include heterosexual individuals in the study.

We assumed that meat eaters perceive vegetarians as differing from them in terms of values or even as a threat to their own values. Thus, we hypothesized that meat eaters would perceive vegetarians less positively than they would perceive non-vegetarians, both at the level of overall evaluation (H1a) and attractiveness ratings (H1b). In addition, we varied the reason as to why vegetarian targets followed a vegetarian diet. Since people give up eating meat for various reasons, we assumed that not only the information about being a vegetarian may influence the perception of a potential partner but also



the motive underlying the choice of diet: ecology, animal welfare or health. Due to the limited number of studies concerning the role of the reason to follow a vegetarian diet in the perception of vegetarians, we examined differences in the evaluation as a function of the specific vegetarian diet a target followed on an exploratory basis.

We also examined if there were any differences in the evaluation of female and male vegetarians. We assumed that because dietary choices have an impact on the perception of masculinity and femininity, and thus attractiveness (Rozin et al., 2012), the decision to exclude meat (prototypical "male" food) will influence the evaluation of men. Thus, we hypothesized that men on a vegetarian diet will be rated as less masculine and less attractive than men who are not vegetarian (H2). Because being vegetarian, thus caring about one's health or animals, is in line with the gender stereotypes of women (e.g., Vartanian et al., 2007), we do not expect that women on a vegetarian diet will be rated differently than non-vegetarian women (H3). This assumption is also based on a previous study conducted in Poland that found that the vegan diet of a target did not influence perceptions of a female target (Adamczyk & Maison, 2023).

Finally, we examined whether identification with meat eaters (ingroup) would translate to negative perceptions of vegetarians (outgroup). We assumed that the relationship between the evaluation of vegetarians will be moderated by the level of meat-eater identification. Those with stronger meat-eater identification (ingroup) will evaluate those on a vegetarian diet (outgroup) less positively than those with a weaker identification (H4). In general, social perceptions also vary as a function of whether an assessor is an in- or outgroup member (Tajfel & Turner, 2004), and tensions may arise from inter-group conflicts. It can be assumed that people who strongly identify with meat eaters and, thus, perceive vegetarianism as a threat, will perceive vegetarians worse than people who do not identify so strongly with their group.

Method

Recruitment and Participants

The study was conducted in July 2022 in Poland, using an online panel. Due to practical considerations, we limited participants to heterosexuals. Including non-heterosexuals would have made the design unwieldy. We address this issue in the discussion section. In addition, because the perception of the ingroup may differ from the perception of the outgroup, we decided to include only meat-eaters. A total of 404 participants took part in the study, aged 18-82 (M=45.67, SD=14.94). We wanted to see if there are any differences in the perception of vegetarians in men and women, and we sampled men and women equally (204 women, 200 men). The study was approved by the Ethics Committee at the Faculty of Psychology, University of Warsaw (Ref: 24/11/2021).



When designing the study, we used G^*Power to estimate the sample size. Our goal was to obtain .95 power to detect a medium effect size of .25 with p < .05. As explained below, we had four conditions. A sample of 400 achieved this goal.

Procedure

In the first stage of the study, the participants were presented with the following instructions:

Imagine that you are using a dating app to look for a partner. Carefully view the profile of a **man/woman** (*depending on the participant's sexual orientation*) looking for a partner, and then answer a question about this person.

After reading the introduction, the respondents were randomly assigned to one of the four experimental conditions and were presented with one version of a dating profile. There were four versions of the profile, differing only in terms of the information about the target's diet. The versions of the profile were as follows: (a) A person is a vegetarian for ethical reasons; (b) A person is a vegetarian for environmental reasons; (c) A person is a vegetarian for health reasons; and (d) No information about the diet (control condition). Similar versions were prepared for men and women, differing only in the picture and name (male or female) of the person. Participants viewed the profile according to their heterosexual preference—male participants were presented with a female target profile, and female participants with a male target profile.

The profiles were prepared to reflect the look of a popular dating app (Tinder). Before the present study, a pilot study was conducted with heterosexual men and women (n=20) to assess the experimental material. Two versions of the male profile and two versions of the female profile were presented according to participant's sexual orientation, differing by the person's photo, but with the same description. The study took the form of a structured qualitative interview, in which participants were asked to describe their general impressions of the person, assess their attractiveness, state if there was anything in the description that they found strange, unfitting, out of place, and what they thought of the graphics themselves from a technical standpoint. Based on this, the versions that were most similar in terms of attractiveness were selected from the two versions presented. The participants' comments concerned mostly graphical issues, not the content of the description itself, except changing the phrase "I would love to go for coffee with you" to "I never say no to a good coffee". After the pilot study, the content of the descriptions and the pictures were changed according to the participants' comments to make them as neutral as possible.

The final profile included a photo (the same in each condition, different for each gender), and information about the person's interests and diet. The pictures were taken from the StyleGAN2 database, generated from the FFHO dataset by style-based generative



adversarial networks (Karras et al., 2020). The minimum profile exposure time was 30 seconds, after which the participant could proceed to the next part of the study.

Next, participants answered a series of questions regarding the person from the profile (outcome measures). After that, participants answered questions about identification with their diet.

Measures

Assessment of Attitudes Toward the Target

A feeling thermometer was used to assess general attitudes toward the target (Haddock et al., 1993). Participants evaluated the target on a 0 to 100 scale in terms of the feelings they evoked. A rating of 0 indicated very cold and unfavorable feelings, whereas 100 indicated very warm and favorable feelings. The feeling thermometer has been used successfully in studies of intergroup attitudes (e.g., Hodson & Costello, 2007). It is presumed to be a "pure" measure of evaluation because it is not tied to any specific, and potentially limiting, underlying dimension.

Willingness to Date (Behavioral Intention)

Participants' willingness to date the target was measured with a 10-item scale that was based on previous measures of willingness to date (McGloin & Denes, 2018), future contact intention (MacInnis & Hodson, 2012), and evaluation of physical attractiveness (Buss & Shackelford, 2008). The final set of items was: "I like this person", "This person is attractive", "I do not like the look of this person", "This person is worth meeting", "I would like to talk to this person", "I would like to get to know this person better", "I would give this person my phone number to develop our relationship", "I would like to go on a date with this person", "If that person asked me out, I would agree", "This person could be my partner". Participants responded to each item using a seven-point scale with endpoints labeled: 1 = completely disagree and 7 = completely agree. The measure was reliable, $\alpha = .96$.

Gender Congruence

The participants evaluated the gender congruence (Chappetta & Barth, 2016) of the targets (femininity for female targets, masculinity for male targets). This was a single-item measure, and the participants gave their answers on a scale of 1 to 7, where $1 = does \ not \ suit \ at \ all$, and $7 = suits \ perfectly$.

Assessment of Possession of Traits Related to Masculinity and Femininity

In addition to a single item measuring masculinity-femininity, participants rated targets on 19 personal traits taken from the Personal Attributes Questionnaire (PAQ; Spence et al., 1975). The eight masculine traits were: independent, active, competitive, makes



decisions easily, never gives up easily, self-confident, performs well under pressure, and feels superior. The eight feminine traits were: emotional, able to devote self completely to others, gentle, kind, aware of others' feelings, understanding of others, warm in relations with others, and helpful to others. The participants assessed the extent to which a given trait suited the target using a scale of 1 to 7, where $1 = does \ not \ suit \ at \ all$, and $7 = suits \ perfectly$. It is worth noting that the traits used are very similar to the warmth and competence dimensions (Fiske et al., 2002) and can be interpreted as such because gender-related traits are very similar to these constructs. The measure was reliable for both masculine ($\alpha = .90$) and feminine ($\alpha = .95$) traits.

Ingroup Identification

To measure the level of ingroup identification, we used a Polish-language version of a group identification scale originally by Leach et al. (2008) that was adapted by Jaworska (2016), with meat-eaters as an ingroup. Participants were presented with a set of 16 statements (e.g., "The fact that I am a meat-eater is an important part of my identity") and asked to agree with each statement using a scale of 1 to 7, where 1 = definitely disagree, and 7 = definitely agree. The scale was reliable, $\alpha = .96$.

Data Analysis

For the main analyses, we conducted a series of two (participant gender) by four (target diet) ANOVAs. Comparisons of the target diet conditions were conducted using contrast tests to compare the control condition with all vegetarian conditions (overall). Post-hoc comparisons were then performed to compare the control condition with each vegetarian condition individually, as well as to compare the vegetarian conditions with one another. Post-hoc comparisons were done with a Bonferroni correction. In addition, we conducted a series of ANCOVAs with target diet and participant gender as fixed factors and meateater identification as a covariate. Means for all outcomes by condition for ANOVA are presented in Table 1, and means for the ANCOVA are presented in Table 2.

Table 1Mean for Dependent Variables as a Function of a 2 (Participant Gender) by 4 (Target Diet) Design

Target Diet	General Attitudes			Willingness to Date			Gender Congruence			Masculine Traits			Feminine Traits		
	М	W	Т	M	W	Т	M	W	Т	M	W	Т	M	w	Т
Control	72.3	72.1	72.2	4.80	4.63	4.72	5.56	4.98	5.27	4.70	4.41	4.56	4.83	4.56	4.70
Eco	63.1	70.0	66.5	4.36	4.57	4.47	5.06	4.90	4.98	4.53	4.56	4.54	4.76	4.72	4.74
Health	62.5	61.4	62.0	4.25	4.14	4.20	4.80	4.17	4.49	4.27	4.20	4.23	4.32	4.20	4.26
Ethics	67.7	55.2	61.5	4.63	4.17	4.40	5.02	4.27	4.65	4.55	4.21	4.38	4.87	4.16	4.52

Note. M = Men; W = Women; T = Total.



 Table 2

 Mean for Dependent Variables as a Function of a 2 (Participant Gender) by 4 (Target Diet) Design With Meat-Eater Identification as a Covariate

Target	General Attitudes			Willingness to Date			Gender Congruence			Masculine Traits			Feminine Traits		
Diet	M	W	T	M	W	Т	M	W	T	M	W	Т	M	W	Т
Control	72.0	72.3	72.2	4.75	4.66	4.71	5.51	5.01	5.26	4.67	4.44	4.55	4.79	4.59	4.69
Eco	62.8	70.5	66.7	4.33	4.63	4.83	5.02	4.98	5.00	4.55	4.61	4.56	4.73	4.78	4.75
Health	62.1	61.9	62.0	4.22	4.20	4.21	4.76	4.23	4.49	4.4	4.25	4.24	4.28	4.25	4.27
Ethics	67.5	54.9	61.2	4.61	4.14	4.37	4.99	4.23	4.61	4.53	4.19	4.36	4.85	4.14	4.49

Note. M = Men: W = Women: T = Total.

Results

Assessment of General Attitudes

The analysis of general attitudes towards the target (feeling thermometer) yielded a significant main effect for target diet, F(3, 396) = 5.37, p = .001, partial $\eta^2 = .039$, but no main effect for participant gender, $F(3, 396) \le 1$. The main effect for diet was qualified by a significant interaction of participant gender and target diet, F(3, 396) = 3.47, p = .016, partial $\eta^2 = .026$. Post-hoc tests yielded a significant gender effect in the evaluation of ethically motivated targets: women viewed ethically-motivated men less positively than men viewed ethically-motivated women, p = .004. There was no gender effect in the evaluation of other targets (p = .95 for the control target, p = .11 for the ecologically-motivated target, p = .80 for the health-motivated target).

Willingness to Date

The analysis of willingness to date yielded a significant main effect of target diet, F(3, 396) = 2.67, p = .047, partial $\eta^2 = .020$. Neither the main effect of participant gender, F(3, 396) = 1.02, p = .383 partial $\eta^2 = .003$, nor the interaction effect, F(3, 396) = 1.08, p = .358, partial $\eta^2 = .008$, was significant. The test of contrasts showed that the control target (-3) was seen as more dateable than three vegetarian targets considered as a single group (1,1,1), p = .02. Post-hoc comparisons of the separate vegetarian conditions vs. the control condition found that the control target was seen as more dateable than the health target, p = .030, 95% CI [0.03, 1.01], whereas the control target did not differ from the ecologically-motivated target, or the ethically-motivated target. There were no significant differences between any of the three vegetarian targets.



Perceived Gender Congruence

The analysis of gender congruence yielded a significant main effect of participant gender, F(3,396) = 16.23, p < .001, partial $\eta^2 = .039$, a significant main effect of target diet, F(3,396) = 7.11, p < .001, partial $\eta^2 = .051$, but no significant interaction between target diet and participant gender, F(3,396) < 1. Women evaluated men as less gender congruent than men evaluated women. The test of contrasts showed that the control target (-3) was seen as more gender congruent than the three vegetarian targets considered as a single group (1,1,1), p < .001. Post-hoc comparisons of the separate vegetarian conditions vs. the control condition found that the control target was seen as more gender congruent than the health-motivated target, $p \le .001$, 95% CI [0.30, 1.30], and ethically-motivated target, p = .007, 95% CI [0.12, 1.13], whereas the control target did not differ from the ecologically-motivated target. Post-hoc comparisons between the means for the three vegetarian targets found that ecologically-motivated targets were seen as more gender congruent than health-motivated targets, p = .042, 95% CI [0.01, 1.01]. No other comparison was significant.

Possession of Masculine Traits

The analysis of the possession of masculine traits yielded a significant main effect of target diet, F(3,396)=3.01, p=.030, partial $\eta^2=.022$, but no significant effect of participant gender, F(3,396)=3.57, p=.014 partial $\eta^2=.009$, nor an interaction of diet and gender, F(3,396)=1.00, p=.393, partial $\eta^2=.008$. The test of contrasts did not show a significant difference in masculinity between the control target (-3) and the three vegetarian targets (1,1,1) considered as a single group, p=.09. However, post-hoc comparisons of the separate vegetarian conditions vs. the control condition found that the control target was seen as more masculine than the health-motivated target, p=.009, 95% CI [0.08, 0.57]. In addition, post-hoc comparisons between the means for the three vegetarian targets found that ecologically-motivated targets were seen as more masculine than health-motivated targets, p=.013, 95% CI [0.07, 0.55]. No other comparison was significant.

Possession of Feminine Traits

The analysis of the possession of feminine traits yielded a significant effect of target diet, F(3,396) = 4.95, p = .002, partial $\eta^2 = .036$, a significant effect of participant gender, F(3,396) = 8.21, p < .001, partial $\eta^2 = .020$, but no interaction of diet and participant gender, F(3,396) = 2.26, p = .081, partial $\eta^2 = .017$. Men perceived women as having more feminine traits than women perceived men to have. The test of contrasts did not show a significant difference in femininity between the control target (-3) and the three vegetarian targets considered as a single group (1,1,1), p = .10. However, post-hoc comparisons of the separate vegetarian conditions vs. the control condition found that the control target was seen as more feminine than the health-motivated target, p = .012,



95% CI [0.07, 0.81]. In addition, post-hoc comparisons between the means for the three vegetarian targets found that ecologically-motivated targets were seen as more feminine than health-motivated targets, p = .004, 95% CI [0.11, 0.85].

Controlling For Identification as a Meat-Eater

Lastly, we examined if identification as a meat-eater affected the evaluation of the target by adding identification as a meat-eater as a covariate. The ANCOVA found that identification as a meat-eater was not a significant covariate in the analysis of general attitudes, F(1, 395) = 2.81, p = .095, partial $\eta^2 = .007$; however, it was a significant covariate in the analyses of willingness to date, F(1, 395) = 9.72, p = .002, partial $\eta^2 = .024$, gender congruence, F(1, 395) = 12.84, p < .001, partial $\eta^2 = .031$, possession of masculine traits, F(1, 395) = 15.47, p < .001, partial $\eta^2 = .038$, and possession of feminine traits, F(1, 395) = 15.64, p < .001, partial $\eta^2 = .038$.

Including identification as a meat-eater as a covariate did not change the main effects and interaction for the analyses of willingness to date, gender congruence, and masculine traits. In the case of feminine traits, when meat-eater identification was added to the model as the covariate, the interaction effect of target diet and participant gender became significant, F(3, 395) = 3.09, p = .027, partial $\eta^2 = .023$. After controlling for identification as a meat-eater, women evaluated ethically-motivated men as having less feminine traits than men evaluated ethically-motivated women, p < .001. There was no gender effect in the evaluation of control targets (p = .33), ecologically-motivated targets (p = .78), or health-motivated targets (p = .86).

Discussion

We found several important results. First, consistent with expectations, being a vegetarian made a person less attractive as a potential dating partner. Compared to vegetarian targets, targets with no diet information were seen most positively in general, more masculine as well as more feminine, and thus more suitable to enter a relationship with.

Since only meat-eaters participated in the study, one explanation for the present finding is that people want to enter relationships with people who are on a similar diet to them. This is consistent with previous research that has found that vegetarians preferred to be in romantic relationships with other vegetarians (Amato & Partridge, 1989; Nezlek et al., 2021). The preference for relationships with people who do not mention their diet versus vegetarians can be explained by the fact that when it comes to romantic relationships, people feel attracted to those who are similar to them (Baumeister & Vohs, 2007). Thus, meat-eaters may believe that vegetarians simply have different values than they do (Nezlek et al., 2021), and those who do not mention their diet might be assumed to be meat-eaters, as a "default" option. This assumption, however, should be tested



in future studies that would include the condition in which the target person directly mentions their meat-based diet.

Some differences in the perception of vegetarians for different reasons were also found. The general pattern was that the control target was evaluated most positively, and the vegetarian for health reasons the least positively (least dateable, least gender congruent, least masculine and feminine). Those results are contrary to our predictions and not in line with previous studies, showing that ethically-motivated vegetarians are evaluated more negatively than health-motivated vegetarians (MacInnis & Hodson, 2017). These findings suggest that the motivation to follow a vegetarian diet has different meanings depending on the context, and the perception of vegetarians in a dating setting may differ from the perception observed in a neutral one. Studies on perceptions of veg*ns, such as the research by MacInnis and Hodson (2017), typically consider a general assessment of this group. However, social interactions do not occur in a vacuum; they are highly contextual (e.g., E. R. Smith & Collins, 2009). For example, male vegans applying for jobs are perceived differently depending on whether they apply for a stereotypically male or stereotypically female positions (Adamczyk & Maison, 2023). While general evaluations of veg*ns with different motivations may not vary in a neutral context, such differences may emerge in the dating context. It is possible that the juxtaposition of a health-oriented motivation with the dating context evokes certain associations (e.g., being picky, self-centered, or problematic in daily life) that are less apparent in a neutral setting, leading to devaluation. In a hypothetical distant context not tied to a specific social situation, the motivation behind veg*nism might be less significant than in a romantic context, which involves a certain level of commitment and personal contact. However, the specific reasons for the devaluation of health-motivated veg*ns in this particular context should be further investigated and compared to other close relationship scenarios (e.g., seeking a friend).

Previous studies about the role of food in romantic relationships showed that the food preferences of married couples tended to be similar as they entered the marriage (Kemmer et al., 1998). It is important to note that people forming a relationship negotiate rules for how they will function together, including rules about food. Research by Bove et al. (2003) found that among newly married couples, differences regarding healthy eating led to food conflicts. Those results may explain the reluctance to enter a relationship with someone valuing health in their diet.

In the case of health vegetarians (in this study, those who self-identified as "people who care about their health, so they are vegetarians"), there are two potentially differentiating characteristics between the participant and the target that may affect eating together: vegetarianism and caring about one's health. Vegetarianism per se does not have to be a healthy diet (Satija et al., 2017), and caring about one's health might be manifested in additional eating practices, not necessarily related to eating or not eating meat. A potential partner declaring vegetarianism on the one hand and caring about



health on the other may be perceived as more "problematic" and likely to make more changes to a potential relationship than someone on a vegetarian diet for the sake of animal welfare. Such a person will simply not eat meat—without necessarily making any other changes to the shared plate.

On the other hand, the obtained results about the differences in the perception of people on a vegetarian diet for different reasons are consistent with the observations regarding how vegetarians perceive other vegetarians. In a study conducted by MacInnis and Hodson (2021), both vegetarians and vegans preferred vegetarians for ecological or ethical reasons over vegetarians for health reasons. Perhaps the motivations for meateaters' devaluation of health-motivated vegetarians are similar—vegetarians for health reasons may be considered selfish and focused on individualistic benefits (as opposed to altruistic and group benefits in the case of ethical and environmental vegetarians (Fox & Ward, 2008).

Consistent with our expectations, we found that in some cases both diet and gender matter. First of all, in the overall evaluation of the targets, we found that women and men perceived targets differently. Men who were vegetarians for ethical reasons were perceived less positively than women who were vegetarians for the same reasons. Aversion to vegetarians due to ethical reasons is usually explained by the fact that they induce cognitive dissonance in meat eaters and force them to think about their own decisions in terms of their morality. However, our study did not find devaluations of ethically-motivated vegetarians, just overall less positive perceptions of male ethical vegetarians by women. This suggests that the devaluation of vegetarians for ethical reasons may be based not on the meat paradox (Bastian & Loughnan, 2017) but rather on their lack of conformity to gender norms (Browarnik, 2012). Caring for animals can indicate sensitivity and emotionality which are not characteristics that conform to the stereotypical image of masculinity (Helgeson, 1994). Men who choose such a diet may be judged less favorably because they do not conform to the stereotypical image of masculinity (Rozin et al., 2012; Timeo & Suitner, 2018).

In our study, the overall negative general perception of ethically vegetarian men did not translate into perceptions of less masculinity or a reduced desire to date. There may be several explanations for this outcome. One possibility is that it is not vegetarianism per se but choosing vegetarianism that is associated with lower masculinity (Thomas, 2016). It is worth distinguishing between vegetarianism as a certain diet that excludes some food categories that may be the result of external factors, such as a doctor's recommendation, and a conscious personal choice of vegetarianism as a manifestation of one's beliefs.

Second, it may be possible that the negative perception of vegetarians no longer translates into perceptions of less masculinity because patterns of masculinity may have changed. Traditional norms of masculinity socialize men to exhibit strength and dominance, particularly over others, and these ingrained stereotypes place expectations



on men to be stoic, independent, tough, and powerful (Courtenay, 2000). Nonetheless, it is important to acknowledge that masculinity as a social construct is not static and has always undergone transformations in response to societal and cultural changes (Connell & Messerschmidt, 2005).

In recent times, there has been a shift in the understanding of masculinity, challenging traditional stereotypes. The emergence of new forms of masculinity is being observed, and contemporary culture is embracing what is often referred to as the "new male" (S. Smith & Inhorn, 2016). The intersectionality of factors such as class, race, gender, and sexuality all contribute to the perception of masculinity within specific contexts and under specific conditions. It is the combination of these factors that leads to a divergence from the traditional notions of masculinity and the emergence of its new forms (Messerschmidt & Messner, 2020). Some researchers point out that due to pressure from feminist movements, traditional norms of masculinity are disappearing and being replaced by non-hegemonic norms. For example, a study by Iacoviello and colleagues (2022) showed that traditional masculinity is valued by men rather than women. Therefore, when examining the connection between vegetarianism and masculinity, it is important to consider the complexities of masculinity and perceive it as a dynamic social concept rather than a predetermined assumption.

Lastly, we found that identification as a meat-eater influenced the evaluation of the target. When identification was controlled, women evaluated male vegetarians for ethical reasons as having less feminine traits than other conditions. This result is contrary to our predictions—we assumed that the high level of meat-eater identification would make a person feel even more threatened by the possible changes in society brought about by vegetarians (Dhont & Hodson, 2014), and lead to the devaluation of vegetarians. We could also surmise that treating meat-eating as central to the identity might make the person more engaged in the negative vegetarian stereotypes, e.g., the assumptions that male vegetarians are perceived as more feminine than meat-eaters, especially vegetarians for ethical (more "feminine") reasons.

It is worth noting that a low rating of traits associated with femininity does not necessarily mean that women have a better perception of ethical vegetarians. The studies on spouse selection in the evolutionary approach show that when looking for a partner, women value qualities such as warmth and trustworthiness ("feminine" traits in this study) much more than men do (Fletcher et al., 2004). Thus, the lower scores on the criteria important in choosing a partner reflect a devaluation of vegetarians.

When discussing the significant effects, it should be noted that the observed effect sizes were relatively small, even compared to the typically smaller effect sizes found in social psychology studies (Schäfer & Schwarz, 2019). This may be due to the fact that, beyond dietary similarity, many other factors play a role in mate selection, such as physical appearance, social status (Li et al., 2013), financial prospects (Buss et al., 2001), and personality characteristics (Botwin et al., 1997). Additionally, individuals differ in extend



to which they prioritize these characteristics, and this variation is not limited to gender differences (Li et al., 2013). Furthermore, there has been a cultural evolution in the qualities people consider important when selecting a marriage partner, with significant changes in values documented over a 57-year period (Buss et al., 2001). Combined with changing understanding of masculinity, this highlights the need for further exploration of differences in mate selection.

Future Directions

The presented study has several implications. Firstly, it is worth noting that efforts to understand the vegetarian stereotype and its connection to masculinity may contribute to a better understanding of why men are less willing to become vegetarian. Efforts so far to change the non-masculine vegetarian stereotype are still based on hegemonic masculinity and, therefore, still rely on the male stereotype. Therefore, it might be useful to develop intervention aimed not at embedding vegetarianism in the stereotype of masculinity but at trying to create a new concept of masculinity, taking into account characteristics that are typical of vegetarians, such as sensitivity and empathy. It is worth noting that this stereotype is only relevant in the assessment of men, hence, the perception of women should also be taken into account.

It would also be interesting to see the extent to which participants embrace traditional gender roles in general (e.g., using the Traditional Masculinity-Femininity (TMF) scale), and the degree to which their model of masculinity is a traditional hegemonic model or rather includes other types of masculinity, such as hybrid masculinity. Women who reject traditional masculinity based on strength and dominance may perceive male vegetarians differently than those who embrace traditional masculinity. This, in turn, may explain why for some women a vegetarian man is "not a real man", while for others (with a less traditional perception of masculinity) vegetarianism may not affect a man's perception or may even enhance their attractiveness. This needs further exploration in future research.

Although eating meat is traditionally associated with power and status (Modlinska et al., 2020), some research shows that this association may be changing, potentially affecting the perceptions of meat eaters (and non-meat eaters). Studies show that there is a connection between prestige and preference for organic food products (e.g., Folwarczny et al., 2023). As veg*n meals have a lower ecological impact than meat-based meals (Takacs et al., 2022), preference for meatless products may also be linked to prestige, status, and thus make men who prefer such products (especially for ecological reasons) seem more attractive. Future research would benefit in considering the role of orientations toward prestige and dominance not only in food preferences but also in perception of different dieters.

Another important topic for future exploration is to observe how men (regardless of sexual orientation) evaluate other men. The present study examined only perceptions of



opposite-sex targets among heterosexuals. It is important to examine what men think of male vegetarians and their masculinity. This seems important because, as mentioned earlier, traditional masculinity may be valued by men but not by society in general (Iacoviello et al., 2022). Men may, therefore, regard vegetarian men as even less masculine than women do.

Limitations

Only heterosexual individuals participated in the present study. In the context of vegetarianism, it would be interesting to observe how masculinity performs when it is conceptualized outside a heteronormative framework. Gay men, functioning in a patriarchal society, are frequently subjected to scrutiny and judgment from both their male peers and women regarding their adherence to masculine norms and expectations (Fields et al., 2015). The masculinities of male subgroups who do not belong to the socially dominant group (gay men) are often referred to as compensatory masculinities (Connell, 2020). These masculinities are developed as a response to being denied access to the power and authority of the dominant group. Studies of gay men have identified definitions of masculinity that are derived from exaggerated traditional masculine roles and stereotypical behaviors. Thus, it would be interesting to observe how gay men approach other gay men who further undermine gender roles with their rejection of meat eating.

In addition, several studies on spouse selection show that people use different criteria in the selection of short-term and long-term relationships (Jonason et al., 2013; Li & Kenrick, 2006; Regan et al., 2000), and that different traits might be perceived as attractive in different contexts (e.g., Snyder et al., 2008). Moreover, studies show that while the choice of eco-friendly products may be undesirable for short-term relationships (green-feminine stereotype), for long-term relationships it can be a signal of a man's commitment (Borau et al., 2021). It is possible that, similarly, in the case of vegetarianism, in the context of long-term relationships, vegetarianism can signal cooperation, warmth, and altruism (Bhogal et al., 2019), thus exemplifying the greater attractiveness of a vegetarian male partner. In this study, participants were not asked to think of establishing a long-term relationship or marrying the person they viewed in the profile. Perhaps gender roles do not become deciding factors until a couple plans to have a life together, e.g., by moving in together, marrying, or having children (Chappetta & Barth, 2016). Future studies should differentiate various types of relationship involvement.

Lastly, the study was conducted in the specific Polish context, with a strong meateating tradition, and a traditional, heteronormative family model (Golebiowska, 2014). Previous studies on personal relationships in the Polish context underscore the crucial role of traditional values, still highly valued in Poland despite generational changes (Fitzpatrick et al., 2014). In the context of this paper, attachment to traditional values and the traditional family model promoted by the highly influential Catholic Church may explain the reluctance to enter relationships with those who "deviate from the norm",



e.g., vegetarians. In addition, our study shows that traditional dating scripts, still present in Poland, may translate to perceptions of a potential partner. However, this effect should be confirmed in cross-cultural studies.

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Ethics Statement: Research has been approved by the Ethics Committee at the Faculty of Psychology, University of Warsaw (Ref: 24/11/2021). Informed consent has been obtained from all respondents prior to their participation in the study.

Data Availability: The data for this study, alongside the materials, are available at the Open Science Framework (see Adamczyk, 2024).

Supplementary Materials

For this article, the following Supplementary Materials are available (see Adamczyk, 2024):

- Dataset
- · Questionnaire with a list of measures used in the study
- Experimental manipulation (original Tinder profiles used in the study)

Index of Supplementary Materials

Adamczyk, D. (2024). Dating a vegetarian? Perception of masculinity, attractiveness, and the willingness to date vegetarians [Data, materials]. OSF. https://osf.io/gek2d

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