Supplementary Materials

Methods

Study 1

Monte Carlo Power Analysis for Indirect Effects

A Monte Carlo power analysis for indirect effects was performed through an online application [22]. The results show that a power of 0.80 ($p < 0.05$) is reached with 143 participants in a model with two parallel mediators. Building on the correlations indicated in previous studies [19,25], we assumed correlations of r = 0.4 between the independent variable X, and the mediators M, and the dependent variable Y. We assumed correlations of r = 0.45 between the mediators M and the dependent variable Y, and correlations of r = 0.5 between the mediators themselves. As we planned to include three mediators in our analyses (i.e., perceptions of salience, descriptive norms, and injunctive norms) and to exclude participants who identified the study aim, we increased the sample size to 200 participants (roughly 100 participants in each condition).

Online Pilot Study: Food Options

In total, 123 Dutch students and employees of Wageningen University and Research consented to participate in the online pilot study and gave permission to use the obtained data, of which 100 participants were included in the analytic sample (88% students, 83% female, M age = 23.66 years, SD = 5.41)[1]. Participants who considered themselves as vegetarians were ineligible to participate in the study. Seven different front of pack images of plant-based burgers (e.g., lentil burgers and vegetable burgers) and 13 different front of pack images of animal source burgers (e.g., beef burgers and chicken burgers) were included in the pilot study. All products were from the same Dutch private label brand and included two units (i.e., burgers). Participants were instructed to imagine themselves eating the shown burgers with a bun while rating the different burgers on liking ('how tasty do you think this burger is?' (1: Not at all tasty to 7: Extremely tasty) and familiarity ('how familiar are you with this burger?' ranging from 1: Not at all familiar to 7: Extremely familiar). The order of presentation of categories (plant-based food products and animal source food products) was (evenly) randomized using Qualtrics, as well as the order of presentation of images within each category. Two different options per category that scored highest on liking and familiarity items were selected for inclusion in the experiment, thereby variety within each category was ensured (e.g., when two different beef burgers scored highest within the animal source foods category, only the beef burger that scored highest was included in the experiment). The plant-based burgers included were vegetarian grilled burgers (based on soy protein and wheat protein: 180 g, 279 kcal; M liking = 4.46 (SD = 1.28), M familiarity = 2.49 (SD = 1.70)) and vegetable burgers (vegetable mix including carrots, garden peas, corn and bell pepper: 200 g, 340 kcal; M liking = 4.54 (SD = 1.40), M familiarity = 2.76 (SD = 1.95)). The animal source burgers included were beef hamburgers (200 g, 530 kcal; M liking = 5.49 (SD = 1.21), M familiarity = 5.42 (SD = 1.77)) and chicken burgers (205 g, 584 kcal; M liking = 5.13 (SD = 1.29), M familiarity = 4.42 (SD = 2.05)).

Hunger, Liking, Familiarity, and Frequency of Meat Consumption

Hunger was measured by asking: 'How hungry do you feel right now?' (1: Not at all hungry to 7: Extremely hungry).

Liking was measured by asking: 'How tasty do you think this [food option] is?' (1: Not at all tasty to 7: Extremely tasty). Two single scores were calculated, with the scores including the sum of (a) two liking ratings of plant-based foods and (b) two liking ratings of animal source foods.

Familiarity was measured by asking: 'How familiar are you with this [food option]?' (1: Not at all familiar to 7: Extremely familiar). Two single scores were calculated, with the scores including the

[1] Participants who did not complete the questionnaire were excluded from analyses (n =11), as well as participants who indicated that they considered themselves as vegetarians (n = 9) and participants who indicated any allergies or intolerances for the shown burgers (n = 3).

sum of (a) two familiarity ratings of plant-based foods and (b) two familiarity ratings of animal source foods.

Frequency of meat consumption was measured by asking [28]: 'How many days per week do you usually eat your main meal with meat (including chicken)?' (0: Never to 7: Daily).

Exclusion Criteria

The quality control question stated [27]: 'For quality control purposes, please enter 'D' as the answer to this question' (answer options: A, B, C, D, E, F, G). A dichotomous variable was created with two categories: correct and incorrect.

Awareness of the study aim was measured by asking [19]: 'What do you think the aim of the study was?' (open-ended question). Participants who connected the increased availability of products to food choice or salience and normality measures were identified as having guessed the study aim (independently rated by two researchers with 100% agreement).

Study 2

Monte Carlo Power Analysis for Indirect Effects

A Monte Carlo power analysis for indirect effects was performed through an online application [22]. The results showed that a power of 0.85 ($p < 0.05$) is reached with 315 participants in a model with two parallel mediators. Building on the correlations indicated in Study 1 (Supplementary Table S1), we assumed correlations of r = 0.3 between the independent variable X, and the mediators M, and the dependent variable Y. We assumed correlations of r = 0.30 between the mediators M and the dependent variable Y, and correlations of r = 0.40 between the mediators themselves. As we planned to include three mediators in our analyses (i.e., perceptions of salience, descriptive norms, and injunctive norms), and to exclude participants who considered themselves as vegetarians and who identified the study aim, we expected a medium effect size.

Online Pilot Study: Food Options

The online pilot study followed the same procedure as the pilot study described for Study 1. In total, 80 Dutch students and employees of Wageningen University and Research consented to participate in the pilot study and gave permission to use the obtained data, of which 60 female participants were included in the analytic sample (86.7% students, M age = 23.50 years, SD = 4.26)[2]. Participants who considered themselves as vegetarians were ineligible to participate in the study. Three different front of pack images of plant-based pasta sauces (e.g., Basilico with basil) and three different front of pack images of animal source pasta sauces (e.g., Bolognese with beef) were included in the pilot study. All products were from the same A-label brand (Grand'Italia) and contained the same amount (260 g). Participants were instructed to imagine themselves eating the shown pasta sauces with pasta (carbohydrates) while rating the pasta sauces on liking and familiarity items. Two different options per category that scored highest on these items were selected for inclusion in the experiment. The plant-based pasta sauces included were Basilico with basil (tomato sauce with basil: 260 g, 187 kcal; M liking = 5.72 (SD = 1.20), M familiarity = 4.73 (SD = 2.01)) and Toscana with sundried tomatoes (tomato sauce with sundried tomatoes: 260 g, 231 kcal; M liking = 5.02 (SD = 1.35), M familiarity = 3.02 (SD = 1.89)). The animal source pasta sauces included were Bolognese with beef (tomato sauce with beef: 260 g, 265 kcal; M liking = 4.92 (SD = 1.20), M familiarity = 3.78 (SD = 1.98)) and Carbonara with pancetta (cream sauce with bacon: 260 g, 569 kcal; M liking = 4.10 (SD = 1.62), M familiarity = 3.35 (SD = 1.95)).

[2] Participants who did not complete the questionnaire were excluded from analyses ($n = 3$), as well as male participants ($n = 12$), participants who indicated to consider themselves as vegetarians ($n = 3$) and participants who indicated any allergies or intolerances for the shown pasta sauces ($n = 2$).

Results

Study 1

Sensitivity Analysis

Only results of primary analyses that were significantly impacted by the inclusion of significantly correlated covariates were reported (see Supplementary Table S1 for the correlations).

The results of an ANCOVA showed that the significant effect of condition on descriptive norms regarding plant-based foods disappeared ($F(1, 175) = 1.75$, $p = 0.19$, $\eta_p^2 = 0.01$) when we controlled for sex, education, liking for plant-based and animal source foods, familiarity with plant-based foods, meat attachment, and frequency of meat consumption.

The results of a linear regression showed that the effect of condition on perceptions of descriptive norms regarding plant-based foods was no longer significant ($B = -0.41$, 95% CI (-1.03, 0.20)) when we controlled for sex, education, liking for plant-based and animal source foods, familiarity with plant-based foods, meat attachment, and frequency of meat consumption; nor were the results of a logistic regression examining the effect of descriptive norms regarding plant-based foods on hypothetical food choice any longer significant ($B = 0.13$, 95% CI (0.88, 1.48)) when we controlled for sex, liking for plant-based and animal source foods, familiarity with plant-based foods, meat attachment, and frequency of meat consumption. Consequently, conditions for mediation were no longer met.

Study 2

Additional Mediation Results

Relative to the increased animal source foods condition, physical exposure to an equal availability of plant-based and animal source foods did not indirectly affect food choice through perceptions of descriptive norms regarding either plant-based (relative indirect effect = 0.08, SE = 0.07, 95% CI (-0.03, 0.25)) or animal source foods (relative indirect effect = 0.04, SE = 0.06, 95% CI (-0.06, 0.16)). Relative to the control condition, physical exposure to an increased availability of plant-based foods did not indirectly affect food choice through perceptions of descriptive norms regarding either plant-based (relative indirect effect = 0.06, SE = 0.06, 95% CI (-0.06, 0.20)) or animal source foods (relative indirect effect = 0.10, SE = 0.07, 95% CI (-0.01, 0.25)).

Sensitivity Analysis

Only results of primary analyses that were significantly impacted by the inclusion of significantly correlated covariates were reported (see Supplementary Table S3 for the correlations).

The results of an ANCOVA and post-hoc Bonferroni-corrected pairwise comparisons examining the effect of condition on perceptions of descriptive norms regarding animal source foods showed that, when we controlled for liking for, and familiarity with, animal source foods, the effect between the control condition and the plant-based foods condition became marginally significant (in addition to the significant effect between the increased animal source versus the plant-based foods condition). Compared to participants in the control condition, participants who were physically exposed to an increased availability of plant-based foods reported a marginally significantly lower descriptive norm regarding animal source foods ($p = 0.09$).

The results of a multiple linear regression examining the effect of condition on perceptions of descriptive norms regarding animal source foods showed that, when we controlled for liking for, and familiarity with, animal source foods, the effect between the control condition and the plant-based foods condition became significant ($B3 = -0.67$, 95% CI (-1.27, -0.07)). However, the results of a logistic regression showed that the effect of descriptive norms regarding plant-based foods on food choice was no longer significant ($B = -0.07$, 95% CI (0.80, 1.08)) when we controlled for liking for plant-based and animal source foods, familiarity with plant-based and animal source foods, meat attachment, and frequency of meat consumption; nor were the results of a logistic regression examining the effect of descriptive norms regarding animal source foods on food choice any longer significant ($B = -0.01$, 95%

CI (0.84, 1.17)) when we controlled for liking for plant-based and animal source foods, familiarity with plant-based and animal source foods, meat attachment, and frequency of meat consumption. Consequently, conditions for mediation were no longer met.

Probing the significant interaction between condition (increased animal source versus plant-based foods condition) and meat attachment on food choice showed that, when we controlled for liking for plant-based and animal source foods, familiarity with plant-based and animal source foods, and frequency of meat consumption, among participants who reported a high meat attachment (1 SD above the mean), increasing the availability of plant-based (versus animal source) foods marginally significantly (rather than significantly) increased the likelihood of selecting a plant-based food option (B = 1.19, SE = 0.65, 95% CI (-0.07, 2.46), p = 0.06). Conversely, among participants who reported a low meat attachment (1 SD below the mean), increasing the availability of plant-based (versus animal source) foods marginally significantly decreased the likelihood of selecting a plant-based food option (B = -1.34, SE = 0.70, 95% CI (-2.71, 0.04), p = 0.06).

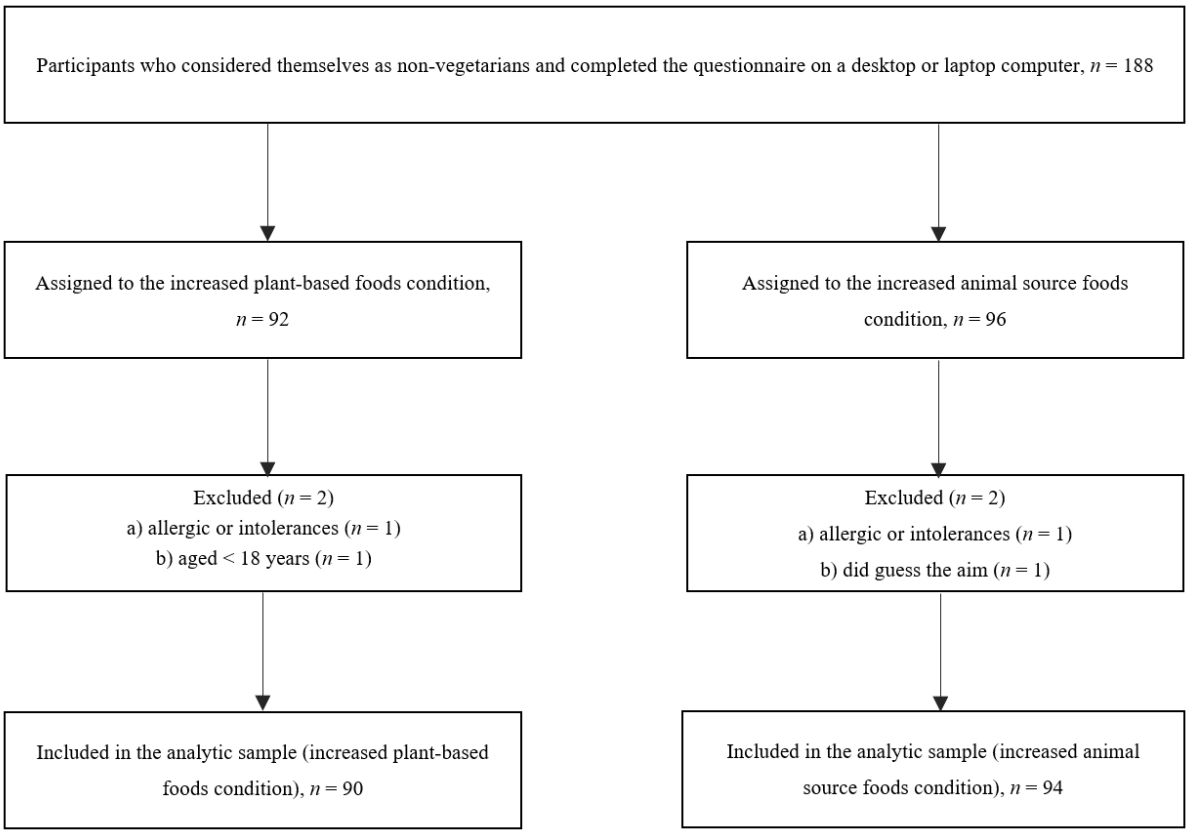

Figure S1. Participant flowchart (Study 1).

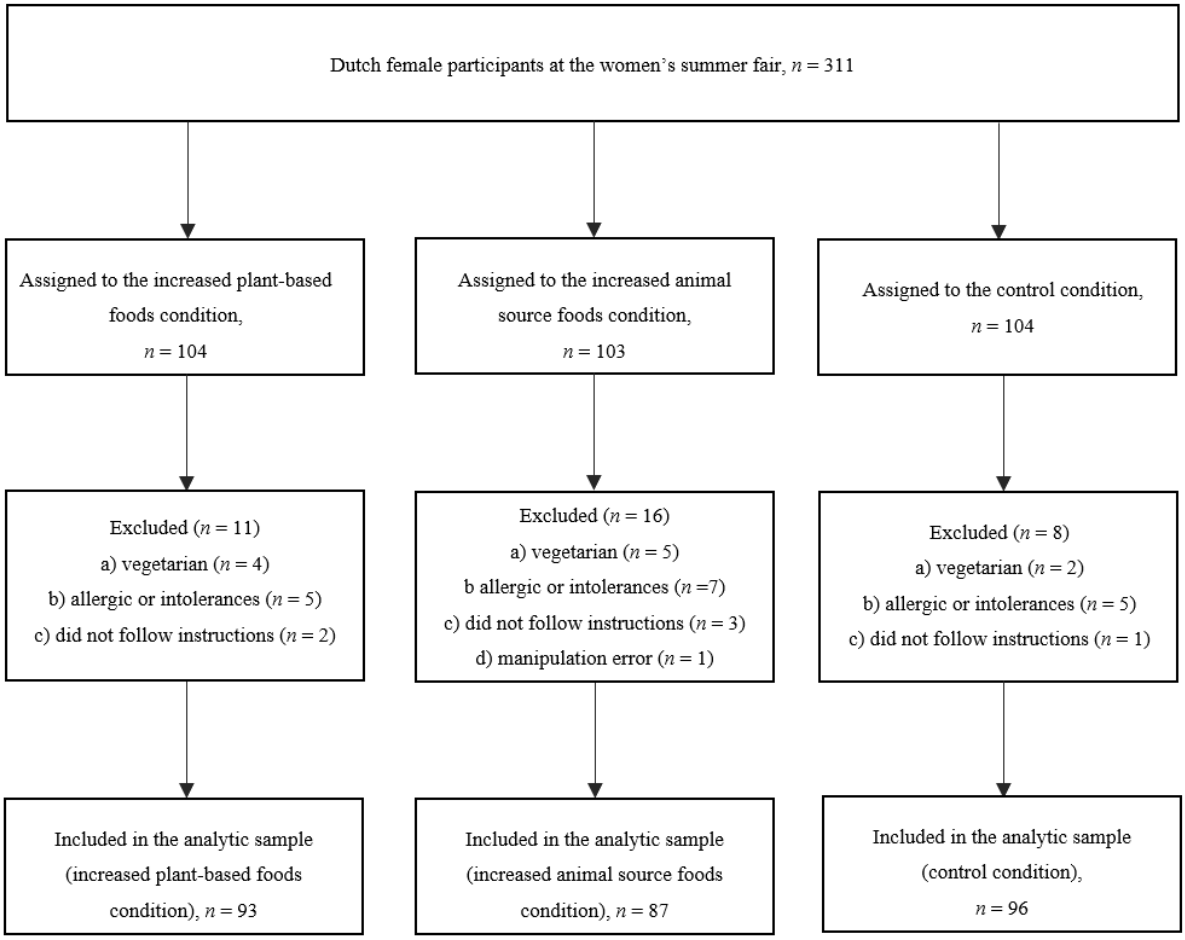

Figure S2. Participant flowchart (Study 2). The main reason for exclusion because of noncompliance with the instructions was quitting during the experiment and/or being incapable of filling in the questionnaire. The exclusion because of a manipulation error was caused by an incorrect presentation of the availability manipulation given the condition to which the participant was assigned.

Table S1. Pearson correlations between primary variables (n = 184, Study 1).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Age (y)	-																	
2. Sex (female) [a]	.10	-																
3. Nationality (Dutch) [a]	-.09	-.02	-															
4. Education (academic education) [a]	.50**	.13	-.06	-														
5. Hunger	.07	-.06	-.06	.06	-													
Liking:																		
6. Plant-based foods	.00	.20**	-.03	.02	.10	-												
7. Animal source foods	-.25**	-.13	-.10	-.14	.02	-.16*												
Familiarity:																		
8. Plant-based foods	.07	-.05	.05	.06	.08	.39**	-.03	-										
9. Animal source foods	-.04	-.12	.04	.05	.02	.04	.31**	.25**	-									
10. Meat attachment	-.14	-.36**	.06	-.10	.13	-.50**	.35**	-.17*	.11	-								
11. Frequency of meat consumption	-.17*	-.27**	.15*	-.21**	-.06	-.47**	.27**	-.29**	.02	.62**	-							
12. Hypothetical food choice [a]	.01	.26**	-.03	.11	-.06	.34**	-.18*	.27**	-.06	-.35**	-.32**	-						
Perceptions of salience:																		
13. Plant-based foods	.08	.11	-.07	.02	.18*	.34**	-.21**	.17*	-.09	-.28**	-.18*	.25**	-					
14. Animal source foods	-.09	-.01	-.10	.06	.00	-.10	.24**	-.06	.26**	.30**	.17*	-.17*	-.05	-				
Perceptions of descriptive norms:																		
15. Plant-based foods	.12	.32**	-.02	.20**	.09	.43**	-.30**	.18*	-.10	-.35**	-.27**	.28**	.27**	-.09	-			
16. Animal source foods	-.04	.02	.01	.03	-.06	-.14	.39**	-.07	.30**	.21**	.19**	-.28**	-.18*	.42**	-.31**	-		
Perceptions of injunctive norms:																		
17. Plant-based foods	.01	.07	-.01	.07	.09	.29**	-.10	.16*	.09	-.18*	-.15*	.28**	.27**	-.07	.42**	-.24**	-	
18. Animal source foods	-.12	-.15*	.10	-.05	-.00	-.18*	.27**	-.03	.23**	.23**	.14	-.14	.03	.20**	-.18*	.35**	.02	-
Mean (or number)	27.30	58	173	53	3.40	7.52	10.88	4.87	10.51	4.52	5.72	24	7.78	9.60	6.31	10.25	6.13	7.72
SD (or %)	9.26	31.5%	94.0%	28.8%	1.60	2.60	1.77	3.18	2.97	1.15	1.70	13.0%	2.33	2.16	2.42	1.84	2.77	2.87

* $p < 0.05$. ** $p < 0.01$. [a] Spearman correlation.

Table S2. Individual components of the indirect effect of condition on hypothetical food choice for perceptions of salience, descriptive norms, and injunctive norms (n = 184, Study 1).

	Condition–mediator relationship [a]	**Mediator–hypothetical food choice relationship** [b]
	***B* (95% CI)**	***B* (95% CI)**
Perceptions of salience		
Plant-based foods	-0.33 (-1.00, 0.35)	0.33 (1.14, 1.71)
Animal source foods	0.18 (-0.45, 0.81)	-0.23 (0.65, 0.97)
Perceptions of descriptive norms		
Plant-based foods	-0.85 (-1.54, -0.15)	0.34 (1.17, 1.69)
Animal source foods	0.40 (-0.13, 0.94)	-0.42 (0.52, 0.84)
Perceptions of injunctive norms		0.30 (1.15, 1.59)
Plant-based foods	0.02 (-0.79, 0.82)	
Animal source foods	-0.21 (-1.04, 0.63)	-0.14 (0.75, 1.00)

[a] Linear regression. [b] Logistic regression.

Table S3. Pearson correlations between primary variables (n = 276, Study 2).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Age (y)	-																		
2. Time of the day	0.03	-																	
3. Nationality (Dutch) [a]	-0.10	0.07	-																
4. Education (academic education) [a]	-0.27**	-0.04	0.05	-															
5. Hunger	0.02	0.08	0.01	0.03	-														
Liking:																			
6. Plant-based foods	0.11	0.01	0.02	0.02	0.18**	-													
7. Animal source foods	0.00	0.08	0.07	-0.14*	0.13*	0.09	-												
Familiarity:																			
8. Plant-based foods	0.19**	-0.03	0.15*	-0.06	0.08	0.46**	0.07	-											
9. Animal source foods	-0.03	0.02	0.13*	-0.03	0.10	0.11	0.53**	0.37**	-										
10. Meat attachment	-0.09	0.17**	-0.01	-0.11	0.07	-0.03	0.28**	-0.12*	0.08	-									
11. Frequency of meat consumption	-0.14*	0.08	-0.09	-0.08	0.03	-0.03	0.17**	-0.11	0.04	0.58**	-								
12. Food choice [a]	0.05	-0.03	0.03	0.09	0.01	0.37**	-0.46**	0.21**	-0.26**	-0.29**	-0.22**	-							
Perceptions of salience:																			
13. Plant-based foods	0.21**	0.01	0.06	-0.02	0.14*	0.46**	-0.15*	0.29**	0.01	-0.16**	-0.18**	0.33**	-						
14. Animal source foods	-0.03	0.03	0.04	-0.01	0.18**	-0.04	0.35**	-0.10	0.23**	0.05	0.05	-0.26**	0.01	-					
Perceptions of descriptive norms:																			
15. Plant-based foods	0.20**	-0.07	0.04	-0.02	0.13*	0.35**	-0.10	0.38**	0.05	-0.08	-0.10	0.20**	0.56**	-0.01	-				
16. Animal source foods	-0.03	-0.09	0.03	-0.05	0.05	0.08	0.34**	0.04	0.31**	0.06	-0.01	-0.17**	0.07	0.31**	0.00	-			
Perceptions of injunctive norms:																			
17. Plant-based foods	0.22**	-0.07	-0.01	-0.14*	0.11	0.32**	-0.00	0.40**	0.12	-0.05	-0.12	0.08	0.45**	0.02	0.63**	0.02	-		
18. Animal source foods	0.08	0.01	0.04	-0.11	0.08	0.04	0.29**	0.05	0.30**	0.06	-0.05	-0.16**	0.08	0.29**	-0.02	0.57**	0.23**	-	
19. Perceived autonomy	-0.01	0.00	-0.04	-0.05	0.12*	0.38**	0.21**	0.18**	0.23**	-0.01	-0.10	0.14*	0.19**	0.19**	0.16**	0.26**	0.18**	0.13*	-
Mean (or number)	47.22	13:49	268	19	3.36	9.69	8.99	6.91	7.78	4.29	5.69	149	8.95	9.22	9.00	9.34	8.21	8.39	5.67
SD (or %)	15.38	2:09	97.1%	6.9%	1.68	2.61	2.95	3.67	3.80	1.02	1.68	54.0%	2.59	2.47	2.41	2.26	2.72	2.59	1.07

* $p < 0.05$. ** $p < 0.01$. [a] Spearman correlation.

Table S4. Individual components of the indirect effect of condition on food choice for perceptions of salience, descriptive norms, and injunctive norms (*n* = 276, Study 2).

	Condition–mediator relationship [a]	**Mediator–food choice relationship** [b]
	***B* (95% CI)**	***B* (95% CI)**
Perceptions of salience		
Plant-based foods	*B1* = 0.21 (-0.55, 0.98)	
	B2 = 0.08 (-0.68, 0.83)	0.30 (1.21, 1.50)
	B3 = 0.14 (-0.61, 0.88)	
Animal source foods	*B1* = 0.28 (-0.45, 1.01)	
	B2 = 0.29 (-0.43, 1.01)	-0.23 (0.71, 0.88)
	B3 = -0.01 (-0.72, 0.70)	
Perceptions of descriptive norms		
Plant-based foods	*B1* = 0.85 (0.14, 1.55)	
	B2 = 0.50 (-0.20, 1.20)	0.16 (1.06, 1.31)
	B3 = 0.35 (-0.34, 1.03)	
Animal source foods	*B1* = -0.89 (-1.54, -0.23)	
	B2 = -0.25 (-0.90, 0.41)	-0.15 (0.77, 0.96)
	B3 = -0.64 (-1.28, 0.001)	
Perceptions of injunctive norms		
Plant-based foods	*B1* = 0.46 (-0.34, 1.26)	
	B2 = 0.08 (-0.71, 0.87)	0.05 (0.97, 1.15)
	B3 = 0.38 (-0.40, 1.16)	
Animal source foods	*B1* = -0.44 (-1.20, 0.32)	
	B2 = 0.03 (-0.72, 0.79)	-0.13 (0.80, 0.97)
	B3 = -0.48 (-1.22, 0.27)	

[a] Multiple linear regression. [b] Logistic regression. Note: *B1* = increased animal source foods condition versus increased plant-based foods condition. *B2* = increased animal source foods condition versus control condition. *B3* = control condition versus increased plant-based foods condition.