

Online Appendix for “How Disgust Influences Health Purity Attitudes”

Table A1. Does Disgust Sensitivity Moderate the Effects of State Disgust Manipulations?

Study, Sample:	Study 1, Students					Study 3, Mturk				
	GMOs	Organics	Obesity	Cigarettes	Purchasing	GMOs	Organics	Vaccination	Drug Laws	Cigarettes
Outcome:	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	Ord. Logit
Treatment * Disgust Sensitivity	0.08	0.11	0.02	0.18	0.09	0.22 *	0.24 **	-0.01	0.02	2.06 ***
	(.14)	(.13)	(.14)	(.14)	(.14)	(.10)	(.10)	(.11)	(.10)	(.46)
Pathogen Disgust	0.10	0.12	0.11	0.05	-0.01	0.02	0.11	0.04 **	-0.12	0.76
	(.10)	(.09)	(.10)	(.10)	(.10)	(.10)	(.10)	(.11)	(.10)	(.17)
Disgust Treatment	0.22	0.22 *	0.24 *	-0.10	0.02	0.06	0.00	0.23	0.04	0.78
	(.13)	(.11)	(.13)	(.14)	(.14)	(.08)	(.08)	(.08)	(.08)	(.14)
Sexual Disgust						0.07	0.03	0.08	0.30 ***	0.99
						0.07	0.07	0.07	0.07	0.15
Moral Disgust						-0.03	-0.06	-0.21 **	-0.11	1.19
						0.06	0.06	0.06	0.06	0.15
Ideology	-0.04	-0.18 **	-0.25 ***	-0.11	-0.05	-0.16 **	-0.09	0.24 ***	0.35 ***	0.89
	(.07)	(.06)	(.07)	(.07)	(.07)	(.05)	(.05)	(.06)	(.05)	(.10)
Education	-0.05	-0.01	-0.05	0.18 *	0.02	-0.09	-0.02	-0.05	0.01	1.22
	(.07)	(.07)	(.07)	(.07)	(.07)	(.05)	(.05)	(.06)	(.05)	(.14)
Male	-0.21	-0.45 **	-0.08	-0.10	-0.13	-0.51 ***	-0.72 ***	0.08	0.00	0.46 **
	(.14)	(.13)	(.14)	(.14)	(.15)	(.12)	(.12)	(.13)	(.12)	(.12)
Age	0.10	0.04	-0.08	0.00	-0.02	0.07	0.09	0.03	0.06	1.11
	(.07)	(.06)	(.07)	(.07)	(.07)	(.06)	(.05)	(.06)	(.05)	(.13)
Income						0.02	-0.04	-0.03	0.00	1.32 *
						(.05)	(.05)	(.06)	(.05)	(.15)
Constant	-0.01	0.11	-0.09	0.10	0.05	0.30 **	0.38 ***	-0.06	0.05	
	(.12)	(.12)	(.12)	(.13)	(.13)	(.10)	(.10)	(.11)	(.09)	
Observations	211	211	211	211	211	310	310	310	310	310
R-squared	0.07	0.16	0.11	0.07	0.01	0.20	0.22	0.14	0.29	0.04
Treatment Effect, High Disgust Sensitivity (+1 SD)	0.30	0.32	0.25	0.10	0.12	0.23	0.34	0.03	-0.10	0.11†
90% Confidence Interval	[-.03, .60]	[.02, .63]	[-.06, .55]	[-.21, .41]	[-.23, .45]	[-.05, .53]	[.08, .62]	[-.28, .33]	[-.38, .16]	[-.04, .25]
Treatment Effect, Low Disgust Sensitivity (-1 SD)	0.14	0.11	0.22	-0.29	-0.06	-0.20	-0.13	0.04	-0.13	-0.23
90% Confidence Interval	[-.18, .44]	[-.21, .42]	[-.09, .54]	[-.61, .03]	[-.39, .27]	[-.49, .10]	[-.40, .17]	[-.25, .35]	[-.41, .13]	[-.37, -.10]

* p < .05. Significance tests are one-tailed for tests of our hypotheses (bold) and two-tailed for control variables because we do not have directional expectations. Standard errors in parentheses.

Lower panel displays estimated treatment effects at high and low levels of disgust sensitivity and 90% confidence intervals (to reflect one-tailed tests).

†Estimates reflect the change in probability of selecting the top category (strongly favor/ban).

Table A2. Does Gender Moderate the Effects of Disgust?

Outcome:	GMOs			Organics			Purchasing	Risk	Food Regulation		Environ. Regulation	
Study, Sample:	1, Mturk	2, Students	3W2, Mturk	1, Mturk	2, Students	3W2, Mturk	1, Mturk	2, Student	2, Student	3W1, Mturk	2, Student	3W1, Mturk
Model:	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	Ord. Logit	OLS	Ord. Logit
Male * Pathogen Disgust	-0.38 (.32)	-0.05 (.33)	-0.25 (.16)	-0.38 (.29)	-0.16 (.35)	-0.26 (.16)	-0.17 (.16)	-0.03 (.17)	-0.11 (.31)	-0.24 (.18)	-0.59 * (.27)	-0.15 (.18)
Male * Disgust Treatment	0.07 (.45)		-0.61 * (.33)	0.38 (.42)		-0.80 ** (.34)	-0.25 (.24)					
Pathogen Disgust	0.48 * (.22)	0.39 * (.20)	0.40 ** (.13)	0.55 ** (.20)	0.62 ** (.22)	0.34 ** (.14)	0.12 (.11)	0.10 (.11)	0.30 (.19)	0.40 * (.16)	0.50 ** (.17)	0.23 (.16)
Disgust Treatment	0.32 (.32)		0.40 (.25)	0.15 (.30)		0.65 ** (.26)	0.14 (.17)					
Sexual Disgust			0.10 (.08)			0.06 (.08)				-0.19 * (.09)		-0.10 (.09)
Moral Disgust			-0.03 (.07)			-0.06 (.07)				0.06 (.08)		0.07 (.08)
Ideology	-0.04 (.07)	-0.12 (.07)	-0.16 ** (.05)	-0.16 ** (.06)	-0.15 * (.07)	-0.10 (.06)	-0.03 (.03)	-0.01 (.04)	-0.28 *** (.06)	-0.28 *** (.07)	-0.30 *** (.06)	-0.41 *** (.07)
Education	-0.12 (.18)		-0.17 (.10)	-0.02 (.16)		-0.04 (.10)	0.03 (.09)			-0.03 (.11)		0.03 (.11)
Male	0.86 (1.10)	-0.77 (1.12)	0.69 (.79)	0.29 (1.02)	-0.17 (1.18)	0.49 (.81)	0.59 (.57)	-0.15 (.59)	0.23 (1.05)	0.56 (.87)	1.90 * (.92)	0.35 (.88)
Age	0.01 (.01)		0.01 (.01)	0.01 (.01)		0.01 (.01)	0 (.00)			0.01 (.01)		0.01 (.01)
Income		0.03 (.05)	0.02 (.06)		0.00 (.05)	-0.05 (.07)		-0.01 (.03)	0.07 (.05)	-0.05 (.07)	-0.02 (.04)	-0.08 (.07)
Constant	3.15 *** (.94)	4.01 *** (.78)	3.93 *** (.81)	3.90 *** (.87)	3.61 *** (.83)	3.96 *** (.83)	2.68 *** (.49)	2.89 *** (.41)	5.32 *** (.74)		5.56 *** (.64)	
Observations	211	170	310	211	170	310	211	171	170	400	170	400
R-squared	0.08	0.18	0.20	0.17	0.17	0.22	0.02	0.04	0.13	0.03	0.18	0.04

Standard errors in parentheses. * p < .05; ** p < .01; *** p < .001. Significance tests are one-tailed for tests of our hypotheses (bold) and two-tailed for control variables because we do not have directional expectations. Coefficients are unstandardized.

Table A2 (Continued). Does Gender Moderate the Effects of Disgust?

Outcome:	Vaccinations			Obesity		Drug Laws			Cigarette Restrictions		
Study, Sample:	2, Student	3W1, Mturk	3W2, Mturk	1, Mturk	2, Students	2, Students	3W1, Mturk	3W2, Mturk	1, Mturk	3W1, Mturk	3W2, Mturk
Model:	OLS	Ord. Logit	OLS	OLS	OLS	OLS	OLS	OLS	OLS	Ord. Logit	Ord. Logit
Male * Pathogen Disgust	0.42	-0.04	-0.04	0.39	-0.12	-0.16	0.16	0.12	0.36	0.21	0.27
	(.29)	(.19)	(.15)	(.30)	(.31)	(.34)	(.14)	(.16)	(.40)	(.18)	(.22)
Male * Disgust Treatment			-0.16	-0.20				-0.25	0.52		-1.10 **
			(.31)	(.42)				(.33)	(.58)		(.46)
Pathogen Disgust	0.04	0.27	0.30 **	0.06	0.23	0.42 *	-0.12	0.00	0.23	-0.12	-0.07
	(.18)	(.16)	(.12)	(.21)	(.19)	(.21)	(.12)	(.13)	(.28)	(.16)	(.19)
Disgust Treatment			0.15	0.49				-0.06	-0.45		0.34
			(.24)	(.30)				(.25)	(.41)		(.37)
Sexual Disgust		0.19 *	0.09				0.42 ***	0.36		-0.02	0.02
		(.09)	(.07)				(.07)	(.08)		(.09)	(.11)
Moral Disgust		-0.17 *	-0.21 **				-0.07	-0.14		0.04	0.10
		(.08)	(.06)				(.06)	(.07)		(.08)	(.09)
Ideology	0.07	0.27 ***	0.20 ***	-0.23 ***	-0.20 ***	0.32 ***	0.28 ***	0.38	-0.13	-0.11	-0.06
	(.06)	(.06)	(.05)	(.06)	(.06)	(.07)	(.05)	(.05)	0.08	(.06)	(.07)
Education		-0.01	-0.09	-0.12			0.01	0.02	0.56 **	0.29 *	0.21
		(.11)	(.09)	(.16)			(.09)	(.10)	(.22)	(.11)	(.13)
Male	-1.88	0.55	0.40	-1.32	0.13	-0.01	-0.86	-0.45	-1.70	-1.62	-1.42
	(.99)	(.93)	(.74)	(1.02)	(1.05)	(1.14)	(.70)	(.80)	(1.39)	(.89)	(1.08)
Age		0.01	0.00	-0.01			0.01	0.01	0.00	0.00	0.01
		(.01)	(.01)	(.01)			(.01)	(.01)	(.02)	(.01)	(.01)
Income	-0.03	-0.01	-0.04		0.00	0.02	0.06	0.01		0.15 *	0.23 **
	(.04)	(.08)	(.06)		(.04)	(.05)	(.06)	(.07)		(.07)	(.09)
Constant	3.11 ***		1.44	4.87 ***	4.65 ***	1.14	1.92 **	1.70	4.03 ***		
	(.69)		(.76)	(.88)	(.73)	(.80)	(.72)	(.82)	(1.19)		
Observations		400	310	211	171	171	400	310	211	400	310
R-squared		0.04	0.14	0.11	0.08	0.18	0.25	0.30	0.07	0.02	0.04

Standard errors in parentheses. * p < .05; ** p < .01; *** p < .001. Significance tests are one-tailed for tests of our hypotheses (bold) and two-tailed for control variables because we do not have directional expectations. Coefficients are unstandardized.

Study 1 Materials

Disgust Manipulation

Control: Please write about an event that happened to you that involved a typical or everyday behavior. The event should be one that you recently experienced. We would like you to relive the experience as closely as possible. Please take a few minutes to write down as much detail as possible (i.e., four or more sentences).

Treatment: Please write about an event that happened to you that involved touching or seeing something physically disgusting. The event should be one that made you feel physically ill or sick to the stomach. We would like you to relive the experience as closely as possible. Please take a few minutes to write down as much detail as possible (i.e., four or more sentences).

Genetically Modified Foods ($\alpha = .85$)

Some foods contain genetically modified ingredients in order to make them less expensive or taste better. Some argue that the health risks of genetically modified food are unknown and that the process is unnatural, while others argue that genetically modified food poses no greater risk than conventional food. How strongly would you favor or oppose each of the following:

1. Mandatory labeling of foods containing genetically modified ingredients.
2. Banning foods containing genetically modified ingredients.
3. Banning genetically modified livestock, poultry, and fish.
 - Strongly oppose
 - Moderately oppose
 - Slightly oppose
 - Neither favor nor oppose
 - Slightly favor
 - Moderately favor
 - Strongly favor

Organic Foods ($\alpha = .84$)

How strongly would you favor or oppose each of the following policies?

1. Tax breaks for organic farmers who raise livestock or grow crops without the use of chemicals, pesticides or feed additives
2. Banning the use of chemical pesticides on food crops
3. Banning the use of hormones and antibiotics on livestock and poultry
 - Strongly oppose
 - Moderately oppose
 - Slightly oppose
 - Neither favor nor oppose

- Slightly favor
- Moderately favor
- Strongly favor

Obesity Policy ($\alpha = .71$)

How strongly would you favor or oppose each of the following policies?

1. A special local tax on junk food – like soda, chips, and candy – and using the money for programs to fight obesity?
2. A local law mandating that restaurants post nutritional information, such as calorie counts?
3. A local law that bans restaurants from serving sugary beverages larger than 16 ounces?
 - Strongly oppose
 - Moderately oppose
 - Slightly oppose
 - Neither favor nor oppose
 - Slightly favor
 - Moderately favor
 - Strongly favor

Cigarettes

How strongly do you favor or oppose a ban on smoking cigarettes in restaurants and bars?

- Strongly oppose
- Moderately oppose
- Slightly oppose
- Neither favor nor oppose
- Slightly favor
- Moderately favor
- Strongly favor

Prospective Shopping Behavior ($\alpha = .51$)

Thinking about your behavior over the next two weeks, how likely are you to do each of the following?

1. Shop at a natural foods store
2. Buy organic foods
3. Buy genetically modified foods (reversed)
 - Not likely at all
 - Not too likely
 - Somewhat likely
 - Very likely

- Extremely likely

Pathogen Disgust Sensitivity ($\alpha = .83$)

The following items describe a number of concepts. Please rate how disgusting you find the concepts in the items.

1. Seeing some mold on old leftovers in your refrigerator
 2. Standing close to a person who has body odor
 3. Shaking hands with a stranger who has sweaty palms
 4. Stepping on dog poop
 5. Accidentally touching a person's bloody cut
 6. Seeing a cockroach run across the floor
 7. Sitting next to someone who has red sores on their arm
- Not disgusting at all
 - Not too disgusting
 - Somewhat disgusting
 - Very disgusting
 - Extremely disgusting

Study 2 Materials

GMOs ($\alpha = .78$)

How strongly would you favor or oppose each of the following policies?

1. Banning genetically modified produce, such as fruits and vegetables
 2. Banning genetically modified, fish, livestock, and poultry
 3. Mandatory labeling of foods containing genetically modified ingredients
- Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose

Organic Foods ($\alpha = .82$)

1. Banning the use of chemical pesticides on food crops
 2. Banning the use of growth hormones on fish, poultry, and livestock
- Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose

- Moderately oppose
- Strongly oppose

Obesity ($\alpha = .84$)

Now we would like to ask you about your views on some proposed policies related to obesity. How strongly would you favor or oppose each of the following policies?

1. A special tax on junk food – like soda, chips, and candy – and using the money for programs to fight obesity
2. A local law requiring restaurants to post nutritional information, such as calories counts
3. A local law banning the sale of sugary beverages larger than 16 ounces
4. Banning the sale of junk food in public schools
5. Restructuring food stamps to provide greater incentives to eat healthier
6. Placing restrictions on advertising for junk food during children’s shows
7. Banning trans fats
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose

Health Risks ($\alpha = .73$)

Now we would like to ask you some questions about your views about risk. How risky do you think each of the following is to human health, safety, or prosperity?

1. Artificial sweeteners
2. High fructose corn syrup
3. Genetically modified foods
4. The addition of fluoride to the public water supply
5. MSG (Monosodium Glutamate)
 - Not risky at all
 - Not too risky
 - Somewhat risky
 - Very risky
 - Extremely risky

FDA Regulation

How strongly do you favor or oppose increasing government regulation in the following areas?

1. Food safety
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose

- Strongly oppose

Environmental Regulation ($\alpha = .94$)

How strongly do you favor or oppose increasing government regulation in the following areas?

2. Air quality
3. Water quality
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose

Vaccinations ($\alpha = .88$)

To what extent do you agree or disagree with each of the following statements?

1. Vaccines have dangerous side effects for children
2. Vaccines have saved countless lives with virtually no drawbacks (R)
3. There is overwhelming evidence for the safety of vaccines (R)
4. Most diseases can be avoided by healthy lifestyles rather than vaccinations
5. Vaccines have been over-prescribed in the past few years
6. Many vaccines contain chemicals that are toxic to the human body
7. Vaccines can cause some illnesses and disorders, such as autism
 - Strongly agree
 - Moderately agree
 - Slightly agree
 - Neither agree nor disagree
 - Slightly disagree
 - Moderately disagree
 - Strongly disagree

Drugs and Alcohol ($\alpha = .73$)

Next we would like to learn about your views on drugs and alcohol. To what extent do you favor or oppose each of the following policies?

1. Legalizing medical marijuana
2. Legalizing marijuana for recreational use
3. Decriminalizing all drug use
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose

- Slightly oppose
- Moderately oppose
- Strongly oppose

Pathogen Disgust Sensitivity ($\alpha = .78$)

The following items describe a number of concepts. Please rate how disgusting you find the concepts in the items.

1. Seeing some mold on old leftovers in your refrigerator
2. Standing close to a person who has body odor
3. Shaking hands with a stranger who has sweaty palms
4. Stepping on dog poop
5. Accidentally touching a person's bloody cut
6. Seeing a cockroach run across the floor
7. Sitting next to someone who has red sores on their arm
 - Not disgusting at all
 - Not too disgusting
 - Somewhat disgusting
 - Very disgusting
 - Extremely disgusting

Study 3 – Wave 1 Materials

Environmental Regulation ($\alpha = .94$)

How strongly do you favor or oppose greater government regulation in each of the following areas?

1. Air quality
2. Water quality
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose

Food Regulation

How strongly do you favor or oppose greater government regulation in each of the following areas?

3. Food safety
 - Strongly favor

- Moderately favor
- Slightly favor
- Neither favor nor oppose
- Slightly oppose
- Moderately oppose
- Strongly oppose

Drug Decriminalization ($\alpha = .63$) and Smoking Bans

Next we would like to learn about your views on drugs and alcohol. To what extent do you favor or oppose each of the following policies?

1. Legalizing all drug use
2. Legalizing marijuana for recreational use
3. A ban on smoking cigarettes in restaurants and bars
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose

Vaccination Beliefs

How strongly do you agree or disagree with the following statement?

Some vaccines cause autism in healthy children.

- Strongly agree
- Moderately agree
- Slightly agree
- Neither agree nor disagree
- Slightly disagree
- Moderately disagree
- Strongly disagree

Three Domains of Disgust Scale: Pathogen ($\alpha = .84$), Moral ($\alpha = .92$), and Sexual ($\alpha = .86$)

The following items describe a variety of concepts. Please rate how disgusting you find the concepts described in the items, where 0 means that you do not find the concept disgusting at all and 6 means that you find the concept extremely disgusting.

1. Shoplifting a candy bar from a convenience store
2. Hearing two strangers having sex
3. Stepping on dog poop
4. Stealing from a neighbor
5. Performing oral sex
6. Sitting next to someone who has red sores on their arm

7. A student cheating to get good grades
8. Watching a pornographic video
9. Shaking hands with a stranger who has sweaty palms
10. Deceiving a friend
11. Looking out a window [*attention check*]
12. Finding out that someone you don't like has sexual fantasies about you
13. Seeing some mold on old leftovers in your refrigerator
14. Forging someone's signature on a legal document
15. Bringing someone you just met back to your room to have sex
16. Standing close to a person who has body odor
17. Cutting to the front of a line to purchase the last few tickets to a show
18. A stranger of the opposite sex intentionally rubbing your thigh in an elevator
19. Seeing a cockroach run across the floor
20. Intentionally lying during a business transaction
21. Having anal sex with someone of the opposite sex
22. Accidentally touching a person's bloody cut
 - 0 Not disgusting at all
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6 Extremely disgusting

Study 3 – Wave 2 Materials

Disgust Manipulation

Now we would like to ask you to classify some images. Previous research shows that classification relates to aspects of personality. For each of the following images, please imagine touching the object in the image, then check all of the words that describe what it would feel like to touch.

Which of the following words describe the object in this image? Check all that apply.

- Dry
- Slimy
- Soft
- Hard
- Sticky
- Smooth
- Rough
- Warm
- Cold

Control Images



Treatment Images



GMOs ($\alpha = .76$) and Organics ($\alpha = .81$)

How strongly would you favor or oppose each of the following policies?

1. Banning genetically modified, fish, livestock, and poultry
2. Mandatory labeling of foods containing genetically modified ingredients
3. Banning the use of chemical pesticides on food crops
4. Banning the use of growth hormones on fish, poultry, and livestock
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose

Anti-Vaccination Attitudes ($\alpha = .76$)

How strongly do you agree or disagree with each of the following statements?

1. Getting vaccines is a good way to protect children from disease
2. I am concerned about serious side effects of vaccines
3. Some vaccines cause autism in healthy children
 - Strongly agree
 - Moderately agree
 - Slightly agree
 - Neither agree nor disagree
 - Slightly disagree
 - Moderately disagree
 - Strongly disagree

Drugs ($\alpha = .60$) and Smoking Bans

How strongly would you favor or oppose each of the following policies?

1. Legalizing marijuana for recreational use
2. Decriminalizing all drug use
3. A ban on smoking cigarettes in restaurants and bars
 - Strongly favor
 - Moderately favor
 - Slightly favor
 - Neither favor nor oppose
 - Slightly oppose
 - Moderately oppose
 - Strongly oppose