

Measures

Library

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Animal Attachment

Animal Attachment Scale – Pet and Farmed Animal versions

Crawshaw, C., & Piazza, J. (2022). How conflicted are farmers about meat? Livestock farmers' attachment to their animals and attitudes about meat. *Psychology of Human-Animal Intergroup Relations*, 1, e8513.

Items represent action frequencies and are rated on 1-4 scales (1 = *Almost never*; 4 = *Almost always*). Items adapted from Holcomb et al.'s (1985) CENSHARE Pet Attachment Survey.*

1. Your pet [farm animal] comes to you when you arrive.
2. You talk to your pet [farm animal] as a friend.
3. Your pet [farm animal] is aware of your different moods.
4. You confide in your pet [farm animal].
5. You touch (or stroke) your pet [farm animal] when they approach.
6. You ignore your pet [farm animal] when they approach. [R]
7. Your pet [farm animal] tries to stay near by following you.
8. When your pet [farm animal] misbehaves, you hit them. [R]
9. You consider your pet [farm animal] to be member of your family.
10. You like to touch and stroke your pet [farm animal].
11. You feel sad when you are separated from your pet [farm animal].
12. You don't like your pet [farm animal] to get too close to you. [R]

R = reverse scored

*Holcomb, R., Williams, R. C., & Richards, P. S. (1985). The elements of attachment: Relationship maintenance and intimacy. *Journal of the Delta Society*, 2(1), 28–34.

Animal Empathy

The Affective and Cognitive Animal Empathy Scale (AC-AES)

Piazza, J., Leach, S., Burchell, J., Lloyd, F., Strenkowski, K., & Warhurst, I. (2026).

Understanding animal minds and mirroring their emotions: Validation of the Affective and Cognitive Animal Empathy Scale (AC-AES). *Psychology of Human-Animal Intergroup Relations*.

*This scale includes two subscales (11 items each) measuring tendencies towards: (1) affective empathy directed towards animals (“mirroring the plausible feelings of an animal”), and (2) cognitive empathy directed towards animals (“claims about what the animal might plausibly be experiencing in a situation”). The subscales are scored independently and correlate moderately.

The 22 items are rated in terms of level of agreement/disagreement on a 1-7 Likert scale (*1 = strongly disagree; 2 = moderately disagree; 3 = somewhat disagree; 4 = neither agree nor disagree; 5 = somewhat agree; 6 = moderately agree; 7 = strongly agree*), and presented in randomised order.

Domain	Item
<i>Affective subscale</i>	
Wildlife	1. When I think about a coyote with their paw caught in a steel trap, I can't help but feel pain in my own hand.
Aquatic	2. Seeing lobsters together in small tanks in a restaurant makes me feel claustrophobic as well.
Entertainment	3. Thinking about an injured racehorse with a broken leg makes my leg feel funny.
Aquatic	4. Seeing a fish taken out of water makes me gasp for air too.
Confinement	5. Seeing birds trapped in small cages in pet shops makes me feel stressed out too.
Companion	6. When I see someone step on a cat's foot, I feel a twinge in my own foot.
Animal testing	7. Thinking about pharmaceutical companies testing harsh chemicals on the eyes of rabbits, I start to almost feel an itching sensation in my own eyes.
Wildlife	8. If I were to see a deer hit by a car and stumble away, it would feel like my own body had been hit.
Farmed	9. Thinking about cattle being branded with a hot iron feels as if something hot is being pressed against my own skin.
Farmed	10. It makes me gag to think of ducks being force-fed with pipes down their throats to enlarge their livers for foie gras.
Confinement	11. When I see a gorilla alone in a zoo enclosure, I can't help but feel lonely too.
<i>Cognitive subscale</i>	
Companion	1. Isolated dogs feel loneliness.
Wildlife	2. I don't think elephants experience sadness when another elephant dies. [R]

Animal testing	3. Monkeys used in sensory deprivation experiments must feel scared.
Wildlife	4. Crocodiles that are skinned alive to make designer bags feel agonising pain before they die.
Pests	5. Rats stuck in glue traps feel terror.
Farmed	6. Hens experience a lot of distress when they are confined in battery cages with other hens.
Aquatic	7. Octopus experience great pain when they have their arms cut while they are alive.
Farmed	8. Dairy cows feel distressed when their calves are taken from them.
Entertainment	9. Donkeys that have to carry tourists on their back must be exhausted.
Entertainment	10. Killer whales are happy in tanks at entertainment parks. [R]
Pests	11. Flies and spiders likely suffer when sprayed with insect poison.

Note. R = reverse score.

The Animal Empathy Scale

Paul, E.S. (2000) Empathy with Animals and with Humans: Are They Linked? *Anthrozoös*, 13 (4), 194-202.

Please score the following items on a 9-point Likert scale (Disagree very strongly - Agree very strongly)

1. So long as they're warm and well fed, I don't think zoo animals mind being kept in cages.*
2. Often cats will meow and pester for food even when they are not really hungry.*
3. It upsets me to see animals being chased and killed by lions in wildlife programs on TV.
4. I get annoyed by dogs that howl and bark when they are left alone.*
5. Sad films about animals often leave me with a lump in my throat.
6. Animals deserve to be told off when they're not behaving properly.*
7. It makes me sad to see an animal on its own in a cage.
8. People who cuddle and kiss their pets in public annoy me.*
9. A friendly purring cat almost always cheers me up.
10. It upsets me when I see helpless old animals.
11. Dogs sometimes whine and whimper for no real reason.*
12. Many people are over-affectionate towards their pets.*
13. I get very angry when I see animals being ill treated.
14. It is silly to become too attached to one's pets.*
15. Pets have a great influence on my moods.
16. Sometimes I am amazed how upset people get when an old pets dies.*
17. I enjoy feeding scraps of food to the birds.
18. Seeing animals in pain upsets me.
19. People often make too much of the feelings and sensitivities of animals.*
20. I find it irritating when dogs try to greet me by jumping up and licking me.*
21. I would always try to help if I saw a dog or puppy that seemed to be lost.
22. I hate to see birds in cages where there is no room for them to fly about.

*reverse scored

Empathy Towards Animals

Kunst, J. R., & Hohle, S. M. (2016). Meat eaters by dissociation: How we present, prepare and talk about meat increases willingness to eat meat by reducing empathy and disgust. *Appetite*, 105, 758–774.

*this questionnaire is answered in response to the presentation of pictures of animals and potentially other stimuli

Please rate your agreement with the following statements on a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree).

1. When I see the picture above, I feel sorry for the animal that was slaughtered.
2. Thinking about the animal that was slaughtered to produce the meat displayed above does not disturb me a great deal.*
3. Seeing the picture makes me feel pity for the animal that was slaughtered.
4. I feel sad for the animal that died to produce the meat above.
5. I do not really feel very sorry for the animal that had to die.*

*reverse scored

Animal-Human Continuity

Templer, D. I., Connely, H. J., Bassman, L., & Hart, J. (2006). Construction and validation of an human-animal continuity scale. *Social Behavior and Personality*, 34(7), 769-776.

Please answer each of the following questions as honestly as you can on a scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

1. Humans have a soul but animals do not.*
2. Humans can think but animals cannot.*
3. People have a life after death but animals don't.*
4. People are animals.
5. Animals are afraid of death.
6. People evolved from lower animals.
7. People are superior to animals.*
8. Animals can fall in love.
9. People have spiritual nature but animals do not.*
10. The needs for people should always come before the needs of animals.*
11. It's okay to use animals to carry out tasks for humans.*
12. It's crazy to think of an animal as a member of your family.*

*reverse scored

Animal Images Database

Possidónio, C., Graça, J., Piazza, J., & Prada, M. (2019). Animal Images Database: Validation of 120 Images for Human-Animal Studies. *Animals*, 9(8), 475.

A set of 120 open-source colour images of animals, including 12 biological categories (amphibians, birds, mammals, insects, bivals, reptiles, arachnids, gastropods, cephalopods, fishes, clitellates, malacostracas), evaluated on 11 dimensions: <https://osf.io/mdpt6/>

1. Valence

... this animal is negative or positive.

1 = *Very negative* to 7 = *Very positive*

2. Arousal

... this animal makes you feel activated or excited.

1 = *Does not at all make me feel activated* to 7 = *Makes me feel very activated*

3. Familiarity

... this animal is familiar.

1 = *Not at all familiar* to 7 = *Extremely familiar*

4. Similarity to humans

... this animal is similar to humans.

1 = *Not at all similar to humans* to 7 = *Extremely similar to humans*

5. Cuteness

... this animal is cute.

1 = *Not at all cute* to 7 = *Extremely cute*

6. Dangerousness

... this animal is dangerous or harmful to humans.

1 = *Not at all dangerous* to 7 = *Extremely dangerous*

7. Edibility

... you find meat from this animal edible.

1 = *Not at all edible* to 7 = *Extremely edible*

8. Capacity to think

... this animal has cognitive capacities, such as thought, imagination and memory.

1 = *Not at all capable of thinking, imagining, remembering* to 7 = *Very capable of thinking, imagining, remembering*

9. Capacity to feel

... this animal is capable of feeling and experiencing sensations, such as pleasure and pain.

1 = *Not at all capable of experiencing sensations, such as pleasure and pain* to 7 = *Very capable of experiencing sensations, such as pleasure and pain.*

10. Acceptability to kill for human consumption

... it is acceptable or unacceptable to kill this animal for human consumption.

1 = *Completely unacceptable to kill the animal for human consumption* to 7 = *Completely acceptable to kill the animal for human consumption.*

11. Feelings of care and protection

... you desire to care for or protect this animal.

1 = *I do not at all desire to care for/protect the animal* to 7 = *I strongly desire to care for/protect the animal*

Animal Rights Attitudes

Wuensch, K. L., Jenkins, K. W., & Poteat, G. M. (2002). Misanthropy, idealism and attitudes towards animals. *Anthrozoös*, 15(2), 139-149.

This questionnaire was designed to measure your attitudes about a number of potentially related things. You will find a series of statements below. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with such matters of opinion. Please read each statement carefully and then indicate the extent of your disagreement/agreement with each item according to the following scale:

A (strongly disagree), B (disagree), C (no opinion), D (agree), E (strongly agree).

1. Humans have no right to displace wild animals by converting wilderness areas into farmlands, cities, and other things designed for people.
2. Animal research cannot be justified and should be stopped.
3. It is morally wrong to drink milk and eat eggs.
4. A human has no right to use a horse as a means of transportation (riding) or entertainment (racing).
5. It is wrong to wear leather jackets and pants.
6. Most medical research done on animals is unnecessary and invalid.
7. I have seriously considered becoming a vegetarian in an effort to save animal lives.
8. Pet owners are responsible for preventing their pets from killing other animals, such as cats killing mice or snakes eating live mice.
9. We need more regulations governing the use of animals in research.
10. It is morally wrong to eat beef and other "red" meat.
11. Insect pests (mosquitoes, cockroaches, flies, etc.) should be safely removed from the house rather than killed.
12. Animals should be granted the same rights as humans.
13. It is wrong to wear leather belts and shoes.
14. I would rather see humans die or suffer from disease than to see animals used in research.
15. Having extended basic rights to minorities and women, it is now time to extend them also to animals.
16. God put animals on Earth for man to use.*
17. There are plenty of viable alternatives to the use of animals in biomedical and behavioral research.
18. Research on animals has little or no bearing on problems confronting people.
19. New surgical procedures and experimental drugs should be tested on animals before they are used on people.*
20. I am very concerned about pain and suffering in animals.
21. Since many important questions cannot be answered by doing experiments on people, we are left with no alternatives but to do animal research.*
22. It is a violation of an animal's rights to be held captive as a pet by a human.
23. It is wrong to wear animal fur (such as mink coats).
24. It is appropriate for humans to kill animals that destroy human property, for example, rats, mice, and pigeons.*
25. Most cosmetics research done on animals is unnecessary and invalid.
26. It is morally wrong to eat chicken and fish.

- 27. Most psychological research done on animals is unnecessary and invalid.
- 28. Hunters play an important role in regulating the size of deer.*

*reverse scored

Animal Use

Knight, S., Vrij, A., Cherryman, J., & Nunkoosing, K. (2004). Attitudes towards animal use and belief in animal mind. *Anthrozoös*, 17(1), 43–62.

Please indicate how strongly you agree or disagree with each of the following statements (1 = Strongly Disagree to 7 = Strongly Agree).

Using Animals For Experimentation

1. New medical procedures should be tried on animals before they are tried on humans.
2. Much of scientific research done with animals is unnecessary and cruel.
3. Experimentation with animals is cruel, even if it saves human lives.*
4. Continued research with animals will be necessary if we are to ever conquer diseases such as cancer, heart disease and AIDS.
5. It is acceptable to cause injury, distress or death to animals in research even if humans do not benefit from this.

Using Animals In The Classroom

1. I support university research that is done with animals if it does not cause distress, pain or death to the animal.
2. Students should be given alternatives to using real animals for dissection.*
3. It is cruel to use and dispose of live microscopic animals for classroom purposes.*
4. It is morally wrong to use animals in classrooms if the animal is harmed, distressed or injured.*
5. It is alright to use dead animals in class laboratories if the animals were raised and killed humanely.

Using Animals For Personal Decoration

1. In a Western society where man-made alternatives are available, it is wrong to kill animals for their fur.*
2. Stores should sell more items such as jewellery and purses made with animal by-products
3. Consumers should boycott companies that routinely use animals for testing their products.*
4. Animals should be used to test personal products, such as soap, before they are marketed for people.
5. Breeding animals for their skins is a legitimate use of animals.

Using Animals For Entertainment

1. The use of animals for human entertainment such as rodeos, bull-fighting and circuses is cruel.*
2. Zoos provide an acceptable environment for wild animals.
3. It is morally wrong to hunt wild animals just for sport.*
4. There should be extremely harsh penalties including jail sentences for people who participate in dog-fighting and badger-baiting.*

Animal Management

1. Hunting is an acceptable means for controlling overpopulation in wild animals.
2. Any bird that is a nuisance should be destroyed.

3. Household invaders such as mice and rats should be destroyed when in the house.
4. Wildlife in urban areas should be protected, even if it becomes a nuisance.*
5. Animal management should focus research on non-lethal ways to manage groups of animals.*
6. Farmers should use scarecrows/ bird-scarers rather than kill birds that damage their crops.*

Using Animals For Financial Gain

1. Animal shelters should destroy stray animals because it costs money to keep them.
2. In general, I think that human economic gain is more important than setting aside more land for wildlife.
3. The slaughter of whales and dolphins should be immediately stopped even if it means some people will be out of work.*
4. The production of inexpensive meat justifies maintaining animals under crowded and often painful conditions.
5. Battery farming chickens and hens is okay if it makes the price of their eggs lower.
6. Foxes have a right to be protected from farmers, even if they damage their crops.*

* reverse scored

Animal Use in Psychological Research

Plous, S. (1996). Attitudes toward the use of animals in psychological research and education. Results from a national survey of psychologists. *American Psychologist*, 51(11), 1167-1180.

***these items had varying response scales:*

Support strongly / Support / Oppose / Oppose strongly / Not sure: item 1

Frequently / Occasionally / Rarely / Never: item 2

Yes / No / Not sure: items 3, 9, 10, 14

Decrease / Maintain / Increase: item 4

Seriously hamper / Have a minor effect / Have no effect whatsoever: item 5

Should be tougher and/or more inclusive / Are adequate and should be maintained / Are excessive / should be reduced: items 6

Support / Oppose / Not sure: items 7, 8, 13

Primates / Dogs / Cats / Pigeons / Rats and mice / Farm animals / Reptiles / None of these animals: items 11, 12

1. In general, do you support or oppose the use of animals in psychological research?
2. How often do you use findings from animal research in your professional work?
3. Do you believe that the use of animals in psychological research is necessary for progress in psychology, or not?
4. Some people say that funds for animal research would be better spent studying humans. Others feel that funding for animal research should be maintained or increased. What is your opinion?
5. If psychological research on animals were banned in the future, how would this affect your work?
6. In general, how do you feel about the legal regulations governing animal research?
7. Federal regulations protect the "psychological well-being" of primates used in research. Do you support or oppose the idea of protecting the psychological well-being of primates?
8. Before being granted approval to run an experiment, investigators in Great Britain, Canada, and the Netherlands are required to assess the degree of pain animals may experience. Would you support or oppose a similar requirement in the United States?
9. As far as you know, are the animals used in psychological research treated humanely, or not?
10. If an animal researcher is charged with violating animal welfare guidelines or anticruelty laws, should the American Psychological Association contribute money toward that person's legal defense?
11. The Animal Welfare Act is a federal law that governs the use of animals in research. As far as you know, which of the following animals are presently covered under this law? (check all that apply)
12. Regardless of the species now covered under the Animal Welfare Act, which of the following animals should, in your opinion, receive federal protection when used for research? (check all that apply)
13. In general, do you support or oppose the use of animals in undergraduate psychology courses?
14. Do you feel that laboratory work with animals should be a required part of the undergraduate psychology major?

Attitudes towards Animals Scale (Speciesism)

Herzog, H., Grayson, S., & McCord, D. (2015). Brief measures of the animal attitude scale. *Anthrozoös*, 28(1), 145-152.

Listed below are a series of statements regarding the use of animals. Please indicate the extent to which you agree or disagree with the statement on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. It is morally wrong to hunt wild animals just for sport.
2. I do not think that there is anything wrong with using animals in medical research.*
3. I think it is perfectly acceptable for cattle and hogs to be raised for human consumption.*
4. Basically, humans have the right to use animals as we see fit.*
5. The slaughter of whales and dolphins should be immediately stopped even if it means some people will be put out of work.
6. I sometimes get upset when I see wild animals in cages at zoos.
7. Breeding animals for their skins is a legitimate use of animals.*
8. Some aspects of biology can only be learned through dissecting preserved animals such as cats.*
9. It is unethical to breed purebred dogs for pets when millions of dogs are killed in animal shelters each year.
10. The use of animals such as rabbits for testing the safety of cosmetics and household products is unnecessary and should be stopped.

* reverse scored

Attitude Towards Meat Consumption

Berndsen, M., & van der Pligt, J. (2004). Ambivalence towards meat. *Appetite*, 42(1), 71–78. [https://doi.org/10.1016/S0195-6663\(03\)00119-3](https://doi.org/10.1016/S0195-6663(03)00119-3)

Answers are given on a 5-point semantic differential scale.

“On the scales provided, please choose what most closely aligns with your thoughts and attitudes towards the act of consuming meat.”

- 1) bad – good
- 2) unfavourable – favourable
- 3) unpleasant – pleasant
- 4) against – for
- 5) negative – positive

Belief in Animal Mind

Hills, A. M. (1995). Empathy and belief in the mental experience of animals. *Anthrozoös*, 8(3), 132-142.

Please rate the following items on a 7-point scale ranging from 1 (= strongly disagree) to 7 (= strongly agree).

1. Most animals are unaware of what is happening to them.*
2. Most animals are capable of experiencing a range of feelings and emotions (e.g. pain, fear, contentment, maternal affection).
3. Most animals are able to think to some extent to solve problems and make decisions about what to do.
4. Most animals are more like computer programs, i.e. mechanically responding to instinctive urges without awareness of what they are doing.*

*reverse scored

Carnism

The Carnism Inventory

Monteiro, C. A., Pfeiler, T. M., Patterson, M. D., & Milburn, M. A. (2017). The carnism inventory: Measuring the ideology of eating animals. *Appetite* 113, 51-62.

Carnistic Defense

Please indicate your agreement with each item on a scale ranging from 1 (strongly disagree) to 7 (strongly agree).

1. Humans should continue to eat meat because we've been doing it for thousands of years
2. Eating meat is better for my health.
3. I've been eating meat my whole life, I could never give it up.
4. The production of meat causes animals to suffer.*

Carnistic Domination

Please indicate your agreement with each item on a scale ranging from 1 (strongly disagree) to 7 (strongly agree).

5. Animals are dirty and deserve to be eaten.
6. Not eating animals is a sign of weakness.
7. I have the right to kill any animal I want.
8. Animals aren't intelligent enough to suffer in intensive confinement.

*reverse scored

Comfort with Touching Animals

Herzog, H. A., Betchard, N. S., & Pittman, R. (1991). Gender, sex role identity and attitudes toward animals. *Anthrozoös*, 4, 184–191.

Please indicate how you would feel about touching the following animals on a five-point scale on which 1 indicated “would be very comfortable touching” and 5 indicated “would be very uncomfortable touching”.

1. butterfly
2. hamster
3. canary
4. earthworm
5. non-poisonous spider
6. kitten
7. toad
8. duck
9. horse
10. harmless snake
11. mouse
12. turtle
13. large dog
14. chicken
15. bat

Compassion Questionnaire for Animals

Khoury, B., & Vergara, R. C. (2024). Compassion Questionnaire for Animals: Scale Development and Validation. *Journal of Environmental Psychology*, 102470.

<https://doi.org/10.1016/j.jenvp.2024.102470>

Listed below is a collection of statements about your everyday experiences. Please read each statement carefully, and using the scale below, please indicate how often you experience each of the following. Please answer according to what accurately reflects your experience rather than what you think your experience should be. (1) Almost Never, (2) Rarely, (3) Sometimes, (4) Often, (5) Almost Always.

1. I take concrete actions to support animals' wellbeing
2. I take actions to diminish the suffering of animals
3. I do whatever I can to diminish the mistreatment of animals
4. It is hard for me to resonate with the suffering of animals
5. My pain helps me relate to animals in pain
6. I do whatever I can to help animals in distress
7. My suffering helps me connect with the suffering of animals
8. I tend to ignore the distress of animals
9. I tend to trivialize the hardship of animals
10. My suffering has no bearing on my ability to empathize with the suffering of animals
11. I do whatever I can to diminish the agony of animals
12. It is challenging for me to feel close to animals in pain
13. I do not find any connection between my distress and the distress of animals
14. I do whatever possible to protect animals
15. My own pain does not contribute to my understanding of the pain experienced by animals
16. My distress allows me to connect with animals in distress
17. I tend to discard the agony of animals
18. I feel unaffected by animals in pain.
19. I feel tenderness towards animals in agony
20. I do what's possible to reduce the distress of animals
21. I take actions to ease the pain of animals whenever possible
22. I advocate for animals' welfare
23. I tend to overlook the pain of animals
24. I defend animals' rights whenever possible
25. I feel close to animals in pain
26. My anguish allows me to better relate to the agony of animals
27. I tend to dismiss the suffering of animals
28. I feel warm-hearted towards animals in pain

Scoring key

Each dimension is computed separately using the average of its items. The total score should be computed as the average of the three dimensions. R means the item is reverse scored.

1. CQA (Thinking/Feeling Compassionately) = (CQA4R + CQA8R + CQA9R + CQA12R + CQA17R + CQA18R + CQA19 + CQA23R + CQA27R + CQA28) / 10
2. CQA (Acting or Intention to Act Compassionately) = (CQA1 + CQA2 + CQA3 + CQA6 + CQA11 + CQA14 + CQA20 + CQA21 + CQA22 + CQA24) / 10
3. CQA (Connecting with the Suffering of Animals) = (CQA5 + CQA7 + CQA10R + CQA13R + CQA15R + CQA16 + CQA25 + CQA26) / 8

CQA (total score) = (CQA (Thinking/Feeling Compassionately) + CQA (Acting or Intention to Act Compassionately) + CQA (Connecting with the Suffering of Animals)) / 3

Consumption Orientations

Graça, J., Truninger, M., Junqueira, L., & Schmidt, L. (2019). Consumption orientations may support (or hinder) transitions to more plant-based diets. *Appetite*, 140, 19-26.

1. General Consumption Orientations

In our daily lives, we all buy and/or use several goods and services. It is often considered that these activities make us consumers. Thinking of yourself as a consumer, please rate the extent to which you agree with each of the following sentences.

Response scale: 1 (totally disagree) to 5 (totally agree).

As a consumer, for me it is important ...

Constraint

1. To be able to manage a very limited budget.
2. To try not to reach midmonth without money to cover expenses.
3. To use the lowest price as main criteria when doing the shopping.

Hedonism

4. To have pleasure to go shopping.
5. To enjoy buying new things.
6. To buy products for their aesthetic appearance.

Prosumerism

7. To learn new skills to make my own stuff.
8. To make or to repair things by myself ('do it yourself').
9. To use only what I produce or make whenever possible.

Choice

10. To have as many different choices as possible.
11. To be able to choose between many different products/services.
12. To have a large and varied set of options.

Ethics

13. To affirm my principles through what I buy.
14. To consider how my consumption habits may affect others and the environment.
15. To boycott brands or products that have poor social and environmental practices.

Exploration

16. To try new products and services.
17. To try out different things.
18. To be adventurous in the choices that I make.

Sufficiency

19. To acknowledge that consumption does not necessarily bring me wellbeing.
20. To feel well for consuming less, with conscious and more thoughtful choices.

21. To stop buying products that I do not really need.

Communication

22. To convey an image through the products and services that I use.

23. To communicate to others my lifestyle through my choices.

24. To buy and use brands that I identify myself with.

2. Food Consumption Orientations

Please rate the extent to which you agree with each of the following sentences.

Response scale: 1 (totally disagree) to 5 (totally agree).

I eat what I eat, ...

Health

1. To maintain a balanced diet.

2. Because it is healthy.

3. Because it keeps me in shape (e.g. energetic, motivated).

Convenience

4. Because it is quick to prepare

5. Because it is the most convenient.

6. Because it is easy to prepare.

Pleasure

7. Because I enjoy it.

8. In order to indulge myself.

9. In order to reward myself.

Natural concerns

10. Because it is natural (e.g. not genetically modified).

11. Because it contains no harmful substances (e.g. pesticides, pollutants, antibiotics).

12. Because it is organic.

Sociability

13. Because it is social.

14. So that I can spend time with other people.

15. Because it makes social gatherings more comfortable.

Price

16. Because it is inexpensive.

17. Because I don't want to spend any more money.

18. Because it is on sale.

Social image

19. Because it is trendy.

20. Because it makes me look good in front of others.

21. Because others like it.

Decisional Balance for Meat Reduction

Strässner, A. M., & Hartmann, C. (2023). Gradual behaviour change towards meat reduction: Development and validation of a novel decisional balance scale. *Appetite*, 186, 106537.

First, participants answer the question: 'Have you reduced your meat consumption in the past?' with response options 'yes' and 'no'.

Participants who select 'yes' are then asked :

'How important is each of the following statements to you, regarding your decision to reduce your meat consumption?'

Participants who select 'no' are then asked :

'How important is each of the following statements to you, regarding your decision to potentially reduce your meat consumption?'

Response scale: 1 (*not at all important*) to 5 (*extremely important*).

Perceived benefits of a plant-based diet

1. A plant-based diet offers me a great variety of foods.
2. I often find vegetarian dishes simple and easy to cook.
3. I discover new flavours when I cut down on meat.
4. The availability of meatless dishes and foods is growing and getting more diverse.
5. A plant-based diet helps me to stay physically fit.
6. The production of plant-based foods is less resource intensive than the production of animal-based foods.

Downsides of factory farming

7. Industrial livestock production has significant negative impacts on the environment.
8. Meat from factory farming contains antibiotics that are harmful to people's health.
9. All farm animals raised for meat production experience fear and suffering. .
10. Reducing meat consumption means avoiding animal suffering.

Health barriers

11. Eating meat is necessary to be healthy.
12. Eating meat is essential for building strong muscles. .
13. Without meat, the body lacks vital proteins, vitamins, and minerals.
14. Meat dishes are more filling than vegetarian or vegan dishes.

Legitimation barriers

15. Everyone has the right to eat meat. .
16. Eating meat is part of my culture.
17. Meat is delicious.

Feasibility barriers

18. I don't know how to replace meat in my diet.
19. I lack the skills to prepare meatless meals. .
20. A diet with very little meat would be inconvenient for me because I would have to change my diet a lot.

Scoring

The DB index can be calculated by subtracting the weighted sum of the cons (i.e., (Health barriers + Legitimation barriers + Feasibility barriers)/3) from the weighted sum of the pros (i.e., (Perceived benefits of a plant-based diet + downsides of factory farming)/2). Positive index scores indicated more perceived pros of a behaviour change towards meat reduction, while negative index scores indicated more perceived cons.

Dietarian Identity Questionnaire

Rosenfeld, D. L., & Burrow, A. L. (2018). Development and validation of the Dietarian Identity Questionnaire: Assessing self-perceptions of animal-product consumption. *Appetite*, 127, 182-194.

First, participants indicate which animal products they do eat and do not eat. In their work developing the DIQ, Rosenfeld and Burrow (2018) asked participants about whether they do or do not eat the following five types of animal products: red meat, poultry, fish, egg, and dairy. However, researchers administering the DIQ can take the liberty of operationalizing animal products in a variety of ways and may ask participants to indicate their animal product consumption behaviors how they see fit.

After participants provide their response indicating which animal products they do eat and do not eat, they are told that this is their “dietary pattern.” Then, participants continue onto the 33 items of the DIQ, which starts with the following prompt:

Please indicate how strongly you agree or disagree with each of the following statements (1 = Strongly Disagree to 7 = Strongly Agree).

After seeing this prompt, participants continue onto the DIQ items, which assess 8 distinct factors as follows:

Centrality

1. My dietary pattern is an important part of how I would describe myself.
2. My dietary pattern has a big impact on how I think of myself.
3. A big part of my lifestyle revolves around my dietary pattern.
4. My dietary pattern defines a significant aspect of who I am.
5. Following my dietary pattern is an important part of who I am.

Private Regard

1. People who follow my dietary pattern tend to be good people.
2. Following my dietary pattern is a respectable way of living.
3. People who follow my dietary pattern should take pride in their food choices.

Public Regard

1. People who follow my dietary pattern are judged negatively for their food choices. (R)
2. People who follow my dietary pattern tend to receive criticism for their food choices. (R)
3. Following my dietary pattern is associated with negative stereotypes. (R)

Out-Group Regard

1. I view people as less moral for eating foods that go against my dietary pattern. (R)
2. I judge people negatively for eating foods that go against my dietary pattern. (R)
3. Seeing people eat foods that go against my dietary pattern makes me upset or angry. (R)
4. If I see someone eat foods that go against my dietary pattern, I like him or her less. (R)
5. It bothers me when people eat foods that go against my dietary pattern. (R)

6. Seeing someone eat foods that go against my dietary pattern makes him or her less attractive to me. (R)
7. People should feel guilty about eating foods that go against my dietary pattern. (R)

Prosocial Motivation

1. I view my dietary pattern as a way of making the world a better place for others.
2. Concerns about social issues motivate me to follow my dietary pattern.
3. I follow my dietary pattern because I want to benefit society.
4. I feel motivated to follow my dietary pattern because I am concerned about the effects of my food choices on other beings.
5. I am motivated to follow my dietary pattern because I want to help others.
6. I follow my dietary pattern because eating this way is good for the world.

Personal Motivation

1. I follow my dietary pattern because I am concerned about the effects of my food choices on my own well-being.
2. I follow my dietary pattern because eating this way improves my life.
3. When thinking about which animal products to consume, I consider the effects of my food choices on my own health.

Moral Motivation

1. I feel that I have a moral obligation to follow my dietary pattern.
2. I am motivated to follow my dietary pattern because eating foods that go against my dietary pattern is immoral.
3. I follow my dietary pattern because eating this way is the morally right thing to do.

Strictness

1. I can be flexible and sometimes eat foods that go against my dietary pattern. (R)
2. From time to time, I eat foods that go against my dietary pattern. (R)
3. I would eat a food product that goes against my dietary pattern if I were to hear that it tastes exceptionally good. (R)

(R) reverse scored

Disgust (meat, dairy, eggs, fish)

Meat Disgust

Rothgerber H. (2014). A comparison of attitudes toward meat and animals among strict and semi-vegetarians. *Appetite*, 72, 98–105.

Please rate the following items on a likert-type scale ranging from 1 (= strongly disagree) to 6 (= strongly agree).

- 1) I dislike factory farmed meat because of where it comes from.
- 2) The thought of eating factory farmed meat makes me nauseous.
- 3) I avoid eating factory farmed meat because it is offensive, repulsive, or disgusting.
- 4) I avoid eating factory farmed meat because emotionally, I just cannot chew and swallow it.

Adjusted scales for Dairy, Egg, and Fish Disgust

Ioannidou, M., Lesk, V., Stewart-Knox, B., & Francis, K. B. (2023). Moral emotions and justifying beliefs about meat, fish, dairy and egg consumption: A comparative study of dietary groups. *Appetite*, 186, 106544. <https://doi.org/10.1016/j.appet.2023.106544>

Please rate the following items on a likert-type scale ranging from 1 (= strongly disagree) to 6 (= strongly agree).

Dairy Disgust

- 1) Drinking and eating dairy-based products is offensive, repulsive, and disgusting
- 2) I avoid eating dairy-based products because emotionally, I just cannot chew and swallow it.
- 3) The thought of eating dairy-based products it makes me nauseous

Egg Disgust

- 1) Eating egg is offensive, repulsive, and disgusting
- 2) The thought of eating eggs makes me nauseous
- 3) I avoid eating eggs because emotionally, I just cannot chew and swallow it

Fish Disgust

- 1) Eating fish is offensive, repulsive, and disgusting
- 2) The thought of eating fish makes me nauseous
- 3) I avoid eating fish because emotionally, I just cannot chew and swallow it.

Ecological Dominance Orientation

Uenal, F., Sidanius, J., Maertens, R., Hudson, S. K. T., Davis, G., & Ghani, A. (2022). The roots of ecological dominance orientation: Assessing individual preferences for an anthropocentric and hierarchically organized world. *Journal of Environmental Psychology*, 81, 101783.

The scale measures the preference for a less or more hierarchical relationship between humans, nonhuman animals, and the natural environment. It uses popular depictions of ecocentrism versus anthropocentrism at opposing ends of a scale ranging from 1 (*less hierarchical*) to 7 (*more hierarchical*).

Ideas on how humans, animals, and the natural environment should relate to each other can differ for every person. Using the image below as a guide, indicate which arrangement you personally think represents your own preference. There are no right or wrong answers here: we are simply interested in your personal preference.

The more you move the slider to the right, the more you indicate a preference for a more hierarchical relationship between humans, animals, and the natural environment. The more you move the slider to the left, the more you indicate a preference for a less hierarchical relationship.



Less hierarchical



More hierarchical

1 2 3 4 5 6 7

Ecological Welfare

Lindeman, M., & Väänänen, M. (2000). Measurement of ethical food choice motives. *Appetite*, 34, 55–59.

Please rate the following items on a scale ranging from 1 (=not at all important) to 4 (= very important). It is important that the food I eat every day....

Animal Welfare

1. ...has been produced in a way that animals have not experienced pain.
2. ...has been produced in a way that animals' rights have been respected.

Environmental Welfare

3. ...has been prepared in an environmentally friendly way.
4. ...has been produced in a way which has not shaken the balance of nature.
5. ...is packaged in an environmentally friendly way.

Political Values

6. ...comes from a country I approve of politically.
7. ...comes from a country in which human rights are not violated.
8. ...has the country of origin clearly marked.
9. ...has been prepared in a way that does not conflict with my political values.

Religion

10. ...is not forbidden in my religion
11. ...is in harmony with my religious views

Enablers of eating more plant-based meals

Graça, J., Truninger, M., Junqueira, L., & Schmidt, L. (2019). Consumption orientations may support (or hinder) transitions to more plant-based diets. *Appetite*, 140, 19-26.

Considering the following specific features, please indicate to what extent each feature would be important for you to eat plant-based meals more often.

Response scale: 1 (totally disagree) to 5 (totally agree).

Capability

1. Knowing more recipes for plant-based meals.
2. Knowing how to prepare these meals.
3. Having information about the nutritional properties of plant-based meals.

Opportunity

1. Ensuring that close others support me (e.g., family; friends).
2. Ensuring that plant-based meals are more accessible and convenient (e.g., supermarkets, restaurants).
3. Knowing more people who follow a plant-based diet.

Motivation

1. Feeling pleasure for eating plant-based meals.
2. Feeling that these meals bring benefits for myself.
3. Feeling that these meals bring benefits for the planet.
4. Feeling like eating plant-based meals.

Food Choices Motives

Funk, A., Sütterlin, B., & Siegrist, M. (2021). Consumer segmentation based on Stated environmentally-friendly behavior in the food domain. *Sustainable Production and Consumption*, 25, 173-186. <https://doi.org/10.1016/j.spc.2020.08.010>

The response scale ranges from 1 (does not apply at all) to 6 (completely applies).

It is important to me that the food products that I consume on a normal/typical day ...

Animal welfare and environmental protection:

- 1) ...have been produced in a way in which animals did not have experience pain.
- 2) ...have been produced in a way that respects animals' rights.
- 3) ...have been produced in a way in which animals were kept and fed species-appropriate.
- 4) ...have been produced in an environmentally-friendly way.
- 5) ...have been produced in a way that does not upset the balance of nature.

Transportation and packaging:

- 6) ...do not have an unnecessary packaging.
- 7) ...are from regional origin.
- 8) ...were not transported by plane.

Health:

- 9) ...promote my health.
- 10) ...have no bad effect on my health.
- 11) ...have a balanced composition of ingredients.

External effects:

- 12) ...correspond to tradition (e.g., family tradition).
- 13) ...are in accordance with society's expectations.
- 14) ...are approved by others.

Practical motives:

- 15) ...are inexpensive.
- 16) ...are quick to prepare.
- 17) ...are easy to prepare.

Taste:

- 18) ...taste good.
- 19) ...are conform to what I like to eat the most.

Food Choice Questionnaire

Steptoe, A., Pollard, T.M. & Wardle, J. (1995). Development of the motives underlying the selection of food: the food choice questionnaire. *Appetite* 25, 267-284.

Please indicate on a 4-point scale from 1= Not at all important to 4 = Very important how important the items below are to your meal on a typical day.

1. Contains a lot of vitamins and minerals
2. Keeps me healthy
3. Is nutritious
4. Is high in protein
5. Is good for my skin/teeth/hair/nails etc .
6. Is high in fibre and roughage
7. Helps me cope with stress
8. Helps me to cope with life
9. Helps me relax
10. Keeps me awake/alert
11. Cheers me up
12. Makes me feel good
13. Is easy to prepare
14. Can be cooked very simply
15. Takes no time to prepare
16. Can be bought in shops close to where I live or work
17. Is easily available in shops and supermarkets
18. Smells nice
19. Looks nice
20. Has a pleasant texture
21. Tastes good
22. Contains no additives
23. Contains natural ingredients
24. Contains no artificial ingredients
25. Is not expensive
26. Is cheap
27. Is good value for money
28. Is low in calories
29. Helps me control my weight
30. Is low in fat
31. Is what I usually eat
32. Is familiar
33. Is like the food I ate when I was a child
34. Comes from countries I approve of politically
35. Has the country of origin clearly marked
36. Is packaged in an environmentally friendly way

Scoring Key

Health: 1, 2, 3, 4, 5, 6
Mood: 7, 8, 9, 10, 11, 12
Convenience: 13, 14, 15, 16, 17
Sensory Appeal: 18, 19, 20, 21
Natural Content: 22, 23, 24
Price: 25, 26, 27
Weight Control: 28, 29, 30
Familiarity: 31, 32, 33
Ethical Concern: 34, 35, 36

Food-related Motivation

Schösler, H., de Boer, J., & Boersema, J. J. (2014). Fostering more sustainable food choices: Can Self-Determination Theory help? *Food Quality and Preference*, 35, 59-69.

Please rate the following items on a Likert-type scale which varied from 1 (completely disagree) to 7 (completely agree).

1. As an ordinary consumer one should not make too much fuss about food.*
2. I don't need to know exactly how my food is produced.*
3. When I eat meat, I am jointly responsible for the way the animal has lived and been treated.
4. It's important to me that my food choices are not harmful to the natural environment.
5. I find all these labels and quality marks on food packages unnecessary.*
6. As human beings we are part of a universal whole. In essence, we are connected with all life on earth.
7. What I primarily enjoy is the conviviality of eating with others; the food itself is less important to me.*
8. I consider the things we eat, such as animals and plants, as ensouled.
9. I like it best to buy my food packaged, I believe that's more hygienic.*
10. I feel happy when I have time and attention to cook.
11. I prefer to prepare food myself because I want to eat everything as pure as possible.
12. I don't like cooking very much. Often I find it a burden to prepare a meal.*
13. When I eat, I regularly pause to experience what something tastes like exactly.
14. To me it's convenient when a product I purchase is more or less ready to eat.*
15. I like it best to purchase everything in one shop.*
16. I like to feel a personal connection with the person I buy my food from.
17. I diet regularly. This has great influence on my food choice.*
18. Food is often an irresistible temptation. Sometimes I feel guilty about things I've eaten.*
19. The way I eat is often not what I would ideally like it to be. I regularly make concessions because I find other things more important.*
20. I'm most concerned about nutritional value, calories and fat percentage of my meal.*
21. If I do not eat well, I can't stay healthy.

*reverse scored

Scoring Key

Internalized motivation: 1, 2, 3, 4, 5, 6, 7, 8, 9,

Intrinsic motivation: 10, 11, 12, 13, 14, 15, 16

Introjected motivation: 17, 18, 19, 20, 21

Food Safety – Concerns About Animal Welfare Scale

Zingg, A., & Siegrist, M. (2012). People's willingness to eat meat from animals vaccinated against epidemics. *Food Policy*, 37(3), 226-231.
<https://doi.org/10.1016/j.foodpol.2012.02.001>

"Please indicate how strongly you agree with the following statements."

6-point scale ranging from «do not agree at all» (1) to «completely agree» (6)

1. I think feeding animals with industrially produced animal feeds is critical.
2. In Switzerland, animal protection arrangements are disproportionate.
3. Today's large-scale livestock farming negatively influences the environment.
4. Too little attention is given to the application of medicine to animals.
5. Livestock transport is proportional in Switzerland.
6. Discussions about the dignity of animals go too far.
7. I am not willing to support large-scale livestock farming.

Human-Animal Similarity

Costello, K., & Hodson, G. (2010). Exploring the roots of dehumanization: The role of animal—human similarity in promoting immigrant humanization. *Group Processes & Intergroup Relations*, 13(1), 3–22.

Please rate the following items on a 5-point scale ranging from 1 (= disagree strongly) to 5 (= agree strongly).

1. Humans are not the only creatures who have complex thoughts; animals think complexly too.
2. Animals have emotions such as affection, anger, or fear just like humans.
3. Humans are so vastly different from other life forms that it is a mistake to classify humans as animals.*
4. Humans evolved from other animals, thus other animals and humans are structurally and mentally similar.
5. Animals may act as if they are emotional, but they don't really feel emotions like humans do.*
6. Humans are superior to animals.*
7. Animals can fall in love too.
8. The needs of humans should always come before the needs of animals.*
9. It is okay to use animals to carry out tasks for humans.*
10. It is crazy to think of an animal as a member of your family.*

* reverse scored

Bastian, B., Costello, K., Loughnan, S., & Hodson, G. (2012). When closing the human-animal divide expands moral concern: The importance of framing. *Social Psychological and Personality Science*, 36, 100–107.

Please score the following items on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree) indicating agreement with the statements.

1. Animals are motivated to avoid pain and to seek pleasure, just like humans
2. Like humans, other animals possess the capacity to make choices.
3. Like humans, other animals possess the capacity to create their own destinies
4. Like humans, other animals possess the capacity to understand abstract concepts including cause and effects relationships.'

Human Consumption of Animals and Animal Products

Feltz, A., Caton, J., Cogley, Z., Engel, Jr., M., Feltz, S., Ilea, R., Johnson, L. S. M., & Offer-Westort, T. (2023). Using food frequency questionnaires to measure traits: A case study of human consumption of animals and animal products. *Psychology of Human-Animal Intergroup Relations*, 2, Article e10145.

Using items from Food Frequency Questionnaires (FFQ), the scales below measure human consumption of animals and animal products as a trait. For more information and recommendations on dietary assessment using FFQs, please see [this overview](#) by Animal Charity Evaluators.

3-Month FFQ instrument

How often, in the past 3 months, did you eat the following?

(1 = never, 2 = less than 1 time per week, 3 = 1-3 times per week, 4 = 4-6 times per week, 5 = 1 or more times per day).

1. Chicken (fried chicken, in soup, grilled chicken, etc...)
2. Fish and seafood (tuna, shrimp, crab, etc...)
3. Pork (ham, pork chops, ribs, etc..)
4. Beef (steak, meatballs, in tacos, etc...)
5. Bacon
6. Hamburgers

24-Hour FFQ instrument

In the past day, how many times did you consume the following food?

(1 = 0 times, 2 = 1 time, 3 = 2 times, 4 = 3 times, 5 = 4 times, 6 = 5 times or more).

1. Dairy (cheese, milk, yogurt, etc...)
2. Chicken (fried chicken, in soup, grilled chicken, etc..)
3. Turkey (turkey dinner, turkey sandwich, in soup, etc...)
4. Fish and seafood (tuna, shrimp, crab, etc...)
5. Pork (ham, pork chops, ribs, etc..)
6. Beef (steak, meatballs, in tacos, etc...)
7. Eggs (omelet, in salad, in baked goods, etc...)
8. Bacon
9. Sausages
10. Processed meats (e.g., salami, bologna, etc...)
11. Hamburgers
12. Meat (any type of meat, including beef, pork chicken, turkey, fish, shellfish, or other meats)

Human Supremacy Beliefs

Dhont, K., & Hodson, G. (2014). Why do right-wing adherents engage in more animal exploitation and meat consumption? *Personality and Individual Differences*, 64, 12–17.

Please rate the following items on a 7-point scale ranging from 1 (= strongly disagree) to 7 (= strongly agree).

1. The life of an animal is just not of equal value as the life of a human being.
2. Animals are inferior to humans.
3. There is nothing unusual at all in the fact that humans dominate other animal species.
4. We should strive to more equality between humans and animals.*
5. In an ideal world, humans and animals would be treated on an equal basis.*
6. It is important that we treat other animal species more equally.*

*reverse scored

Knowledge of Animals as Food Scale

Feltz, S., & Feltz, A. (2019). The Knowledge of Animal as Food Scale. *Human Animal Interactions Bulletin*, 7(2), 19-45.

1. You must eat animals to have a healthy diet. (F)
2. The only way to have protein in your diet is to eat animals. (F)
3. Animal products are the only source of calcium. (F)
4. Most chickens used for food and eggs live in open spaces. (F)
5. From 2010 to 2015, over 9 billion animals per year were slaughtered for food in the U.S. (T)
6. In 2015, more than 25 million cows were slaughtered for food. (T)
7. Americans are in the top 5 in the world of meat consumption per person. (T)
8. Eating too much meat increases your risk of heart disease. (T)
9. Factory farming animals often leads to deformities in farmed animals. (T)
10. Federal laws protect how poultry are slaughtered. (F)
11. More than 50% of pigs have pneumonia when they are slaughtered. (T)

T = True

F = False

Correct answers are coded as 1 and incorrect answers as 0. The total number of correct answers provides the scale score.

Masculinity of Meat Scale

Lax, J. B., & Mertig, A. G. (2020). The perceived masculinity of meat: Development and testing of a measure across social class and gender. *Food, Culture & Society*, 23(3), 416-426.

The following statements talk about attitudes toward eating food. Please indicate the extent to which you agree or disagree with the statement on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. Men need to eat meat more than women do.
2. A real man would never turn down a thick, juicy steak.
3. Meat is “men’s food”.
4. Men would probably struggle to give up meat more than women would.
5. Vegetarianism is wimpy.
6. Flipping burgers is a manly thing to do.
7. Giving up meat is a girly thing to do.

Meat Alternative Rejection (MAR) Scale

Wassmann, B., Siegrist, M., & Hartmann, C. (2025). Measuring the rejection of meat alternatives: Development and validation of a new scale. *Food Quality and Preference*, 125, 105352.

<https://doi.org/https://doi.org/10.1016/j.foodqual.2024.105352>

7-point response scale ranging from “do not agree at all” (1) to “totally agree” (7)

1. Meat substitutes will never be able to adequately replace the taste of meat.
2. The potential environmental benefits of meat substitutes are not convincing.
3. Meat substitutes are not environmentally friendly.
4. Meat substitutes are unnatural.
5. The potential animal welfare benefits of meat substitutes are not convincing.
6. Meat substitutes are only a temporary trend.
7. Meat substitutes are just moneymaking for the food industry.
8. Meat substitutes are less healthy than meat.
9. Meat substitutes are only for vegetarians and vegans.
10. People who consume meat substitutes are extremists.

Meat Ambivalence Questionnaire

Buttlar, B., Pauer, S., Ruby, M. B., Chambon, M., Jimenez-Klingberg, A.-K., Scherf, J., & Scherrer, V. (2023). The Meat Ambivalence Questionnaire: Assessing Domain-Specific Meat-Related Conflict in Omnivores and Veg*ans. *Collabra: Psychology*, 9(1), 73236.

Response scale: 1 (Strongly disagree), 2 (Disagree), 3 (Somewhat disagree), 4 (Neither agree nor disagree), 5 (Somewhat agree), 6 (Agree), 7 (Strongly agree).

Animal-based ambivalence

1. The idea of slaughterhouses makes me go back and forth about whether I should eat meat or not.
2. Sometimes I am torn whether it is justifiable to eat meat when I become aware of the varying moral standards that are applied to different living beings.
3. When I think of how animals are treated to produce meat, I experience a conflict about meat consumption.
4. When I am reminded that animals are slaughtered, my feelings towards eating meat frequently change.
5. My moral values regarding the treatment of animals make me go back and forth whether eating meat is right or wrong.

Socially-based ambivalence

1. When someone asks me about my diet, I feel conflicted in regard to meat.
2. I feel conflicted about meat consumption when I find out that someone else has a different diet regarding meat.
3. I have mixed feelings about eating meat when the topic of meat consumption arises in the presence of people with a different diet.
4. Due to the social role of meat in everyday life, I am torn whether eating meat is good or bad.
5. Discussions about eating meat make me wonder whether meat consumption is good or bad.

Sustainability-based ambivalence

1. Due to environmental issues, my thoughts and feelings towards meat change frequently.
2. I am torn whether I should eat meat when I think of sustainable diets.
3. Sometimes I find it difficult to decide whether I should eat meat when I become aware of how the actions of individuals can contribute to sustainable living.
4. When I think of a sustainable lifestyle, I feel a conflict in regard to meat.
5. When I think about how food choices affect the environment, I have mixed feelings about eating meat.

Health-based ambivalence

1. When I think of what is good for my body, I know for sure how I feel about meat.*
2. I have conflicting thoughts and feelings whether it is/would be good for my health to avoid eating meat.
3. I flip back and forth whether eating meat is good or bad for my health.

4. When I think of a healthy diet, I feel a contradiction as to whether I should eat meat.
5. Thinking about my personal health, I am torn between the risks and benefits of eating meat.

Sensory-based ambivalence

1. I have contradictory thoughts about eating meat due to the feeling of fullness it provides.
2. When imagining how my body feels after consuming meat, I experience strong feelings both for and against meat.
3. Due to the sensations that prepared meat evokes, my thoughts and feelings towards eating meat are conflicted.
4. When I smell traditional meat dishes, I go back and forth about eating meat.
5. The taste of meat- and plant-based dishes available in restaurants makes me wonder whether I should eat meat or not.

*reverse scored

Meat-Animal Dissociation

Benningstad, N. C. G., Rothgerber, H., & Kunst, J. R. (2024). Development of the passive and active meat-animal dissociation scale (mads). *Psychology of Human-Animal Intergroup Relations*, 3, Article e12975. <https://doi.org/10.5964/phair.12975>

For each item, please indicate your agreement with the statements.

1 strongly disagree – 7 strongly agree

Passive Meat-Animal Dissociation

1. Animals rarely come to mind when I eat meat
2. I don't reflect on the connection between animals and meat
3. I have almost never thought about an animal when consuming meat
4. When I eat meat, I never think about the life of the animal I am eating
5. The thought of animals is totally irrelevant when I eat meat
6. The animal origin of meat is something I seldom think about

Active Meat-Animal Dissociation

1. I make a big effort not to think about animals when I consume meat
2. When I look at meat, I try hard not to connect it with an animal
3. To be able to eat meat, I suppress the thought that it came from an animal
4. I actively avoid meat that visibly reminds me of an animal
5. I actively avoid food products that may remind me that meat actually comes from animals
6. I try to ignore thoughts about animals when eating meat with visible blood, bones or skin

Meat Attachment Questionnaire

Graça, J., Calheiros, M. M., & Oliveira, A. (2015). Attached to meat? (Un)Willingness and intentions to adopt a more plant-based diet. *Appetite*, 95, 113-125.

Please rate the items below on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

1. To eat meat is one of the good pleasures in life.
2. Meat is irreplaceable in my diet.
3. According to our position in the food chain, we have the right to eat meat.
4. I feel bad when I think of eating meat.*
5. I love meals with meat.
6. To eat meat is disrespectful towards life and the environment.*
7. To eat meat is an unquestionable right of every person.
8. Meat consumption is crucial to my balance.
9. A full meal is a meal with meat.
10. I'm a big fan of meat.
11. If I couldn't eat meat I would feel weak.
12. If I was forced to stop eating meat I would feel sad.
13. Meat reminds me of diseases.*
14. By eating meat I'm reminded of the death and suffering of animals.*
15. Eating meat is a natural and undisputable practice.
16. I don't picture myself without eating meat regularly.
17. Meat sickens me.
18. I would feel fine with a meatless diet.*
19. Meat consumption is a natural act of one's affirmation as a human being.
20. A good steak is without comparison.

Scoring Key

Hedonism: 1, 5, 10, 20

Affinity: 4, 6, 13, 14

Entitlement: 3, 7, 15

Dependence: 2, 11, 12, 16, 18

*reverse scored

**grayed items were included on the original scale but trimmed via factor analysis

Meat Commitment

Piazza, J., Ruby, M. B., Loughnan, S., Luong, M., Kulik, J., Watkins, H. M., & Seigerman, M. (2015). Rationalizing meat consumption. The 4Ns. *Appetite*, 91, 114-128.

Please rate the following items on a 7-point scale ranging from 1 (= strongly disagree) to 7 (= strongly agree).

1. I don't want to eat meals without meat.
2. When choosing food, I virtually always select the meat option.
3. I can't imagine giving up meat.
4. I am committed to eating meat.
5. The best part of most meals is the meat portion.
6. I would never give up eating meat.
7. I cannot imagine substituting meat from a meal.

Meat Consumption: Risk Perception

Zingg, A., Cousin, M.-E., Connor, M., & Siegrist, M. (2013). Public risk perception in the total meat supply chain. *Journal of Risk Research*, 16(8), 1005-1020.
<https://doi.org/10.1080/13669877.2013.788057>

"Steps in the meat production chain are listed below. Some factors that could be critical at each production step are listed in brackets. Please indicate how risky you think the following steps are. To do this, imagine that all steps are carried out in Switzerland."

6-point scale ranging from «no risk at all» (1) to «very high risk» (6)

Risk perception at production stage:

1. Animal feed (composition, fertiliser, pesticide, antibiotics)
2. Type of livestock breeding (number of animals per m², run for animals, building grounds)
3. Hygiene (disinfection of building, cleanliness of animals)
4. Veterinary care (drugs, vaccinations)
5. Livestock transport (transport between farms, transport to slaughterhouse)
6. Slaughtering (hygiene, refrigeration)
7. Manufacture (hygiene, refrigeration, butchering)
8. Preserving (blanching, curing)
9. Addition of supplements (dyestuffs, flavour enhancers)
10. Manufacturing of products, merging of meat (minced meat, sausages)
11. Packaging (hygiene, refrigeration, fusing, packing in tin)
12. Transport to selling point (hygiene, refrigeration)
13. Storage at selling point (hygiene, refrigeration)

Risk perception at home:

1. Transport home (hygiene, refrigeration)
2. Storage home (hygiene, refrigeration)
3. Processing (hygiene, cooking, heating)
4. Storage of leftovers (hygiene, refrigeration)
5. Use of leftovers (hygiene, cooking, heating)

Meat Consumption: Subjective Knowledge

Zingg, A., Cousin, M.-E., Connor, M., & Siegrist, M. (2013). Public risk perception in the total meat supply chain. *Journal of Risk Research*, 16(8), 1005-1020.
<https://doi.org/10.1080/13669877.2013.788057>

“We are interested in how well informed you feel you are on the following subjects.”

6-point scale ranging from «not at all informed» (1) to «very well informed» (6)

1. Animal husbandry (feed, husbandry methods, hygiene)
2. Legal determining factors/approval for application of drugs and vaccinations for production animals
3. Instructions for animal transportation
4. Instructions for slaughtering (hygiene, type of slaughtering)
5. Legal determining factors/approval procedures for meat processing
6. Handling of meat products at home (hygiene, cooking, storage, use of leftovers)

Meat-Eating Justification (and adaptations for dairy, egg, fish)

Rothgerber, H. (2013). Real men don't eat (vegetable) quiche: Masculinity and the justification of meat consumption. *Psychology of Men and Masculinity*, 14(4), 363–375.

Please score the following items on a 9-point Likert scale (1 = strongly disagree; 9 = strongly agree) indicating agreement with the statements.

1. I enjoy eating meat too much to ever give it up.
2. Animals don't really suffer when being raised and killed for meat.
3. It's acceptable to eat certain animals because they're bred for that purpose.
4. To me, there is a real difference between animals we keep as pets and animals we eat as Food.
5. When I look at meat, I try hard not to connect it with an animal.
6. God intended for us to eat animals.
7. I try not to think about what goes on in slaughterhouses.
8. Meat is essential for strong muscles.
9. It wouldn't surprise me to learn that scientists believe the human body (e.g., our teeth) has evolved to eat meat.
10. Meat tastes too good to worry about what all the critics say.
11. Animals do not feel pain the same way humans do.
12. Humans are at the top of the food chain and meant to eat animals.
13. It seems wrong that people in some cultures eat dogs and cats.
14. I do not like to think about where the meat I eat comes from.
15. God gave us dominion over animals.
16. I would have problems touring a slaughterhouse.
17. We need the protein we can only get in meat for healthy development.
18. It violates human destiny and evolution to give up eating meat.
19. There is no food that satisfies me as much as a delicious piece of meat.
20. Meat is processed so that animal pain and discomfort is minimized and Avoided.
21. Ultimately, animals are here to serve our needs.
22. I am more sensitive to the suffering of house pets like cats and dogs than other wild animals.
23. When I eat meat, I try not to think about the life of the animal I am eating.
24. It is God's will that humans eat animals.
25. I try to stay away when people start talking to me in graphic terms about how the animals we eat suffer.
26. We need meat for a healthy diet.
27. Our early ancestors ate meat, and we are supposed to also.

Scoring Key

Pro-meat attitude: 1, 10, 19

Denial: 2, 11, 20

Hierarchical justification: 3, 12, 21

Dichotomization: 4, 13, 22

Dissociation: 5, 14, 23

Religious justification: 6, 15, 24

Avoidance: 7, 16, 25

Health justification: 8,17, 26

Human destiny/fate justification: 9, 18, 27

Adjusted scales for dairy, egg, and fish eating

Ioannidou, M., Lesk, V., Stewart-Knox, B., & Francis, K. B. (2023). Feeling morally troubled about meat, dairy, egg, and fish consumption: Dissonance reduction strategies among different dietary groups. *Appetite, 190*, 107024.

Please score the following items on a 9-point Likert scale (1 = strongly disagree; 9 = strongly agree) indicating agreement with the statements.

1. I enjoy eating / drinking dairy products too much to ever give them up.
2. I enjoy eating eggs too much to ever give them up.
3. I enjoy eating fish too much to ever give it up.
4. I try not to think about what goes on in the dairy industry.
5. I try not to think about what goes on in the fishing industry.
6. I try not to think about what goes on in the egg industry.
7. I do not like to think about where the dairy products I eat comes from.
8. I do not like to think about where the eggs I eat come from.
9. I do not like to think about where the fish I eat come from.
10. Dairy products are processed in a way so that animal pain and discomfort is minimized and avoided.
11. Eggs for eating are processed so that animal pain and discomfort is minimized and avoided.
12. Fish for eating are processed so that animal pain and discomfort is minimized and avoided.
13. Animals don't really suffer when being used for dairy production.
14. Animals don't really suffer when being raised and used for egg production.
15. Animals don't really suffer when being raised and killed for fish production.
16. We need dairy products for a healthy diet.
17. We need to eat fish for a healthy diet.
18. We need to eat eggs for a healthy diet.
19. I am more sensitive to the suffering of pigs and cows than of fish.
20. Dairy tastes too good to worry about what all the critics say.
21. Eggs taste too good to worry about what all the critics say.
22. Fish tastes too good to worry about what all the critics say.
23. I would have problems touring a dairy farm.
24. I would have problems touring an egg farm.
25. I would have problems touring a fish farm.
26. When I look at dairy products, I try hard not to connect it with an animal.
27. When I look at eggs to eat, I try hard not to connect it with an animal.
28. When I look at fish to eat, I try hard not to connect it with an animal

Scoring Key

Justifications (dairy)*: 1, 16, 20

Justifications (egg): 2, 18, 21

Justifications (fish): 3, 17, 22
Denial (dairy): 10, 13
Denial (egg): 11, 14
Denial (fish): 12, 15
Dissociation (dairy): 7, 26
Dissociation (egg): 8, 27
Dissociation (fish): 9, 28
Avoidance (dairy): 4, 23
Avoidance (egg): 6, 24
Avoidance (fish): 5, 25
Dichotomization (fish)**: 19

*Hierarchical, religious, and human/destiny fate justifications as included in the original MEJ scale were not included in the adapted versions

**No dichotomization items were included for dairy and egg consumption.

Meat Eating Motives (4 Ns)

Hopwood, C. J., Piazza, J., Chen, S., & Bleidorn, W. (2021). Development and validation of the motivations to Eat Meat Inventory. *Appetite*, 163, 105210.

The Meat Eating Motives Inventory measures the 4 Ns as separate scales.

Below there is a list of reasons to eat meat and other animal products like eggs and dairy. Please rate how important different reasons are for you, personally. You should give a range of ratings to indicate the reasons that are especially important for you, those that are relatively unimportant, and those that are moderately important on a scale ranging from 1 (least important) to 7 (most important).

1. It goes against nature to eat only plants.
2. Our bodies need the protein.
3. I want to fit in.
4. It is delicious.
5. It makes people strong and vigorous.
6. I don't want other people to be uncomfortable.
7. It is in all of the best tasting food.
8. It could be unnatural not to eat meat.
9. It is necessary for good health.
10. It is just one of the things people do.
11. It gives me pleasure.
12. I want to be sure I get all of the vitamins and minerals I need.
13. Everybody does it.
14. It has good flavor.
15. It gives me strength and endurance.
16. I don't want to stand out.
17. Meals without it don't taste good.
18. It is human nature to eat meat.
19. Eating meat is part of our biology.

Scales

Natural: 1, 8, 18, 19,

Normal: 3, 6, 10, 13, 16

Necessary: 2, 5, 9, 12, 15

Nice: 4, 7, 11, 14, 17

Meat Eating Rationalizations (4 Ns)

Piazza, J., Ruby, M. B., Loughnan, S., Luong, M., Kulik, J., Watkins, H. M., & Seigerman, M. (2015). Rationalizing meat consumption. The 4Ns. *Appetite*, 91, 114-128.

The 4Ns Scale measures a single overarching construct with four interrelated components

Please rate your level of agreement or disagreement with each item on a 1–7 scale
(1 = *completely disagree*; 4 = *neither agree nor disagree*; 7 = *completely agree*).

1. It is only natural to eat meat.
2. Our human ancestors ate meat all the time.
3. It is unnatural to eat an all plant-based diet.
4. Human beings are natural meat-eaters – we naturally crave meat.
5. It is necessary to eat meat in order to be healthy.
6. A healthy diet requires at least some meat.
7. You cannot get all the protein, vitamins and minerals you need on an all plant-based diet.
8. Human beings need to eat meat.
9. It is normal to eat meat.
10. It is abnormal for humans not to eat meat.
11. Most people eat meat, and most people can't be wrong.
12. It is common for people to eat meat in our society, so not eating meat is socially offensive.
13. Meat is delicious.
14. Meat adds so much flavor to a meal it does not make sense to leave it out.
15. The best tasting food is normally a meat-based dish (e.g. steak, chicken, grilled fish).
16. Meals without meat would just be bland and boring.

Meat Mindset

de Boer, J., Schosler, H., & Aiking, H. (2017). Towards a reduced meat diet: Mindset and motivation of young vegetarians, low, medium and high meat-eaters. *Appetite*, 113, 387–397.

Please score the following items on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree) indicating agreement with the statements.

Reasons for not frequently eating meat

1. I don't like meat very much.
2. I think animal welfare is important.
3. I like to vary.
4. It's healthier, not frequently eating meat.
5. It's better for the environment.
6. It is what I am used to.
7. Others in the household don't want to eat meat.
8. Because of my religion.
9. Because of my finances.

Reasons for frequently eating meat

1. It's healthier to eat meat frequently.
2. Being a meat lover.
3. It fits well with what I normally eat.
4. It is what I am used to.
5. To get satiety.
6. Others in the household want to eat meat.
7. Not liking anything else.
8. It is a sign of being wealthy.
9. The specialty of the occasion.

Mind Attribution (Animals)

These questionnaires are answered in response to the presentation of names or pictures of animals and potentially other stimuli.

Loughnan, S., Haslam, N., & Bastian, B. (2010). The role of meat consumption in the denial of moral status and mind to meat animals. *Appetite*, 55(1), 156–159.

Please rate the [cow's] capacity to experience 18 mental states, on a scale ranging from 1 (definitely does not experience) to 7 (definitely does experience).

1. Pain
2. Hunger
3. Pleasure
4. Fear
5. Happiness
6. Rage
7. Seeing
8. Hearing
9. Tasting
10. Thinking
11. Imagining
12. Wishing
13. Needing
14. Desiring
15. intending
16. Planning
17. Choosing
18. Reasoning

Scoring Key

Sensation: 1, 2, 3, 4, 5, 6, 7, 8, 9

Intellect: 10, 11, 12, 13, 14, 15, 16, 17

Bastian, B., Costello, K., Loughnan, S., & Hodson, G. (2012). When closing the human-animal divide expands moral concern: The importance of framing. *Social Psychological and Personality Science*, 36, 100–107.

Please rate the [cow's] capacity to experience 18 mental states, on a scale ranging from 1 (definitely does not experience) to 7 (definitely does experience).

1. Pain
2. Hunger
3. Pleasure
4. Fear
5. Happiness
6. Consciousness

7. Seeing
8. Hearing
9. Tasting
10. Thinking
11. Imagining
12. Wishing
13. Needing
14. Desiring
15. intending
16. Planning
17. Choosing
18. Reasoning

Scoring Key

Sensation: 1, 2, 3, 4, 5, 6, 7, 8, 9

Intellect: 10, 11, 12, 13, 14, 15, 16, 17

Bastian, B., Loughnan, S., Haslam, N., & Radke, H. R. M. (2012). Don't mind meat? The denial of mind to animals used for human consumption. *Personality and Social Psychology Bulletin*, 38, 247-256.

Please rate the degree to which each animal possessed 10 mental capacities using a 7-point scale (1 = definitely does not possess, 7 = definitely does possess).

1. hunger
2. fear
3. pleasure
4. pain
5. rage
6. self-control
7. morality
8. memory
9. emotion recognition
10. planning

Scoring Key

Experience-related capacities: 1, 2, 3, 4, 5

Agency-related capacities: 6, 7, 8, 9, 10

Mind Attribution (Animals and Humans)

Rottman, J., Crimston, C. R., & Syropoulos, S. (2021). Tree-Huggers Versus Human-Lovers: Anthropomorphism and Dehumanization Predict Valuing Nature Over Outgroups. *Cognitive science*, 45(4), e12967.

Different people, animals, and other things in the world can be distinguished from one another by how complex their feelings, thoughts, and abilities are. We would like to know how you think about the different kinds of minds listed below. Please rate the extent to which you disagree or agree with each of the following statements.

(1 = Strongly disagree; 9 = Strongly agree)

Animals

1. A panda has many feelings.
2. A tree frog can feel tired.
3. A turtle is capable of experiencing pleasure.
4. A shark is able to do things on purpose.
5. A bee is capable of planned actions
6. A penguin is self-aware.
7. A chimpanzee is highly conscious.
8. A whale can form many memories.
9. An elephant can feel depressed.
10. A vulture has free will.

Humans

11. A North Korean has an elaborate emotional life.
12. A gay man has the ability to articulate complex ideas.
13. A chain smoker is able to reason through difficult logic problems.
14. An undocumented immigrant can have a spiritual experience.
15. A Mexican has a powerful imagination.
16. An atheist has a sophisticated appreciation of beauty.
17. A prostitute can easily understand what others are feeling.
18. A physically disabled individual can experience extreme grief.
19. A Muslim can persevere to reach goals.
20. A homeless individual has the ability to conceptualize abstract ideas.

Attention checks

21. Your close friend has feelings.
22. Your cousin is able to make decisions.
23. Your neighbor has the ability to form thoughts.
24. A self-driving car can experience intense pain
25. A rock has complex goals.
26. A chair has consciousness.

Note: Statements were randomized for participants.

Moral Circle

Laham, S. M. (2009). Expanding the moral circle. Inclusion and exclusion mindsets and the circle of moral regard. *Journal of Experimental Social Psychology*, 45(1), 250–253.

When we think about entities (animals) in the world, we might feel a moral obligation to show concern for the welfare and interests of some of those entities (animals). Below is a list of entities (animals).

**these items were given to people with different instructions depending on random assignment to different conditions:*

Inclusion Mindset Condition: *Circle those that you feel morally obligated to show concern for.*

Exclusion Mindset Condition: *Cross out those that you do not feel morally obligated to show concern for.*

Non-human

1. monkeys
2. fish
3. dolphins
4. snails
5. dogs
6. elephants
7. birds
8. gorillas

Human

1. young girl
2. fetus
3. brain-dead person
4. adult man
5. baby

Please rate the extent to which you feel a moral or ethical obligation to show concern for the welfare and interests of the following groups on a 5-point scale ranging from 1 (absolutely no obligation) to 5 (very strong obligation).

1. People who practice a different religion than you.
2. People of different ethnicities than you.
3. People with different beliefs than you.

Moral Inclusion of Animals

Leite, A. C., Dhont, K., & Hodson, G. (2018). Longitudinal effects of human supremacy beliefs and vegetarianism threat on moral exclusion (vs. inclusion) of animals. *European Journal of Social Psychology*, 49(1), 179-189.

*“When we think about animals in the world, we might feel a moral obligation to show concern for the welfare and interests of some of those animals. Below is a list of animals. Please select those that you feel morally obligated to show concern for”
(0 = not selected, 1 = selected).*

(items are presented in random order)

Companion Animals

1. Cat
2. Dog
3. Horse

Appealing Wild Animals

4. Dolphin
5. Chimp
6. Bear
7. Kangaroo

Food Animals

8. Chicken
9. Goat
10. Sheep
11. Pig
12. Turkey
13. Cow
14. Duck

Unappealing Wild Animals

15. Snake
16. Snail
17. Starfish
18. Crocodile
19. Bat
20. Frog

Moral Disengagement in Meat

Graça, J., Calheiros, M. M., & Oliveira, A. (2016). Situating moral disengagement: Motivated reasoning in meat consumption and substitution. *Personality and Individual Differences*, 90, 353–364.

In recent times, meat consumption is being increasingly debated on the grounds of environmental sustainability, health and safety concerns, and animal rights/welfare arguments. Please tell us your personal opinion about meat consumption indicating the extent to which you agree with the following sentences. Try to answer as spontaneously as possible, without giving much thought to the answers. Use a scale ranging from 1 (strongly disagree) to 5 (strongly agree).

1. All things considered, meat is necessary to human diet.
2. The human being has needs that include eating meat.
3. The problems associated with meat also apply to other foods.
4. Eating meat keeps the balance of the food chain.
5. By eating meat I'm also responsible for the problems associated to its production.*
6. Even if I change my habits, I don't make a difference by myself.
7. People who eat meat should acknowledge the suffering in which food animals are kept.*
8. If I saw an animal being killed I would have no problems eating it.
9. Those who eat meat should be aware of its impacts on public health.*
10. By eating meat I engage with an industry responsible for major damages.*
11. It's important that people who eat meat think about the impacts to the environment.*
12. Nowadays there are good alternatives to meat consumption.*
13. It's possible to have an adequate diet without eating meat.*
14. It doesn't matter if I change my habits because problems will still exist.
15. It's easy to have a meat-free diet.*
16. Despite everything, eating meat is part of a balanced life.
17. If I had to kill the animals myself, I would probably stop eating meat.*
18. It would be difficult for me to watch an animal being killed for food purposes.*
19. I would be capable of skinning, separating the organs and cutting an animal to pieces.
20. I will consider changing my habits only if others also change theirs.

*reverse scored

Scoring Key

Means-ends justifications: 1, 2, 3, 4, 16

Desensitization: 8, 17, 18, 19

Denial of negative consequences: 5, 7, 9, 10, 11

Diffused responsibility: mean of items 6, 14, 20

Reduced perceived choice: 12, 13, 15

Moral disengagement in meat (global scale): mean of all items

Motives for Low or No Meat Consumption

Hagmann, D., Siegrist, M., & Hartmann, C. (2019). Meat avoidance: motives, alternative proteins and diet quality in a sample of Swiss consumers. *Public Health Nutrition*, 22(13), 2448-2459. <https://doi.org/10.1017/S1368980019001277>

1 ('totally disagree') to 7 ('totally agree')

Filter question: , 'Do you intentionally eat little or no meat?'

I eat little or no meat because...

1. ... it helps me regulate my weight
2. ...I want to eat healthily
3. ...I frequently don't like the taste
4. ... I prefer the taste of vegetarian dishes
5. ...it is better for the environment
6. ...I want to eat in an environmentally friendly way
7. ...meat production has negative effects on animal welfare
8. ... I consider it unethical that animals are killed to produce meat
9. ... my doctor recommended it to me'
10. ... my religion forbids me to eat (certain types of) meat
11. ...I was brought up that way
12. ... my social environment expects it from me

Perceptions of Meat Consumption and Production

Zingg, A., Cousin, M.-E., Connor, M., & Siegrist, M. (2013). Public risk perception in the total meat supply chain. *Journal of Risk Research*, 16(8), 1005-1020.
<https://doi.org/10.1080/13669877.2013.788057>

“Please indicate how much you agree with the following statements.”

6-point scale ranging from «do not agree at all» (1) to «completely agree» (6)

Benefits:

- Eating meat is important for my health.
- Eating meat adds to my well-being.
- Eating meat gives me energy and strength.
- Red meat is an important iron source for me.
- Meat is an important protein source for me.
- Eating meat is important, as it provides vitamins and mineral nutrients.
- If I eat too little meat, I feel somewhat unhappy.
- I feel happy while consuming meat.
- I like to eat meat.

Quality importance:

- When purchasing meat, a high price is a reliable indication of a highquality meat product.
- I never buy meat products from discount brands or discount stores.
- I rarely eat meat, but I consciously pay attention to the quality of the meat.

Concerns about animal welfare:

- I think feeding animals with industrially produced animal feeds is critical.
- In Switzerland, animal-protection arrangements are disproportionate.
- Today's large-scale livestock farming negatively influences the environment.
- Too little attention is given to the application of medicine to animals.
- Livestock transport is appropriate in Switzerland.
- Discussions about the dignity of animals go too far.
- I am not willing to support large-scale livestock farming.

Importance of origin:

- When purchasing meat, I prefer organic products.
- When purchasing meat, I prefer products coming from ethical husbandry.
- I gladly pay a higher price if I know that the animal has been kept in a species-appropriate manner.
- I gladly pay a higher price if I know that the meat comes from an environmentally friendly production facility.

Perceptions of Vegans

Aloni, M., Hopwood, C.J., Lenhausen, M.R., Rosenfeld, D.L., & Mohan, K.O. (in press). The structure and correlates of vegan stereotypes. *Group Processes & Intergroup Relations*

We would like to learn about your impressions of vegans (people who refrain from eating any animal products, such as meat, seafood, eggs, or dairy). Please rate the extent to which you think that each trait below describes vegans using a scale from 1 = not at all to 7 = extremely.

1. Kind
2. Healthy
3. Unconventional
4. Nutritionally-deficient
5. Strong-willed
6. Condescending
7. Frail
8. Warm
9. Judgmental
10. Weird
11. Self-controlled
12. Atypical
13. Pale
14. Self-righteous
15. Affectionate
16. Different
17. Weak
18. Fit
19. Compassionate
20. Emaciated
21. Principled
22. Health Conscious
23. Alternative
24. Self-important
25. Odd
26. Empathic
27. Unusual
28. Caring
29. Strange
30. Energetic
31. Arrogant
32. Malnourished
33. Nonconformist
34. Conceited
35. Unique
36. Preachy
37. Self-disciplined
38. Thoughtful

Scoring Key

Compassionate: 1, 8, 15, 19, 26, 28, 38

Healthy: 2, 18, 22, 30

Self-Disciplined: 5, 11, 21, 37

Unconventional: 3, 10, 12, 16, 23, 25, 27, 29, 33, 35

Condescending: 6, 9, 14, 24, 31, 34, 36

Unhealthy: 4, 7, 13, 17, 20, 32

Pet Attitudes

Templer, D., Salter, C. A., Dickey, S., Baldwin, R., & Veleber, D. M. (1981). The construction of a pet attitude scale. *The Psychological Record*, 31, 343-348.

Please answer each of the following questions as honestly as you can, in terms of how you feel right now on a scale ranging from 1 (= Strongly Disagree) to 7 (= Strongly Agree).

1. I really like seeing pets enjoy their food.
2. My pet means more to me than any of my friends.
3. I would like a pet in my home.
4. Having pets is a waste of money.

Social Identification with Animals

Amiot, C. E., Sukhanova, K., & Bastian, B. (2020). Social identification with animals: Unpacking our psychological connection with other animals. *Journal of Personality and Social Psychology*, 118(5), 991–1017.

Please rate the following items on a likert-type scale ranging from 1 (= strongly disagree) to 7(= strongly agree).

Animal Pride

1. I am glad to be an animal.
2. It is pleasant to be an animal.
3. Being an animal gives me a good feeling.
4. I am proud to be an animal.
5. It is good to be an animal.
5. Generally, I feel good when I think about myself as an animal.

Solidarity with Animals

6. I feel solidarity with animals.
7. I feel committed to animals.
8. I would take a substantial risk to rescue an animal in trouble.
9. I often exhibit my positive feelings about animals.
10. I feel good about animals.

Similarity to Animals

11. I have a lot in common with the average animal.
12. Animals, including human animals, have a lot in common with each other.
13. Animals, including human animals, are very similar to each other.
14. Animals are a lot alike in many respects.

Social Norm of Eating Animal by-Products

Bearth, A., Khunnutchanart, K., Gasser, O., & Hasler, N. (2021). The whole beast: Consumers' perceptions of and willingness-to-eat animal by-products. *Food Quality and Preference*, 89, 104144. <https://doi.org/10.1016/j.foodqual.2020.104144>

Response scale ranged from 1: do not agree at all to 7: fully agree

- 1) I believe that animal by-products should be part of the things that we eat.
- 2) In my family it is normal to eat animal by-products.
- 3) In my social environment, many people eat animal by-products.

Solidarity with Animals

Amiot CE, & Bastian B (2017) Solidarity with animals: Assessing a relevant dimension of social Identification with animals. PLoS ONE 12(1): e0168184.

Please rate the following items on a likert-type scale ranging from 1 (= strongly disagree) to 7(= strongly agree).

1. I feel a strong bond toward other animals
2. I feel solidarity with animals.
3. I feel close to other animals
4. I feel a strong connection to other animals.
5. I feel committed towards animals.

Speciesism

12-item Speciesism Scale

Dhont, K., Hodson, G., & Leite, A. C. (2016). Common ideological roots of speciesism and generalized ethnic prejudice: The social dominance human–animal relations model (SD–HARM). *European Journal of Personality*, 30(6), 507-522.

Please answer the following questions using a scale from 1 = strongly disagree to 7 = strongly agree.

1. Much of scientific research done with animals is unnecessary and cruel.*
2. The production of inexpensive meat, eggs, and dairy products justifies maintaining animals under crowded conditions.
3. Continued research with animals will be necessary if we are to ever conquer diseases such as cancer, heart disease and AIDS.
4. The use of animals in rodeos and circuses is cruel.*
5. I think it is perfectly acceptable for cattle, chickens and pigs to be raised for human consumption.
6. I think that human economic gain is more important than setting aside land for wildlife.
7. There is nothing wrong with killing animals for their fur to make clothes (fur coats).*
8. The slaughter of whales and dolphins should be immediately stopped even if it means some people will be out of work.
9. Breeding animals for their skins is a legitimate use of animals.*
10. It is morally wrong to hunt wild animals just for sport.*
11. The use of animals such as rabbits for testing the safety of cosmetics and household products is unnecessary and should be stopped.*
12. There is nothing morally wrong with hunting wild animals for food.

* reverse scored

8-item Speciesism Scale

Dhont, K., Hodson, G., Costello, K., & MacInnis, C. C. (2014). Social dominance orientation connects prejudicial human–human and human–animal relations. *Personality and Individual Differences*, 61–62, 105–108.

Please rate the following items on a 7-point scales ranging from 1 (strongly disagree) to 7 (strongly agree).

1. Animal research cannot be justified and should be stopped.
2. The production of inexpensive meat, eggs, and dairy products justifies maintaining animals under crowded conditions.
3. The use of animals in rodeos and circuses is cruel.
4. I get upset when I see wild animals in cages at zoos.
5. I think it is perfectly acceptable for cattle, chickens and pigs to be raised for human consumption.
6. I have seriously considered becoming a vegetarian in an effort to save animal lives.
7. I think that human economic gain is more important than setting aside land for wildlife.
8. There is nothing wrong with killing animals for their fur to make clothes (fur coats).*

* reverse scored

6-item Speciesism Scale

Caviola, L., Everett, J. A., & Faber, N. S. (2019). The moral standing of animals: Towards a psychology of speciesism. *Journal of Personality and Social Psychology*, 116(6), 1011-1029.

Please rate the following items on a 7-point scale from "Strongly disagree" to "Strongly agree".

1. Morally, animals always count for less than humans.
2. Humans have the right to use animals however they want to.
3. It is morally acceptable to keep animals in circuses for human entertainment.
4. It is morally acceptable to trade animals like possessions.
5. Chimpanzees should have basic legal rights such as a right to life or a prohibition of torture.*
6. It is morally acceptable to perform medical experiments on animals that we would not perform on any human.

* reverse scored

5-item Speciesism Scale

Piazza, J., Ruby, M. B., Loughnan, S., Luong, M., Kulik, J., Watkins, H. M., Seigerman, M. (2015). Rationalizing meat consumption: The 4Ns. *Appetite*, 91, 114-128.

Please rate your level of agreement or disagreement with the following items (1 = strongly disagree; 7 = strongly agree).

1. We should always elevate human interests over the interests of animals.
2. When human interests conflict with animal interests, human interests should always be given priority.
3. We should strive to alleviate human suffering before alleviating the suffering of animals.
4. The suffering of animals is just as important as the suffering of humans.*
5. Having extended basic rights to minorities and women, it is now time to extend them also to animals.*

* reverse scored

Tree-Huggers versus Human-Lovers

Rottman, J., Crimston, C. R., & Syropoulos, S. (2021). Tree-Huggers Versus Human-Lovers: Anthropomorphism and Dehumanization Predict Valuing Nature Over Outgroups. *Cognitive science*, 45(4), e12967.

The scale measures participants' self-reported tendencies to favor environmentalism (Tree-Hugger) and humanitarianism (Human-Lover).

A Relative Value score for this measure can be computed by subtracting the average rating on the eight items from the Human-Lover subscale from the average rating on the eight items from the Tree-Hugger subscale.

Please indicate your level of agreement with each statement below.
(1 = Strongly disagree; 9 = Strongly agree)

1. It is always crucial to protect people who are members of marginalized groups.
2. One of the most important moral issues of our time is the fair treatment of ethnic minorities.
3. I prefer to donate to charities that are aimed at ensuring social justice.
4. Diversity should be honored and upheld at all costs.
5. Overall, I don't care very much about people who live in faraway places. [R]
6. When faced with tough decisions, sometimes we have to sacrifice the rights of minorities. [R]
7. I would hesitate to change my lifestyle in order to raise the quality of life for people I don't know. [R]
8. To be truly honest, I think some groups of people don't deserve much moral concern. [R]
9. It is always crucial to protect endangered animals and their habitats.
10. One of the most important moral issues of our time is the conservation of ecosystems.
11. I prefer to donate to charities that are aimed at helping the environment.
12. Overall, I don't care very much about animals that live in faraway places. [R]
13. I would rather spend money on my family than on helping suffering animals. [R]
14. When faced with tough decisions, sometimes we have to sacrifice the rights of animals. [R]
15. I would hesitate to change my lifestyle in order to enhance the quality of wilderness I've never visited. [R]
16. To be truly honest, I think some animal species don't deserve much moral concern. [R]

[R] indicates an item that was reverse-scored. Note: Statements were randomized for participants.

Scoring Key

Human-Lover: 1, 2, 3, 4, 5, 6, 7, 8

Tree-Hugger: 9, 10, 11, 12, 13, 14, 15, 16

Relative Value score: Tree-Hugger subscale – Human-Lover subscale.

Veg*n Eating Motives

Vegetarian Eating Motives Inventory

Hopwood, C. J., Bleidorn, W., Schwaba, T., & Chen, S. (2020). Health, environmental, and animal rights motives for vegetarian eating. *PloS one*, 15(4), e0230609.

Please rate the importance of each of the following reasons for you to eat less meat or animal products. Please rate these items if you don't intend to change your diet. Scale: 1 (not important) to 7 (very important).

1. I want to be healthy.
2. Plant-based diets are better for the environment.
3. Animals do not have to suffer.
4. Animals' rights are respected.
5. I want to live a long time.
6. Plant-based diets are more sustainable.
7. I care about my body.
8. Eating meat is bad for the planet.
9. Animal rights are important to me.
10. Plant-based diets are environmentally-friendly.
11. It does not seem right to exploit animals.
12. Plants have less of an impact on the environment than animal products.
13. I am concerned about animal rights.
14. My health is important to me.
15. I don't want animals to suffer.

Scoring Key

Health: 1, 5, 7, 14

Environment: 2, 6, 8, 10, 12

Animal Rights: 3, 4, 9, 11, 13, 15

Veg*n Eating Motives Inventory Plus

Stahlmann, A.G., Hopwood, C.J., & Bleidorn, W. (2024). The Veg*n Eating Motives Inventory Plus (VEMI+): A measure of health, environment, animal rights, disgust, social, pandemic and zoonotic diseases, and farm workers' rights motives. *Appetite*, 203, 107701

Please rate the importance of each of the following reasons for you to eat less meat or animal products. Please rate these items if you don't intend to change your diet. Scale: 1 (not important) to 7 (very important).

1. I want to be healthy.
2. Plant-based diets are better for the environment.
3. Animals' rights are respected.
4. The idea of eating meat disgusts me.
5. I want to be like people in my social group.
6. Eating meat increases the risk of pandemics.
7. I want to protect the rights of people who work in animal agriculture.

8. I care about my body.
9. Plant-based diets are more sustainable.
10. I am concerned about animal rights.
11. I don't want animal meat in my body.
12. I want to be more like people I admire.
13. Pandemics are usually caused by eating animals.
14. People who work in animal agriculture are not treated well.
15. My health is important to me.
16. Plant-based diets are environmentally-friendly.
17. I don't want animals to suffer.
18. Meat is gross.
19. I want to be more popular.
20. Eating meat can cause disease in humans.
21. I want to avoid exploiting people working in animal agriculture.

Health: 1, 8, 15

Environment: 2, 9, 16

Animal Rights: 3, 10, 17

Disgust: 4, 11, 18

Social: 5, 12, 19

Disease: 6, 13, 20

Workers' Rights: 7, 14, 21

Vegetarianism / Veganism Threat

Dhont, K., & Hodson, G. (2014). Why do right-wing adherents engage in more animal exploitation and meat consumption?. *Personality and Individual Differences*, 64, 12-17.

Please answer the following questions using a scale from 1 (= strongly disagree) to 7 (= strongly agree).

(Replace vegetarianism/vegetarians with veganism/vegans to assess veganism threat)

1. The rise of vegetarianism poses a threat to our country's cultural customs.
2. Important culinary traditions which are typical to our country are starting to die out because of the rise of vegetarianism.
3. Eating meat is part of our cultural habits and identity and some people should be more respectful of that.
4. Vegetarians should have more respect for our traditional eating customs, which meat consumption is simply part of.
5. Important family traditions and celebrations are increasingly being ruined and disappearing because of the presence of vegetarians in certain families.
6. Vegetarianism has a negative influence on the [Country] economy.
7. The vegetarian movement is too involved in local and national politics.
8. Nowadays, when it comes to nutrition and meals, people listen too much to what a minority of vegetarians wants.

Stanley, S. K. (2022). Ideological bases of attitudes towards meat abstention: Vegetarianism as a threat to the cultural and economic status quo. *Group Processes & Intergroup Relations*, 25(6), 1534-1554.

Please answer the following questions using a scale from 1 (= strongly disagree) to 7 (= strongly agree).

Symbolic Threat

1. The rise of veganism and vegetarianism poses a threat to our country's cultural customs.
2. Important family traditions and celebrations are increasingly being ruined and disappearing because of the presence of vegans and vegetarians in certain families.
3. Important culinary traditions which are typical to our country are starting to die out due to the rise of veganism and vegetarianism.
4. Vegans and vegetarians need to conform to the rules and norms of [Country] society.

Realistic Threat

5. Hard-working [Country's citizens] are negatively impacted by vegans and vegetarians.
6. The [Country] economic situation is at risk due to veganism and vegetarianism.
7. The rise of veganism and vegetarianism is going to take away jobs from [Country's citizens].
8. The [Country] economy will be negatively affected by an increase in veganism and vegetarianism.

Vystopia Scale

Trenkensschuh, M., Fischer, R. L., & Hopwood, C. J. (2026). Vystopia: Development and validation of a measure of vegan-related distress. *Society & Animals*.

<https://doi.org/10.1163/15685306-bja10310>

Participant instructions

Below are statements about feelings some people have in relation to how animals are treated. Please indicate how often you experience each of these feelings, using the scale from 1 (never) to 5 (constantly).

Items

	I feel ...	1 Never	2	3	4	5 Constantly
1	distress about animal exploitation throughout the world.	☐	☐	☐	☐	☐
2	disdain for people who ignore animal suffering.	☐	☐	☐	☐	☐
3	agony that I do not do enough to help animals.	☐	☐	☐	☐	☐
4	inability to relate to people who do not share my concerns for animals.	☐	☐	☐	☐	☐
5	grief over all the animals who have been mistreated.	☐	☐	☐	☐	☐
6	outrage that humans have created systems of animal cruelty.	☐	☐	☐	☐	☐
7	inadequacy to protect animals from a cruel world.	☐	☐	☐	☐	☐
8	that my feelings about animals are not taken seriously by others.	☐	☐	☐	☐	☐

Scoring

Response scale: 1 = never, 2, 3, 4, 5 = constantly. No items are reverse-keyed. The scale score is the mean of all eight items (range 1 to 5). Higher scores indicate more vegan-related distress.

The items cover four content facets derived from Mann (2018), two items each: distress (items 1, 5), anger (items 2, 6), guilt (items 3, 7), and alienation (items 4, 8). The facets did not form separate factors. Score the scale as a single total only.

Psychometric properties

Validated in 997 vegan adults from the USA, Canada, and the EU. A single-factor model cross-validated across a test and a hold-out sample (CFA: CFI = .967, TLI = .953, SRMR = .031, RMSEA = .093). Internal consistency: $\alpha = .93$, $\omega = .94$. Strict measurement invariance held across men and women.

Materials

Preregistration, materials, and data: <https://osf.io/vdae3/>

Wild Animal Welfare

The Attitudes towards Wild Animal Welfare Scale

Slegers, W. W. A., Moss, D., McAuliffe, W. H. B., Reinstein, D. & Waldhorn, D. R. (2025). Measuring wild animal welfare attitudes: The Attitudes towards Wild Animal Welfare Scale. *Psychology of Human-Animal Intergroup Relations*, 4, e17951.

The scale includes four subscales with 4 items each.

Items rated on a 7-point Likert scale ranging from “Strongly disagree” to “Strongly agree”, in a random order.

Item	Subscale
1. I care about wild animals that are in pain, no matter whether their suffering is due to human or natural causes.	Caring
2. I care about the difficulties wild animals face in their natural environment, even when these are solely due to nature.	Caring
3. When I hear in the news about a natural disaster (e.g., earthquakes, tsunamis), I often think about the fate of wild animals living in that area.	Caring
4. When I watch nature documentaries that show wild animals in pain, it upsets me.	Caring
5. We should intervene in nature to reduce the natural hardships wild animals face.	Intervention
6. Humans should take steps to try and reduce the suffering of wild animals, even when that suffering is entirely due to natural causes.	Intervention
7. Humans should try to protect wild animals from natural threats such as predators and disease.	Intervention
8. We should intervene in nature to help wild animals that are in pain, no matter what causes their suffering.	Intervention
9. In their natural environment, unaffected by humans, wild animals live pleasant lives.	Idyllic view
10. As long as they are not harmed by humans, wild animals mostly live good lives in their natural habitats.	Idyllic view
11. Wild animals generally thrive and live pleasant lives when they're in their natural habitat.	Idyllic view
12. The natural order ensures that wild animals live mostly good lives.	Idyllic view
13. Ecosystems are too complex to predict the outcomes of efforts aimed at improving the lives of wild animals.	Ineffectiveness
14. Nothing much can be done to reduce the hardships that affect animals living in the wild.	Ineffectiveness
15. It is not possible to reliably improve the lives of wild animals.	Ineffectiveness
16. It is not possible to solve the problems that wild animals face in nature.	Ineffectiveness

Willingness to Engage with Animal by-Products

Bearth, A., Khunnutchanart, K., Gasser, O., & Hasler, N. (2021). The whole beast: Consumers' perceptions of and willingness-to-eat animal by-products. *Food Quality and Preference*, 89, 104144. <https://doi.org/10.1016/j.foodqual.2020.104144>

The response scale ranged from 1 “low willingness” to 7 “high willingness”

- 1) How high is your willingness to buy animal by-products?
- 2) How high is your willingness to cook animal by-products?
- 3) How high is your willingness to eat animal by-products?