Appendix 1: Sample

		N (22)	%
Gender	Female	9	41
	Male	13	59
Career Level	Master Student	8	36
	PhD Student	6	27
	Post-doc	5	23
	Professor	3	14
Sustainability Experience	≤ 1 year	1	5
	> 1 ≤ 5 years	6	27
	> 5 ≤ 10 years	5	23
	> 10 years	10	45
Disciplinary Background	Natural Science	8	36
	Social Science	7	32
	Other	7	32
Cultural Background	Asian	1	5
	African	2	9
	European	14	63
	North American	3	14
	South American	2	9

My name is Anna Falkenstein and I'm a master's student at Leuphana and Arizona State University in the Global Sustainability Science Program.

This interview is part of my research study that I'm conducting for my thesis.

For this, I'm looking into sustainability scientists and their meat consumption, which is why we're sitting here together today.

I have prepared a consent form that I'm asking you to read and sign. Take your time and don't hesitate if you have any questions.

Of course, you can withdraw at any time and you don't have to answer a question if you don't want to or if it makes you uncomfortable. Just let me know and we can move on to the next question.

Don't worry, this is not a test, there are no wrong answers!

Also, I would just like to say, that I will not be responding to what you say directly in order to not influence you in any way. However, I might nod or something, so you'll know I'm following.

Now, before we start, I want to double check that it's okay with you that I audio record this interview.

A. Interviewee Background

1. What is your current position/role at Leuphana?
2. How long have you been in your present position?
3. What is your highest degree?
4. What is your field of study/disciplinary background?
5. How long have you been working/studying in the field of sustainability?

B. Meat Consumption

6. Do you eat meat (including fish)?
7. How often do you eat meat in a regular week?
   - *once or twice / most days / everyday / multiple times a day*
8. Could you try and describe to me what your meals looked like in the last 2-3 days?
   - *What did you have for breakfast/lunch/dinner today/yesterday/day before?*
9. What kind of meat do you eat most regularly?
10. Is there any kind of meat that you avoid?
11. Do you consider certain labels when you eat meat? (e.g. organic/grass-fed/local)
    - *Why do you care about these labels?*
    - *Buy vs. eat*
12. Would you say your meat consumption has changed since you have been studying/working in sustainability?
    - *In what way?*

13. How would you feel if the cafeteria would not offer meat anymore?

14. What do think about vegetarianism/veganism?
    - *Can you think of any positive or negative stereotypes regarding vegetarians/vegans?*
    - *Do you have any personal experiences related to this?*
    - *Do you have friends or family members that are vegetarian/vegan?*

15. Have you ever considered or tried being vegetarian/vegan?

C. Environmental Knowledge

16. How important is it for you to behave in an environmentally friendly way?
    - *Could you tell me a few examples of such behavior in your life?*

17. How often do you consider possible negative impacts of your personal behavior on the environment?
    - *How does that make you feel?*

18. What is the biggest environmental threat/challenge in your opinion?

19. Do you think meat consumption has an impact on the environment?
    - *What kind of impact? / In what areas?*
    - *Is it a strong or weak impact?*

→ *[show statistics on iPad]*

20. Were you aware of how deep the negative impact is?

21. Seeing these graphs, what do you think about meat consumption?
    - *Do you think society should eat less meat?*
    - *Do you think society should switch to a meat-free diet?*

22. What do you think about your personal meat consumption?
    - *Do you think you should eat less meat?*
    - *Do you think you should eat meat at all?*
    - *Do you think your personal meat consumption has an impact on the environment?*
    - *Would it be possible for you to eat less/no meat?*
    - *You mentioned before you considered/have been veg – what stopped you?*

23. Considering you know about the negative impacts of meat consumption and think you should eat less/no meat why do you eat meat?
    - *Could you elaborate on that?*

24. Considering you know about the negative impacts of meat consumption why don't you think you should eat less/no meat?
    - *Could you elaborate on that?*

D. Change Agency & Role of Sustainability Scientists

    25. Are you aware of what a change agent is?

[→ give description: change agents try to advance more sustainable practices and behaviors, are committed to their cause, authentic, self-aware and maintain their integrity]

    26. What do you think of that definition?

        - Do you agree with that definition? Why / Why not? Something missing?

    27. To what extent would you say you are a change agent?

    28. Where do you think you could improve?

    29. What role do sustainability scientists play in the context of societal transformation in your opinion?

        - In what way can they be a part of such change processes?

        - Do they have a responsibility to lead with example?

    30. What role do you think you personally play in the context of societal transformation?

        - Could you give me an example for that?

        - Would you say you lead with example? How? / Why not?

        - Is that important to you? Why?

    31. What do you think about laws or regulations aiming at meat consumption?

        - Are they necessary?

        - e.g. Meatless Mondays / strict regulations on manure

        - How could they help avoid negative impacts on the environment

E. Is there a question you wanted me to ask and I didn't?

Debrief (explain more details about the research project that were not mentioned before the interview)

Knowledge-action gap

→ Knowledge does not translate into action

→ Why is that so and how does it relate to understanding of change agency and transformational processes?

→ Is there a connection between meat consumption and belief in self-efficacy?

→ Meat consumption is just one of many relevant behaviors

→ Has a deep negative impact and everyone has the chance to make personal decision about it three times a day

General Coding Rules

1. Goal of this analysis is to see why sustainability scientists eat meat and how they deal with the resulting cognitive dissonance related to their knowledge-action gap.
2. Unit of analysis are semi-structured interviews conducted with 22 sustainability scientists.
3. Codes will be assigned to the "level of meaning", that can be chunks of text that either span few words or entire paragraphs if they include one idea.
4. Each "bit of meaning" should be assigned only one code.
5. The focus of this analysis is on the narratives used by the interviewees for their meat consumption.
6. If one document includes the same code multiple times, the repetition of the code will be replaced by a memo, stating the emphasis on the specific code.
7. Theory based deductive codes are based on the pro-meat justifications by Piazza et al. (2015), the internal barriers to pro-environmental behavior by Kollmuss & Agyman (2002) as well as dissonance reducing strategies by Rothgerber (2014) and Gregory-Smith et al. (2013).
8. I will also code new emerging themes, besides the deductive coding.

Deductive Coding

Sub category	Definition	Example
Pro-meat Justifications (Piazza et al., 2015)		
Natural	Appeals to biology, biological hierarchy, natural selection, human evolution, or the naturalness of eating meat	We, in fact have canine teeth, which are indicate of meat eating animals. Herbivores have flatter teeth, but we don't.
Necessary	Appeals to the necessity of meat for survival, strength, development, health, animal population control, or economic stability	However, our bodies get specific minerals, vitamins, and oils from meat that we otherwise can't get. B12 for example would be needed to supplement. Some of the omega oils, you get from fish. So, there is a place for eating meat for everybody.
Normal	Appeals to dominant societal norms, normative behavior, historical human behavior, or socially constructed food pyramids	Humans have been eating meat for quite some time

Nice	Appeals to tastiness of meat, or that it is fulfilling or satisfying	I really, really like eating meat. My favorite dishes are meat dishes.
Internal barriers (Kollmuss & Agyeman, 2002)		
Resistance against non-conforming information	Unconsciously searching for consistency in beliefs and mental frameworks and selectively perceiving information. Information that supports existing values and mental frameworks is readily accepted whereas information that contradicts or undermines beliefs is avoided or not perceived at all	I think that's not true. I think that depends on what meat you're eating.
Denial	The refusal to accept reality or acknowledge the problem. The person filters incoming information to fit his or her version of reality	I'm not sure how big that impact is I'm a little skeptical about that.
Rational distancing	The person who rationalizes is perfectly aware of the problems but has stopped to feel any emotions about it	I'm not sure if the land use one is too critical, because land being used for different purposes doesn't seem that wrong at first.
Apathy and resignation	The result of a person feeling pain, sadness, anger, and helplessness at the same time. If the person has a strong feeling that he or she cannot change the situation (see locus of control), he or she will very likely retreat into apathy, resignation, and sarcasm. A person might stop informing himself or herself about environmental issues and focus on different aspects of life	Sometimes I get overwhelmed and know that individual behavior is really not going to create the type of change that we need, and I get depressed and figure if my impact doesn't make a difference then I should pursue other goals than just the environmental impact.
Delegation	The means is to remove feelings of guilt. The person who delegates refuses to accept any personal responsibility and blames others for environmental destruction (e.g. industries, the political system)	Related to my personal consumption behavior I do feel a little guilty but there I really blame others to be honest.
Locus of control	Represents an individual's perception of whether he or she has the ability to bring about change through his or her own behavior. People with a strong internal locus of control believe that their actions can bring about change. People with an external locus of control, on the other hand, feel that their actions are insignificant, and feel that change can only be brought about by powerful others	I'm eating meat and if I don't eat meat I won't save the world.

Responsibilities and priorities	Most important to people is their own well-being and the well-being of their family. When pro-environmental behaviors are in alignment with these personal priorities, the motivation to do them increases. If they contradict the priorities, the actions will less likely be taken	Because I also prioritize other things in my diet, like trying to eat a healthier diet, that maybe is lower on calories with eating lean proteins and vegetables.
Dissonance reducing strategies (Rothgerber, 2014; Gregory-Smith et al., 2013)		
Perceived behavioral change	Reduced meat consumption, sometimes only proclaimed. Can act as a substitute to actual change, individuals may convince themselves and others that they avoid meat consumption. This is an attempt to eliminate the cognition "I eat meat" despite evidence to the contrary	I'm happy to eat less and less meat and I actually did a vegetarian month last month.
Promised improved future behavior	Individuals proclaim the plan to change their behavior in the future	Well, of course now reading those figures I will try to reduce it at least here while eating in the mensa, I will try to find alternative dishes.
Compensatory choices	The efforts made to to compensate unethical/unsustainable choices with ethical/sustainable ones	I don't eat meat from intensive farming. I only eat meat that comes from extensive traditional practices. I have a friend who works with female herders in Spain who perform this traditional farming with nomadic movements on pastures or grass lands. Sometimes I get meat from them, female shepherds who keep that tradition alive. That's the only kind of meat I consume.

Inductive Coding

(Sub) category	Definition	Example
Positive impact of meat consumption	The understanding that consuming meat can have some kind of positive or even sustainable impact	I think we should not skip it. That's even an aspect of conservation and biodiversity because we cannot really have really rich ecosystems with lots of Species without browsers, grazers and so on.
Cultural experience and value	Cultures can be experienced through meat consumption and there is cultural value to meat consumption	One thing is, as I said, the experience, like cultural experiences. For me when I travel that is part of the experience to experience the culture through food.
Relatability of role models	Sustainability scientists as role models have to be relatable to some extent in order to be able to influence society	I rather say even if I work in sustainability and I know these things, I am not perfect. This degree of imperfection is something that we all share, yet I try to do my best being aware of eating very little meat only in certain situations and so can you. I'm in general much more in favor of this practical wisdom.

Appendix 4: Frequency of meat consumption per week

	N (22)	%
≤ 1	4	18
1 - 2	6	27
2 - 3	4	18
3 - 4	2	9
4 - 5	4	18
5 - 7	1	5
> 7	1	5

Appendix 5: Statistics used in the interviews

Goodland, R Anhang, J. (2009): "Livestock and Climate Change: What if the key actors in climate change were pigs, chickens and cows?"

Margulis, Sergio (2003): "Causes of Deforestation of the Brazilian Amazon". World Bank Working

United Nations Sixty-seventh General Assembly: Second Committee (2012): Desertification, Drought Affect One Third of Planet, World's Poorest People.
Smith, Pete & Bustamante, Mercedes, et al. "Agriculture, Forestry and Other Land Use". Intergovernmental Panel on Climate Change.

Message from Mr. Ahmed Djoghlaf (2007): Secretariat of the Convention of Biological Diversity. United Nations Economic Programme

All Graphics by Luke Jones