

Supplemental Material for:**Credibility, Communication, and Climate Change:****How Lifestyle Inconsistency and Do-gooder Derogation Impact Decarbonization Advocacy**

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Coding Participants for Click-Farm / Non-U.S. Participants

Two independent coders were told to examine two criteria before any data analysis was undertaken to determine if the MTurk participant came from the United States or was participating from an international “click farm”. First coders examined whether participants shared the exact same geolocation with other participants (which could be an artifact of using a proxy server used to get around the survey location qualifications). Second, coders examined participants’ free responses in the survey looking for a failure to answer in a coherent fashion (e.g. entering numbers, entering gibberish, extremely poor grammar, copying and pasting the survey text in the answer, or entering a single word). If both were determined to be questionable, coders marked the participant as likely being in a click farm and/or being outside the US. Coders achieved a high reliability (Kappa = 0.97).

Materials for Experimental Conditions

In creating the materials for this experiment, we kept as much language as possible the same besides the 2 variables we sought to manipulate: (1) the relation to the advocate (either a neighbor you encountered, or a expert delivering a public talk), and (2) the performance of the advocate in terms of sustainable lifestyle (either highly sustainable, somewhat sustainable, or unsustainable). The advocates relation was manipulated in the text of the first paragraph of the vignette, but otherwise was identical in the remaining two paragraphs. The second and third paragraph contain appeals to change one’s lifestyle, which are identical across all conditions. These two paragraphs also include the information about the advocate’s performance in sustainability, which vary as shown in Table S1.

Table S1.

Attributes of the three separate sustainability conditions

Performance Condition	Aspects of Sustainable Lifestyle			
	Household Energy Efficiency	Renewable Energy Program	Diet	Flying
Highly sustainable	Top 1%	Signed up	No meat or cheese	Avoids flying
Somewhat Sustainable	Top 50%	Signed up	Some meat	Avoids flying when possible
Unsustainable	Bottom 5%	Not signed up	A lot of meat	Does not avoid flying

Below is the full text of each condition's vignette.

Highly sustainable Neighbor

Imagine you are returning home from work and you see your neighbor, Katherine Branner. You know that she is knowledgeable about energy efficiency, and often advocates for living in a more environmentally sustainable way. You both say hi and start talking.

She mentions that home energy use is a huge part of a person's environmental footprint. "I recently got my home energy report in the mail. Turns out, I'm in the top 1% of homes in the neighborhood in terms of conserving energy—one of the best in the neighborhood! On top of that, I signed up for an optional renewable energy program so now my home is powered only by solar, wind and other renewable energy sources. More people should sign up for it. It only costs about 10% more than the standard package."

She goes on: "But home energy isn't the only thing that counts. What we buy, what we eat, and how much we travel also matters a lot. Eating less meat can cut down on your footprint a lot. And avoiding flying is another big factor. Everyone needs to think about doing these things to save our planet." She continues, "Personally, I don't eat meat or even cheese. I also don't fly to protect the environment."

Highly sustainable Expert

Imagine you are watching a public presentation on energy efficiency by a leading scientist Dr. Katherine Branner. You know that she is knowledgeable about energy

efficiency, and often advocates for living in a more environmentally sustainable way. After everyone is seated, she begins to talk.

She mentions that home energy use is a huge part of a person's environmental footprint. "I recently got my home energy report in the mail. Turns out, I'm in the top 1% of homes in the neighborhood in terms of conserving energy—one of the best in the neighborhood! On top of that, I signed up for an optional renewable energy program so now my home is powered only by solar, wind and other renewable energy sources. More people should sign up for it. It only costs about 10% more than the standard package."

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Somewhat Sustainable Neighbor

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Unsustainable Neighbor

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Exploratory Analyses

Individual Differences

In single variable and multiple regression analysis, we examined the effects of gender, political orientation, age, income, education, perceived climate change certainty, and perceived climate change importance on perceptions of credibility. In the multiple regression analysis, having greater perceived certainty and importance of climate change, as well as less education, all predicted greater perceptions of credibility. See Table S2 for full results.

Table S2.

Regression Analysis of Individual Difference and Demographic Measures on Credibility

Variable	Single Variable Predictor			Multiple Regression		
	<i>B</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>t</i>	<i>p</i>
Gender (0=Female, 1=Male)	-0.03	-2.29	0.022	-0.02	1.22	0.224
Political Orientation	0.04	9.46	< 0.001	0.01	1.06	0.288
Age	-0.00	-1.0	0.31	0.00	0.12	0.902
Income	-0.02	-2.82	0.005	-0.01	-1.53	0.125
Education	-0.01	-1.61	0.108	-0.15	-3.49	0.023
Climate Change Certainty	0.14	13.77	< 0.001	0.05	3.49	< 0.001
Climate Change Important	0.14	17.04	< 0.001	0.11	9.80	< 0.001

Note: Political Orientation was measured on a 7pt scale (1=Very conservative, 7=Very liberal); Climate Change Certainty was measured on a 4pt scale (); Climate Change Important was measured on a 4pt scale ().

In single variable and multiple regression analysis, we examined the effects of gender, political orientation, age, income, education, perceived climate change certainty, and perceived climate change importance on behavioral intentions. In the multiple regression analysis, we find that being liberal, younger, and having greater perceived importance of climate change all predicted greater intentions to look into the renewable energy program. While greater certainty in climate change predicts greater intentions when tested alone, in the multiple regression with all the individual difference measures, greater certainty predicts weaker intentions. See Table S3 for results.

Table S3.

Regression Analysis of Individual Difference and Demographics on Renewable Energy Intentions

Variable	Single Variable Predictor			Multiple Regression		
	<i>B</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>t</i>	<i>p</i>
Gender (0=Female, 1=Male)	-0.06	-1.29	0.116	0.01	0.31	0.759
Political Orientation	0.19	12.40	< 0.001	0.05	3.25	0.001
Age	-0.01	-4.07	< 0.001	-0.01	-3.17	0.002
Income	-0.05	-2.06	0.040	-0.02	-0.89	0.372
Education	0.00	0.16	0.875	-0.01	-0.54	0.587
Climate Change Certainty	0.47	12.65	< 0.001	-0.12	2.44	0.015
Climate Change Important	0.61	22.52	< 0.001	0.62	16.80	< 0.001

Mediational Analyses

In exploratory analyses, we assessed whether the differences in interest in signing up for the renewable energy program between the unsustainable and somewhat sustainable conditions (collapsing across expert / neighbor) are statistically mediated by changes in perceived advocate

credibility. Using a 5,000 replication bootstrapped mediation, we find a significant average causal mediation effect, $ACME = -0.629, p < .001$, and this mediation model renders the effect of condition not only insignificant, but significant in the reverse direction, $b = .290, p < .001$, such that unsustainable advocates outperform somewhat sustainable ones. These results do not differ in any substantial way when centering and standardizing the variables.

Social Distance of Somewhat Sustainable Advocates

In exploratory analyses, we found that somewhat sustainable advocates were seen as less socially distant ($M = 3.31, SD = 0.92$) than very sustainable advocates ($M = 3.42, SD = 0.88$), $t(2201) = -2.20, p = 0.028, d = -0.11$. However, there was no difference between somewhat sustainable and unsustainable advocates ($M = 3.35, SD = 0.88$), $p = 0.175$.

Full Survey Text

Informed Consent

By answering the following questions, you are participating in a study being performed by researchers at [blinded for review]. Your participation in this research is voluntary and you may decline further participation, at anytime, without adverse consequences. Any information you provide will not be accessible to others, and your anonymity is assured.

Continuing to the next page will begin the study.

More detailed consent information is below:

Description: You are invited to participate in a research study by [blinded for review] researchers. The purpose of the study is to better understand how information regarding other people's behaviors and the changing trends in others' behaviors informs or is used when considering others' and one's own attitudes or interest in related behaviors.

Time Involvement: Your participation will take approximately the amount of time advertised.

Risks and Benefits: There are no foreseeable risks or benefits for participation in this study (beyond your payment). We cannot and do not guarantee or promise that you will receive any additional benefits from this study.

Payments: You will receive the amount advertised on the HIT as payment for your participation.

Participant's Rights: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate. You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

Contact Information:

Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Protocol Director, [blinded for review] at [blinded for review].

Please continue to the next page to begin the study.

[page break]

In this survey, you'll read a description of a scenario. Please try to vividly imagine yourself being in this situation. Then we'll ask you some questions about what you might think and how you might respond.

Please give us your honest thoughts and opinions; we're interested in your views.

As mentioned in the HIT description, this survey requires you to do some reading. **It's very important for our research that you read the scenario on the following page fully and carefully; it should only take a minute. Please confirm you are willing to do so.**

Yes, I confirm I will read the scenario fully and carefully.

[page break]

Please read the following paragraphs and answer the questions that follow:

[Participants randomized to condition: one of the following six vignettes]

[page break]

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[page break]

How likely would you be to take Katherine Branner’s suggestion to look into the **optional renewable energy program**?

- Not at all likely
- A little likely
- Somewhat likely
- Quite likely
- Very likely

[page break]

Based on the description of Katherine Branner on the prior page, select to what extent you agree or disagree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I believe that Katherine Branner's behavior is consistent with her advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe Katherine Branner's advocacy is sincere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not trust Katherine Branner's authority with respect to climate science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that Katherine Branner has good reasons for her behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am doubtful of Katherine Branner's credibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that Katherine Branner provides quality advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe the information Katherine Branner told me is true	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[page break]

How much do you consider someone like Katherine Branner to be a peer?

- Not at all
- A little
- Somewhat
- Quite a bit
- A lot

How often do you think you would encounter Katherine Branner in your day to day life?

- Almost never
- Rarely
- Occasionally
- Somewhat often
- Often

How similar do you believe Katherine Branner's status in society is to your own? By 'status' we mean income, education, and career prestige.

- Not at all similar
- A little similar
- Somewhat similar
- Quite similar
- Very similar

[page break]

How do you think Katherine Branner's environmental footprint compares to the average American's footprint?

- Her footprint is **larger than average**
- Her footprint is **average**
- Her footprint is **smaller than average**
- Her footprint is **much smaller than average**
- Her footprint is **extremely small**

[page break]

In 1-2 sentences, please summarize the information Katherine Branner shared with you.

[page break]

Do you currently use **100% renewable electricity** for your home?

- Yes
- No

[page break]

Recently, you may have noticed that climate change has been getting some attention in the news. Climate change refers to the idea that the world's average temperature has been increasing over the past 150 years, may be increasing more in the future, and that the world's climate may change as a result.

What do you think? Do you think that climate change is happening?

- Yes, definitely
- Yes, probably
- No, probably not
- No, definitely not

How important is the issue of climate change to you personally?

- Very important
- Somewhat important
- Not too important
- Not at all important

[page break]

What is your age?

During 2017, what was your yearly household income before tax? Your best estimate is fine.

- None
- less than \$20,000
- \$20,000 - \$40,000
- \$40,000 - \$80,000
- \$80,000 - \$120,000
- \$120,000 - \$200,000
- more than \$200,000

What is the highest level of education you have attained?

- Some schooling, but no diploma or degree
- High school diploma or GED
- Some college
- College degree
- Some graduate school
- Graduate degree

What is your zip / postal code?

What is your gender?

- Man
- Woman
- Non-Binary

Which best describes your political orientation?

- Very Conservative
- Conservative
- Somewhat Conservative
- Moderate
- Somewhat Liberal
- Liberal
- Very Liberal

[page break]

Do you have any additional thoughts or comments about the survey that you would like to share with us?

Thanks for your participation! Your confirmation number will be given to you on the next page.

[page break]

[confirmation # provided]