

Supplementary Materials 1: Pilot Study (Introduction)

As part of a class exercise, 60 students read the absolutism probe and indicated which of several re-descriptions best captured what it meant to them to “agree” with the statement. Participants chose one or more of the following options (with [b] and [c] counterbalanced for order):

- a. I believe that the use of genetic engineering in food production has no benefits whatsoever.
- b. I believe that the use of genetic engineering in food production has a great many benefits and relatively few risks. But I believe it should be prohibited in spite of that.
- c. I am imagining a hypothetical world in which the use of genetic engineering in food production would have a great many great benefits and relatively few risks. But I believe it should be prohibited even in this world.

Though (c) is the option most consistent with Scott, Inbar and Rozin’s (2016) intended meaning, only 29 participants indicated that (c) was the meaning portrayed by the statement. Of the remaining participants, one selected (a), 20 selected (b), and 10 thought that (b) and (c) captured the meaning equally well. All in all, only 48% understood the statement as specifically intended by Scott et al. while the remaining 52% interpreted it either in accordance with the alternative meaning we proposed or found it ambiguous between the intended meaning and one of the alternative meanings.

Furthermore, one could argue that the conditions under which the study was carried out were maximally conducive to interpretative accuracy. Our sample consisted of Ivy-league students who were asked to carefully consider and whose attention was explicitly drawn to the semantics of the question. By contrast, the use of this probe by Scott et al. (2016) has presumably taken place under conditions which license far less reflection (e.g., being embedded in a long online survey amidst many similar questions). Thus, while preliminary, these findings led us to suspect that a large number – possibly a majority – of participants in Scott et al.’s original study did not understand the question as intended.

Supplementary Materials 2: Additional Methodological Details for Study 3

Text of Counterfactuals (with brackets signaling alternate versions):

Earth X: “Now, we would like you to imagine something. Imagine that you are no longer on this Earth but **on an Earth-like planet in a parallel universe called "Earth X"** where human culture and society is much the same as it is here on Earth but where scientists and policy makers are **100 percent certain** that the use of genetic engineering does significantly more [good than bad] [bad than good]. Not only has it been shown conclusively [not to harm the environment, biodiversity, or human health, but it has been shown to be highly beneficial to all of the above] [not to help Earth X's environment, biodiversity, or human health, but it has been shown to be highly damaging to all of the above].”

Future Earth: “Now, we would like you to imagine something. Imagine that you are **living on Earth, 250 years from now**, where genetic engineering has been studied and researched with exceptional rigor and depth. As a result of this extensive, deep research, **it is 100 percent**

certain that the use of genetic engineering does significantly **more** [good than bad] [bad than good]. Not only has it been shown conclusively [not to harm the environment, biodiversity, or human health, but it has been shown to be highly beneficial to all of the above] [not to help Earth X's environment, biodiversity, or human health, but it has been shown to be highly damaging to all of the above].”

Counterfactual Reasoning Manipulation Check

“Could you please indicate now, as honestly as you can: in your own judgment, were you successful in imagining the hypothetical [Earth X] [future Earth] where genetic engineering in food production does significantly more bad than good? Would you say you were successful or did you have some difficulty doing so?”

Verification Statements

Table S1 below contains the verification statements that participants saw at the end of each branch of the interview protocol.

Table S1

Final verification statements based on prior responses to in the structured interview.

Attitude	Current View	Counterfactual	Verification Statement
Oppose	Bad > Good	Change	I am opposed to GEF unless it does more good than bad.
	Bad > Good	No Change	I oppose GEF even in an imagined world where it does significantly more good than bad.
	Good > Bad	-	I oppose GEF while believing that it does more good than bad.
Not Oppose	Bad > Good	-	I am OK with GEF while believing that it does more bad than good.
	Good > Bad	Change	I am Ok with GEF unless it does more bad than good.
	Good > Bad	No Change	I am OK with GEF even in an imagined world where it does significantly more bad than good.

Note: “Change” refers to whether participants now oppose or do not oppose GEF in the imagined case where the balance of good and bad effects is in opposition to the currently held view.

In all cases, participants could indicate “*No I do not hold this combination of beliefs.*”

“GEF” stands for “*genetic engineering in food production.*”

References

Scott, S. E., Inbar, Y., & Rozin, P. (2016). Evidence for absolute moral opposition to genetically modified food in the United States. *Perspectives on Psychological Science*, *11*, 315-324.