Supplement: The role of consumer knowledge in reducing the demand for palm oil

Online study

For the assessment of objective palm-oil-related knowledge, we administered five additional questions that we excluded for all analyses. Three binary-response questions were excluded because of potentially being ambiguous and two ranking tasks (ordering vegetable oils and uses of palm oil according to their prevalence) were excluded because of using a different response format. Results were not affected by these exclusions.

Participants also completed two personality measures. These measures were included to explore potential predictors of palm-oil-related knowledge. The first measure was a 15-item short version of the Big Five Inventory (Soto & John, 2017) for the assessment of global personality traits. The five scales of the inventory had very low reliability in our sample (mean $\alpha = .53$), which should be taken in account when interpreting the results obtained from this measure. In addition, we assessed the more specific construct of Consideration for Future Consequences (CFC) as a typical predictor of pro-environmental attitudes and behavior. Participants rated twelve statements on a five-point scale (1: extremely uncharacteristic – 5: extremely characteristic; Strathman, Gleicher, Boninger, & Edwards, 1994). Reliability of this measure was acceptable ($\alpha = .76$).

As can be seen from inspection of Table S1, CFC was similarly related to subjective knowledge, $r = .36$, $p < .001$, objective knowledge, $r = .31$, $p < .001$, and behavioral intention, $r = .28$, $p < .001$. However, the correlations found between subjective knowledge and objective knowledge and between subjective knowledge and intention cannot entirely be attributed to common associations with CFC. Subjective knowledge correlated significantly with both objective knowledge, $r = .35$, $p < .001$, and intention, $r = .41$, $p < .001$, in partial correlation analyses controlling for CFC. The correlation between objective knowledge and intention was not significant when controlling for CFC, $r = .08$, $p = .356$.

Table S1.
Pearson correlations between all variables assessed in the online study

	1	2	3	4	5	6	7	8	9	10
1. Subjective knowledge										
2. Objective knowledge	.47*									
3. Intention	.42*	.16								
4. Age	.17	.10	.20*							
5. Gender (0 = male, 1 = female)	-.01	-.21*	.10	-.01						
6. CFC	.36*	.31*	.28*	.12	.04					
7. Extraversion	.03	.11	-.06	.02	.10	.12				
8. Agreeableness	.08	-.08	.23*	.15	.19*	-.02	-.19*			
9. Conscientiousness	-.16	-.05	.06	.02	.07	.07	.08	-.12		
10. Neuroticism	-.06	-.05	.11	.10	.13	.05	-.26*	.05	-.22*	
11. Openness	.33*	.11	.26*	.09	-.14	.18*	.11	.01	-.05	.01

Note. Correlations involving gender are based on 140 participants as one participant preferred not to reveal their gender. $*p < .05$.

Table S2.
Linear regression predicting participants' intention to avoid consuming palm oil (online study)

	b	95% CI	β	t	p
(Constant)	1.80	[-1.15, 4.74]		1.21	.230
Objective knowledge	-0.01	[-0.09, 0.07]	-0.02	-0.28	.782
Subjective knowledge	0.17	[0.11, 0.23]	0.46	5.47	<.001
Age	0.09	[-0.02, 0.19]	0.13	1.66	.099
Gender (0 = male, 1 = female)	0.38	[-0.18, 0.94]	0.10	1.34	.183

Note. The analysis is based on 140 participants as one participant preferred not to reveal their gender. Adjusted R^2 = .22. CI = confidence interval for *b*.

Laboratory study

Note that the objective knowledge questions that we excluded in the online study were not administered in the laboratory study. Due to the resulting imbalance of target items (that required 'yes' as the correct response) and distractor items (that required 'no' as the correct response), one target item was replaced with a distractor item.

In addition to questions about palm-oil-related knowledge and intentions, participants completed the 15 items of the revised New Environmental Paradigm Scale (NEP, Dunlap, van Liere, Mertig, & Jones, 2000) as a measure of environmental concern. Participants responded on a 5-point Likert scale (ranging from strongly disagree to strongly agree). Reliability of the NEP sum score was $\alpha = .72$.

As can be seen from inspection of Table S3, NEP sum scores were correlated with subjective knowledge, $r = .15$, $p = .024$, objective knowledge, $r = .15$, $p = .027$, and behavioral intention, $r = .30$, $p < .001$. However, the correlations found between subjective knowledge and objective knowledge and between subjective knowledge and intention cannot entirely be attributed to common associations with NEP. Subjective knowledge correlated significantly with both objective knowledge, $r = .20$, $p = .004$, and intention, $r = .34$, $p < .001$, in partial correlation analyses controlling for NEP. The correlation between objective knowledge and intention was not significant when controlling for NEP, $r = .07$, $p = .273$. NEP did not moderate the effect of making seeing optional palm-oil-related information the default option, $\chi^2(1) = 1.40$, $p = .237$.

Table S3.
Pearson correlations between all variables assessed in the
laboratory study

	1	2	3	4	5	6
1. Subjective knowledge						
2. Objective knowledge	.21*					
3. Intention	.36*	.12				
4. Reading time	-.09	.11	.01			
5. NEP	.15*	.15*	.30**	.15*		
6. Age	.28**	.17**	.31**	.12	.13*	
7. Gender (0 = male, 1 = female)	.12	-.03	.25**	.00	.19*	-.01

Note. *$p < .05$.

Table S4.
Linear regression predicting participants' intention to avoid consuming palm oil
(laboratory study)

	b	95% CI	β	t	p
(Constant)	1.96	[-0.27, 4.19]		1.73	.085
Objective knowledge	0.01	[-0.06, 0.09]	0.02	0.38	.705
Subjective knowledge	0.10	[0.05, 0.14]	0.27	4.14	<.001
Age	0.09	[0.04, 0.14]	0.23	3.69	<.001
Gender (0 = male, 1 = female)	0.91	[0.41, 1.41]	0.22	3.61	<.001

Note. Adjusted $R^2 = .21$. CI = confidence interval for b.

Figure S1. Manipulation of the default setting in the laboratory study.

References

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Strathman, A, Gleicher, F, Boninger, DS, Edwards, CS (1994) The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology* 66: 742-752.