Supplementary information

Religious beliefs and public attitudes to nanotechnology in Europe and the US

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Figure S1: Stagnant Levels of Information about Nanotech in the US

Results from US surveys in 2004 and 2007 show virtually no changes in levels of public knowledge about nanotechnology. In addition, levels of technical understanding of nanotechnology (definitions of nanometer, and size relative to an atom) are close to 50 percent, i.e., the distribution of correct and incorrect responses that could be expected based on pure chance.

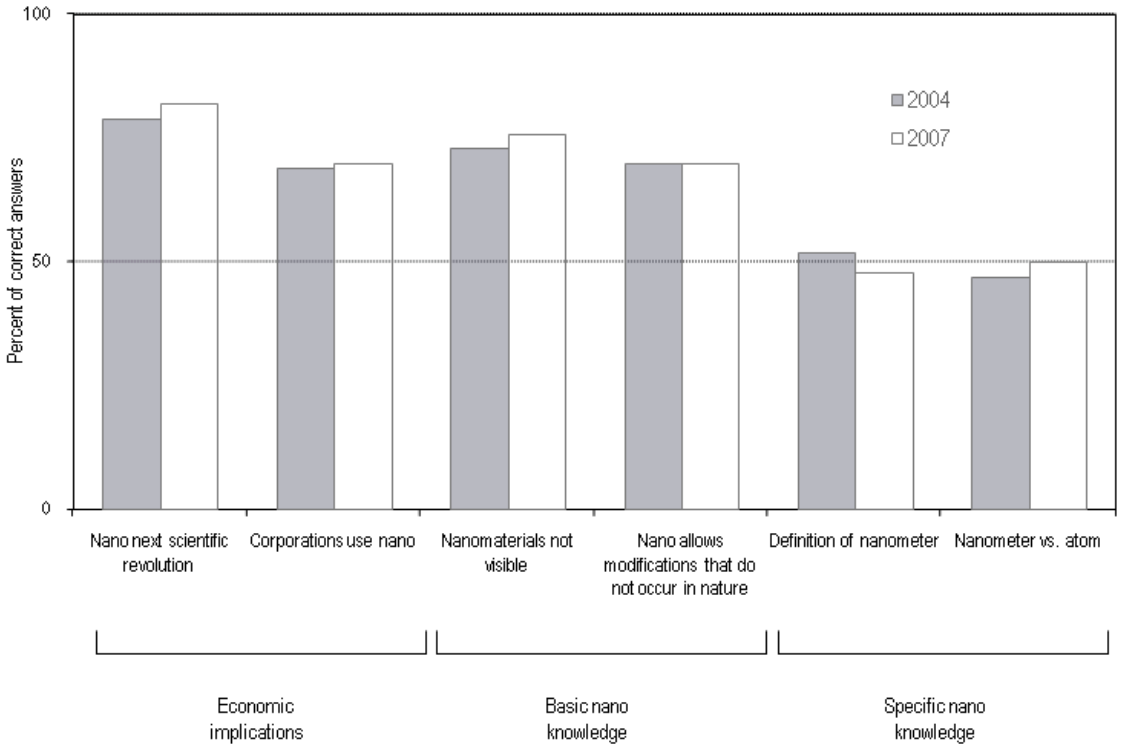

Figure S2: Nanotechnology is morally acceptable": Probabilities of falling into the "strongly agree" vs. undecided middle category across levels of religiosity

The multinomial logit models outlined in the manuscript show a direct link between levels of religiosity and views about the moral acceptability of nanotechnology. In order to illustrate this relationship, we ran additional models predicting the probabilities of falling into various agree and disagree categories, as compared to the undecided middle category. When plotting the probabilities of falling into the "strongly agree" category (as opposed to the undecided middle category), the results show a slightly non-linear and steady decline as levels of religiosity increase.

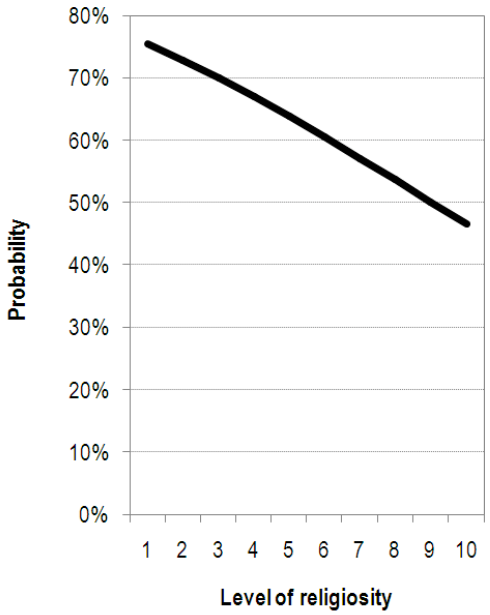

Table S1: Question Wording

Religiosity
(World Values Survey 2004)
"How important is God in your life?"

Moral acceptance/Usefulness
(Eurobarometer 64.3 and the US Public Awareness of Nanotechnology Study)
"For each of the following issues regarding nanotechnology, please tell me if you agree or disagree with it."
1) Nanotechnology is morally acceptable
2) Nanotechnology is useful for society

Trust in Scientists
(US Public Awareness of Nanotechnology Study)
"Next I am going to give you a list of statements people have made about the role of science in our society. For each of these statements, could you tell me how much you agree."
1) Scientists know best what is good for the public

Knowledge about Nanotechnology
(US Public Awareness of Nanotechnology Study)
"Next, I am going to read a few statements about science and technology. For each one, please tell me if you think the statement is true or false."
1) Nanotechnology involves materials that are not visible to the naked eye.
2) US corporations are not using nanotechnology to make products sold today.
3) Experts consider nanotechnology to be the next industrial revolution of the US economy.
4) A nanometer is a billionth of a meter.
5) Nanotechnology allows scientists to arrange molecules in ways that do not occur in nature.
6) A nanometer is about the same size as an atom.

Science News Use
(US Public Awareness of Nanotechnology Study)
"Please tell me how much attention you pay to the following kinds of stories when you read the newspaper/ on television/ when you go online to learn about things."
1) Stories related to science and technology
2) Stories about scientific studies in new areas of research such as nanotechnology
3) Stories about the social or ethical implications of emerging technologies.

Individual-level analyses also included exogenous controls for age, gender, and ethnicity (white versus non-white).

Table S2: Predicting Moral Acceptance in the US (Individual-Level Data)

Results show a significant negative correlation between religiosity and agreement that nanotechnology is morally acceptable. This relationship holds even after potential mediators are included as control variables.

Multinomial logistic regression was used because of the ordinal nature of the dependent variable and the fact that the parallel regression assumption was violated when using an ordered logit model. Coefficients represent the impact that any given variable has on the log odds of being in a particular category (compared to the "strongly agree" category). For a graphic overview, see Supplementary Information, Figure S2.

	"Nanotechnology is morally acceptable." (1=Strongly disagree; 5=Strongly agree)			
	Parameter Estimates for DV=1	Parameter Estimates for DV=2	Parameter Estimates for DV=3	Parameter Estimates for DV=4
Intercept	4.40**	2.64**	3.88**	1.36
Age	0.00	-0.00	-0.01	-0.01
Gender (1=Male; 0=Female)	0.49	0.43	0.33	-0.02
Education Level	-0.52**	-0.27**	-0.14	0.03
Ethnicity (1=Caucasian; 0= Non-Caucasian)	1.03*	0.63	0.35	-0.02
Religious Guidance	0.27**	0.18**	0.14**	0.09*
Trust in Scientists	-0.38**	-0.20**	-0.12**	-0.04
Knowledge of Nanotechnology	-0.34**	-0.26*	-0.27**	-0.21*
Attention to NP Science	0.00	-0.02	0.00	0.03
Attention to TV Science	-0.06*	-0.01	-0.04*	-0.03
Attention to Web Science	-0.09**	-0.04*	-0.03*	-0.01

Nagelkerke Pseudo R-square	26.9%
Chi-Square Model Test	$X^2 = 275.41$, $df = 40$, $p \leq 0.001$

Note: * $p \leq 0.05$, ** $p \leq 0.01$

Table S3: Predicting Regulatory Stances Across Countries

Additional analyses show that the bivariate relationship between regulatory stances toward nanotechnology and views about the moral acceptability of nanotechnology hold in multivariate models, after controls that are comparable across all countries are taken into account.

Response categories include 1= "I approve of nanotechnology as long as the usual levels of government regulation are in place;" 2= "I approve of nanotechnology if it is more tightly regulated;" 3= "I do not approve of nanotechnology except under very special circumstances;" 4= "I do not approve of nanotechnology under any circumstances." The last category was used as the reference group in the multinomial regression model. All coefficients are log odds.

	"Regulatory scenarios"		
	Parameter Estimates for DV=1	Parameter Estimates for DV=2	Parameter Estimates for DV=3
Intercept	2.20**	2.55**	1.59**
Age	-0.02**	-0.01**	-0.01
Gender (1=Male; 0=Female)	-0.52**	-0.33*	-0.10
Moral acceptance (-2=strongly disagree; 2=strongly agree)	2.11**	1.60**	0.80**
Nagelkerke Pseudo R^2	0.33		
Chi-Square Model Test	$X^2 = 2086.07$, $df = 9$, $p \leq 0.001$		

Note: * $p \leq 0.05$, ** $p \leq 0$.