

Chapter 12

THE SUSTAINABILITY CHALLENGE

Table 12.1: The Impact of the Components of Human Empowerment on Different Aspects of Ecological Sustainability

<i>PREDICTORS</i> (2005):	<i>DEPENDENT VARIABLES</i> (2010):											
	Environmental Impact ¹⁾			Environmental Quality ²⁾			Ecological Sustainability ³⁾					
Technological Advancement	.37 (6.22)***		.39 (8.30)***	.21 (3.10)***		.34 (5.83)***	- .46 (-2.87)**		- .23 (-1.66) [†]			
Emancipative Values	.18 (1.46) [†]		.61 (3.95)***	.31 (2.20)**		.83 (5.94)***	1.00 (2.99)***		.33 (0.94) [†]			
Civic Entitlements			.09 (1.49) [†]	.07 (2.07)*		.07 (1.37) [†]	.01 (0.31) [†]		- .04 (-0.79) [†]	.17 (1.60) [†]		
Constant	- .08 (-2.21)**		- .09 (1.83)*	- .04 (-1.98)*		.36 (9.40)***	.29 (6.61)***	.43 (15.3)***		.25 (2.80)**	.29 (2.69)**	.48 (7.16)***
Adj. R ²	.80		.64	.80		.62	.58	.55		.14	.00	.02
<i>N</i>	48		48	47		52	51	50		48	48	47

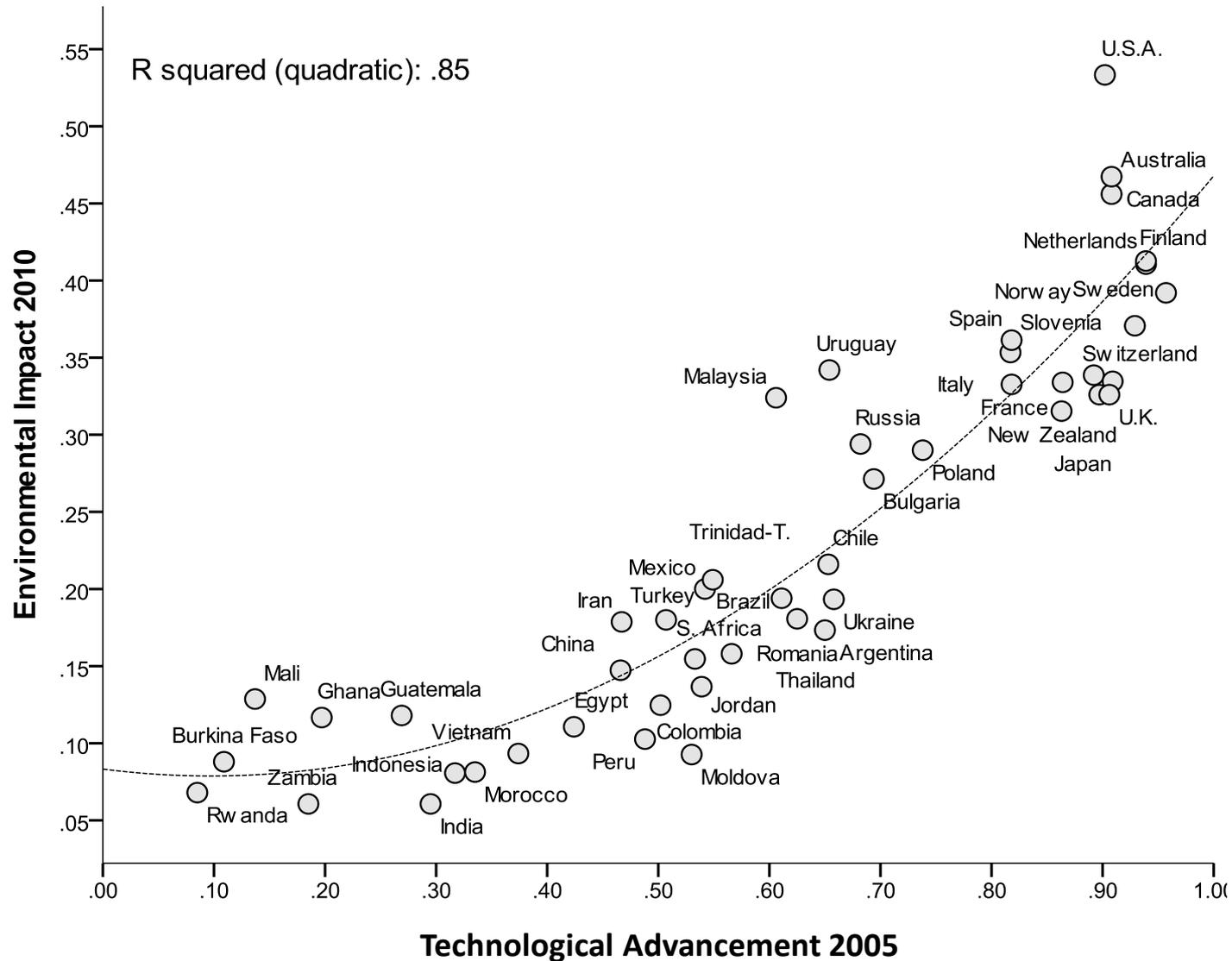
Note: Evidence limited to WVS round V. Test statistics of heteroskedasticity (White-test), multicollinearity (variance inflation factors) and influential cases (DFFITs) reveal no violation of OLS assumptions. Significance levels: * p<.050; ** p<.010; *** p<.001; [†] not significant (p>1.0).

¹⁾ Ecological Footprint in global hectares per capita, standardized into a theoretical range from 0 to 1.0 (Global Footprint Network 2012).

²⁾ Environmental Performance Index, standardized into a theoretical range from 0 to 1.0 (Yale Center for Environmental Law and Policy 2012).

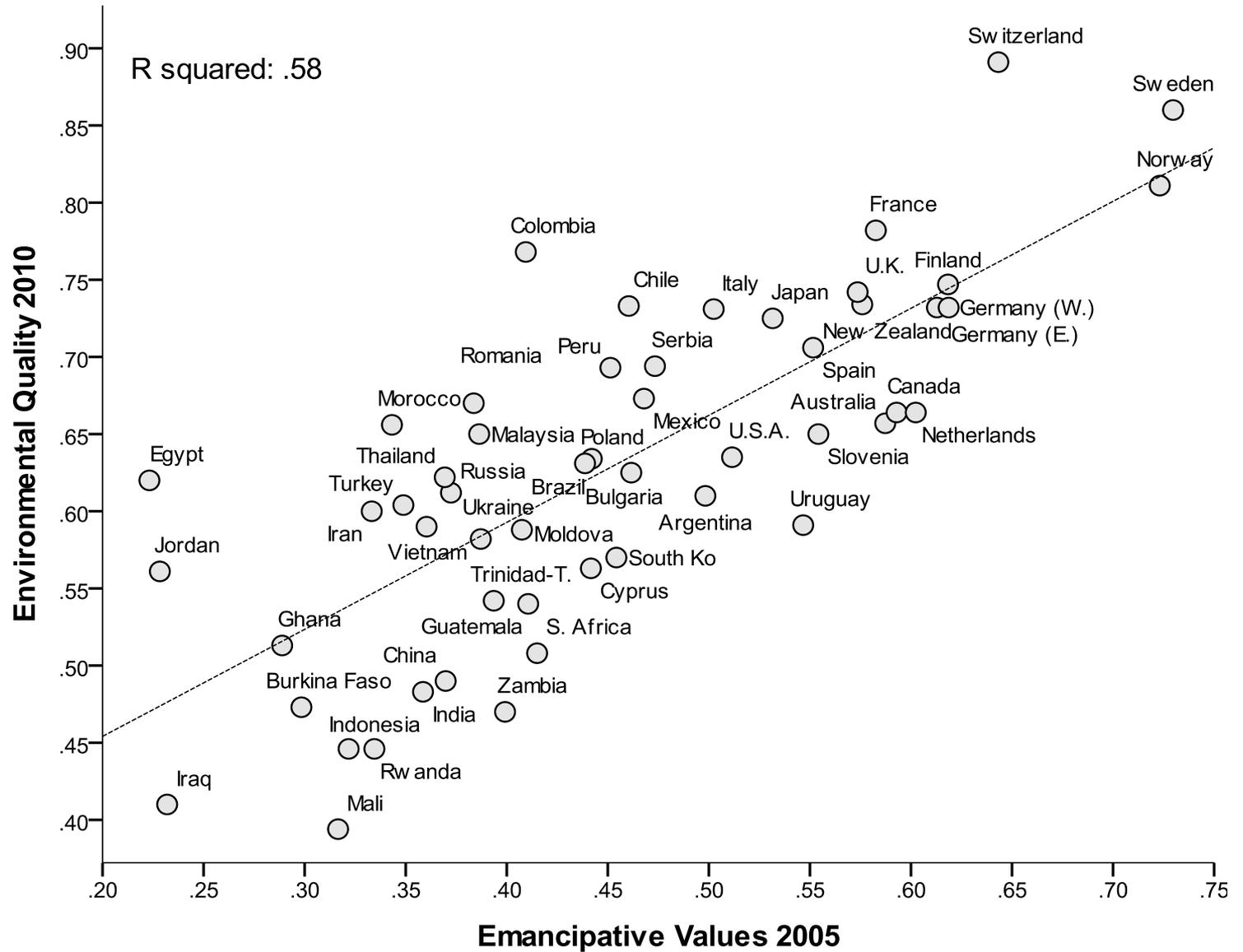
³⁾ Ratio of Biocapacity/per capita to Ecological Footprint/per capita (in global hectares per capita), logged and standardized into a theoretical range from 0 to 1.0.

Figure 12.1: The Effect of Technological Advancement on a Society's Environmental Impact



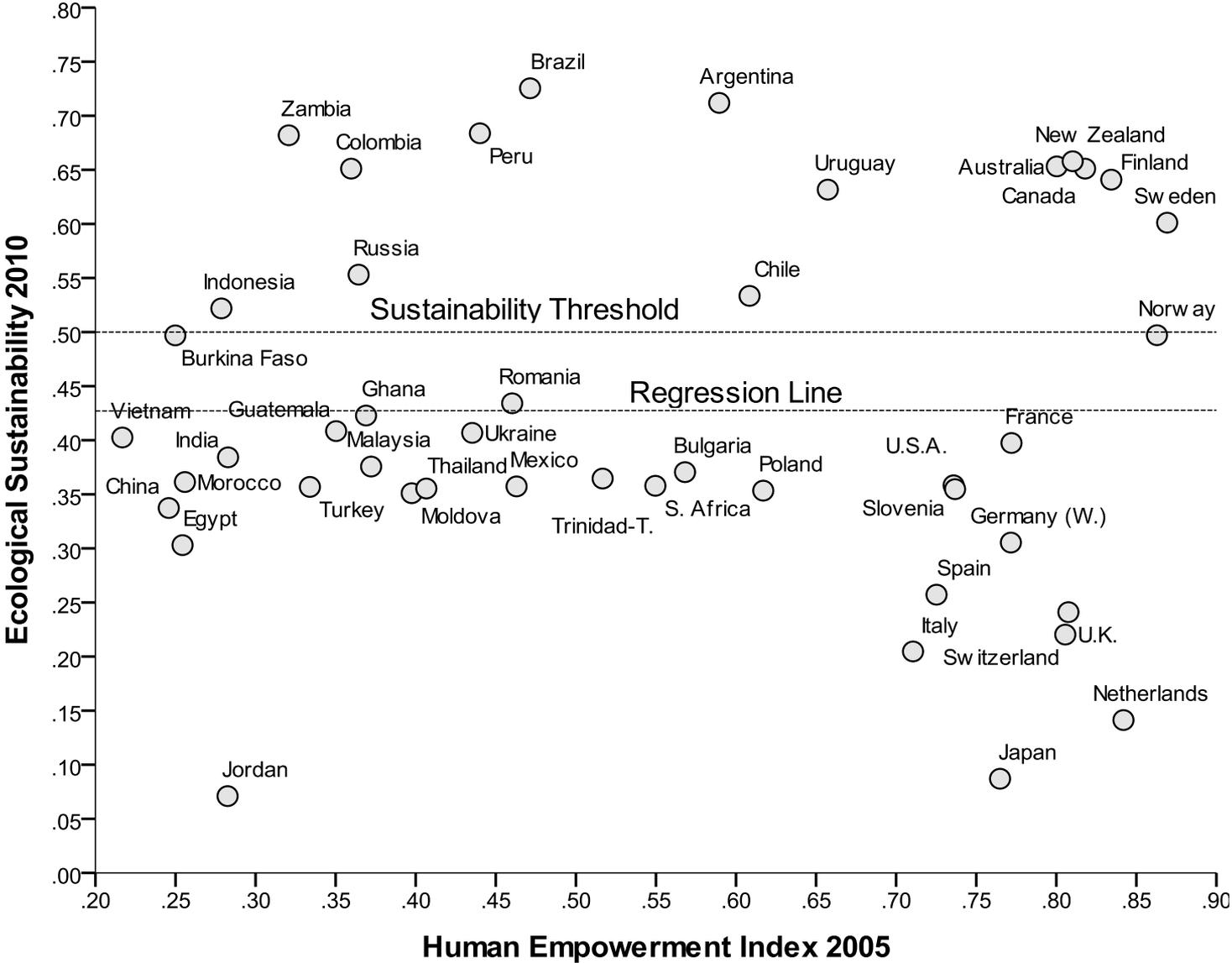
Data Coverage: All of the 50 societies with valid data surveyed in round five of the WVS.

Figure 12.2: The Effect of Emancipative Values on a Society's Environmental Quality



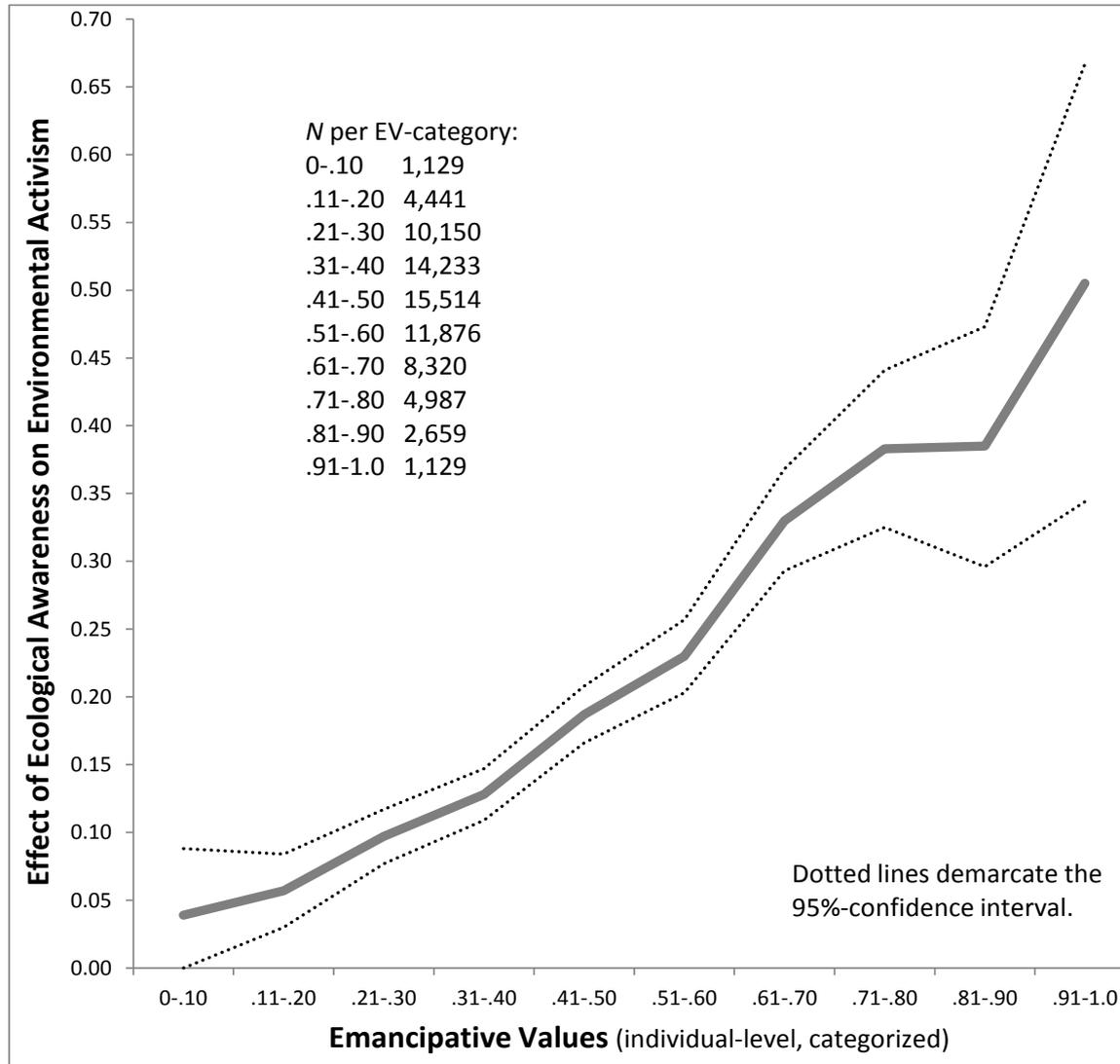
Data Coverage: All of the 50 societies with valid data surveyed in round five of the WVS.

Figure 12.3: The Effect of Human Empowerment on a Society's Ecological Sustainability



Data Coverage: All of the 50 societies with valid data surveyed in round five of the WVS.

Figure 12.4: Emancipative Values as an Amplifier of the Impact of Ecological Awareness on Environmental Activism



Note: Vertical axis shows the magnitude of the unstandardized regression coefficient of ecological awareness on environmental activism.

Data Coverage: Respondents with valid data from all of the 50 societies surveyed in WVS-round five. National samples are weighted to equal size.

Table 12.2: The Effects of Emancipative Values on Environmental Activism (multi-level models)

PREDICTORS:	DEPENDENT VARIABLE: Environmental Activism		
	Values-Model	Technology-Model	Institutions-Model
• Constant	.20 (17.44)***	.20 (14.38)***	.20 (15.03)***
<i>Societal-level Effects:</i>			
• EV ^{a)} -Prevalence	.39 (3.54)***		
• Technological Advancement		.03 (0.33) [†]	
• Civic Entitlements			.04 (0.86) [†]
• Average 'Green' Concern	.08 (0.88) [†]	.08 (0.68) [†]	.06 (0.57) [†]
• Environmental Quality	.08 (0.61) [†]	.20 (1.13) [†]	.22 (1.86)*
<i>Individual-level Effects:</i>			
• Female Sex	-.02 (-5.68)***	-.02 (-5.68)***	-.02 (-5.70)***
• Birth Year (indexed)	-.05 (-3.20)***	-.05 (-3.25)***	-.05 (-3.21)***
• Formal Education	.13 (11.74)***	.14 (11.80)***	.14 (11.76)***
• Income Egalitarianism	.01 (1.06) [†]	.01 (1.10) [†]	.01 (1.08) [†]
<i>Cross-level Interactions:</i>			
• Personal 'Green' Concern	.18 (10.61)***	.18 (10.30)***	.18 (9.84)***
* EV ^{a)} -Prevalence	.69 (3.32)***		
* Technological Advancement		.37 (2.50)**	
* Civic Entitlements			.12 (1.55) [†]
* Average 'Green' Concern	.03 (0.16) [†]	.07 (0.46) [†]	.03 (1.50) [†]
* Environmental Quality	.15 (0.70) [†]	-.15 (-0.51) [†]	.35 (2.12)**
• EV ^{a)} -Preference	.25 (13.51)***	.25 (13.31)***	.25 (13.58)***
* EV ^{a)} -Prevalence	.58 (2.49)**		
* Technological Advancement		.28 (1.78)*	
* Civic Entitlements			.15 (1.63) [†]
* Average 'Green' Concern	.52 (2.76)**	.56 (2.52)**	.45 (1.77)*
* Environmental Quality	.79 (3.54)***	.57 (1.86)*	.91 (4.71)***
Percent Error Reduction:			
Within-societal Variation in DV	14.2%	14.2%	14.2%
Between-societal Variation in DV	52.9%	28.6%	34.7%
Variation in Awareness Effect	66.4%	65.4%	65.5%
Variation in Value Effect	46.9%	44.8%	34.3%
<i>N</i> (number of observations)	42,505 respondents in 40 societies		

Notes: Entries are unstandardized regression coefficients with T-ratios in parentheses based on robust standard errors. Calculations with HLM 6.08. Respondents weighted to obtain equal sample size for each society (without changing the overall *N*). Individual-level variables are country-mean centered; societal-level variables are global-mean centered. All individual-level effects specified as random. Percent error reduction calculated relative to empty model. Significance levels: [†] $p \geq .100$, * $p < .100$, ** $p < .050$, *** $p < .005$. Replacing the emancipative values index with the voice-index at both levels of analysis, the error reduction in the between-societal variation of the DV is 20.8%, that in the within-societal variation 12.6% and 41.8% in the awareness effect and 46.1% in the values effect. *Source:* WVS, round V (ca. 2005).

^{a)} EV – Emancipative Values