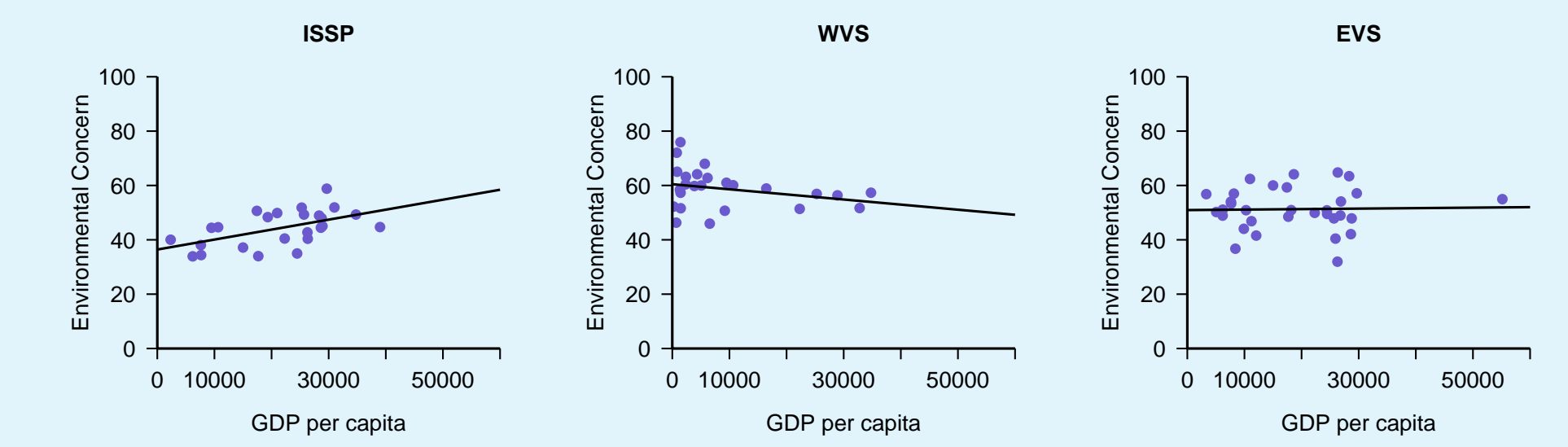


Problem

Comparing the International Social Survey Programme (ISSP), the World Values Survey (WVS) and the European Values Study (EVS) with regard to environmental concern results in contradictory effects of countries’ wealth.



Part of these differences in responding could simply be artifacts of cultural differences in acquiescence.

Acquiescence is the tendency of respondents to agree with questions regardless of their content (*yes-manship*). People tend to agree in surveys because socially desirable responses are strategies for saving face especially if people try to avoid uncertainty (*courtesy bias*).

This response bias is a more serious problem in collectivistic countries. Here, conformity and group cohesion are more important than variety and individual autonomy.

To take the response bias into account when comparing environmental concern we (1) measure acquiescence, (2) weight environmental concern by acquiescence and (3) compare models explaining environmental concern with and without controlling for acquiescence.

Conclusion

We show that acquiescence suppresses a positive correlation between environmental concern and countries’ wealth measured in GDP per capita. As soon as acquiescence is controlled, a positive effect appears.

In this regard, we find out:

- the lower the status (measured in income) and the educational level of respondents, the stronger their acquiescence;
- people in more collectivistic countries (Eastern Asia, Africa, Eastern Europe) tend to agree more often than people in individualistic countries (U.S., UK, Canada, Netherlands, Sweden, Norway);
- countries with higher GDP per capita tend to have a lower acquiescence.

To define a more accurate measure for acquiescence, counterfactual questions should be included in international surveys.

Literature

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Measuring Acquiescence

Acquiescence per Country and Dataset						
	Acqui. ISSP		Acqui. WVS		Acqui. EVS	
	2000	99-06	2000	2005	2000	2008
Albania			0.66			
Argentina			0.62	0.66		
Austria	0.45	0.56			0.50	0.61
Bangladesh			0.65			
Belarus					0.56	0.63
Belgium					0.59	0.61
Bosnia and H.			0.61			
Bulgaria	0.54	0.57			0.63	0.68
Canada	0.40	0.50	0.53			
Chile	0.56	0.59	0.60	0.64		
China			0.68	0.74		
Croatia					0.61	
Czech Rep.	0.46	0.50			0.60	0.61
Denmark	0.44	0.52			0.52	0.54
Estonia					0.57	0.61
Finland	0.38	0.49			0.54	0.53
France					0.60	0.65
Germany	0.43	0.53			0.50	0.59
Greece					0.59	0.68
Hungary					0.63	0.65
Iceland					0.52	
India			0.68	0.72		
Ireland	0.44	0.54			0.54	0.58
Israel	0.49	0.54				
Italy					0.62	
Japan	0.37	0.45	0.52	0.62		
Korea			0.59	0.63		
Kyrgyz Rep.			0.67			
Latvia	0.46	0.51			0.65	0.64
Lithuania					0.61	0.62
Luxembourg					0.58	0.62
Malta					0.62	0.64
Mexico	0.59	0.57	0.65	0.65		
Moldova			0.64	0.59		
Netherlands	0.41	0.43			0.48	0.51
New Zealand	0.37	0.48				
Norway	0.38	0.47				
Peru			0.64	0.62		
Philippines	0.52	0.56	0.72			
Poland					0.69	0.60
Portugal	0.65	0.60			0.61	0.67
Romania					0.69	0.65
Russia	0.51	0.56			0.61	0.67
Serbia			0.63	0.58		
Singapore			0.63			
Slovakia					0.61	0.60
Slovenia	0.54	0.56			0.62	0.65
South Africa			0.61	0.67		
Spain	0.53	0.56	0.53	0.59	0.55	0.63
Sweden	0.41	0.46			0.57	
Switzerland	0.42	0.52				
Tanzania			0.65			
Turkey					0.69	
Uganda			0.62			
UK	0.42	0.50			0.49	
Ukraine					0.62	0.71
U.S.	0.39	0.51	0.49	0.53		
Vietnam			0.67	0.70		
Zimbabwe			0.63			
Correlation	r	0.71***	r	0.73**	r	0.64***

The ISSP, the WVS and the EVS – conducted in 2000 – are used for measuring acquiescence. For each dataset, we selected all questions asking for agreement or disagreement on a four or five point scale. All agreeing answers (agreed or strongly agreed) were summed up for each respondent and divided by the total number of considered items.

acquiescence =  $\frac{\sum(\text{strongly agree} \cap \text{agree})}{\sum(\text{items asking for agreement})}$

Hence, the coefficient of acquiescence ranges from 0 and 1 for every respondent. The numbers in the table show the acquiescence mean for each country and dataset.

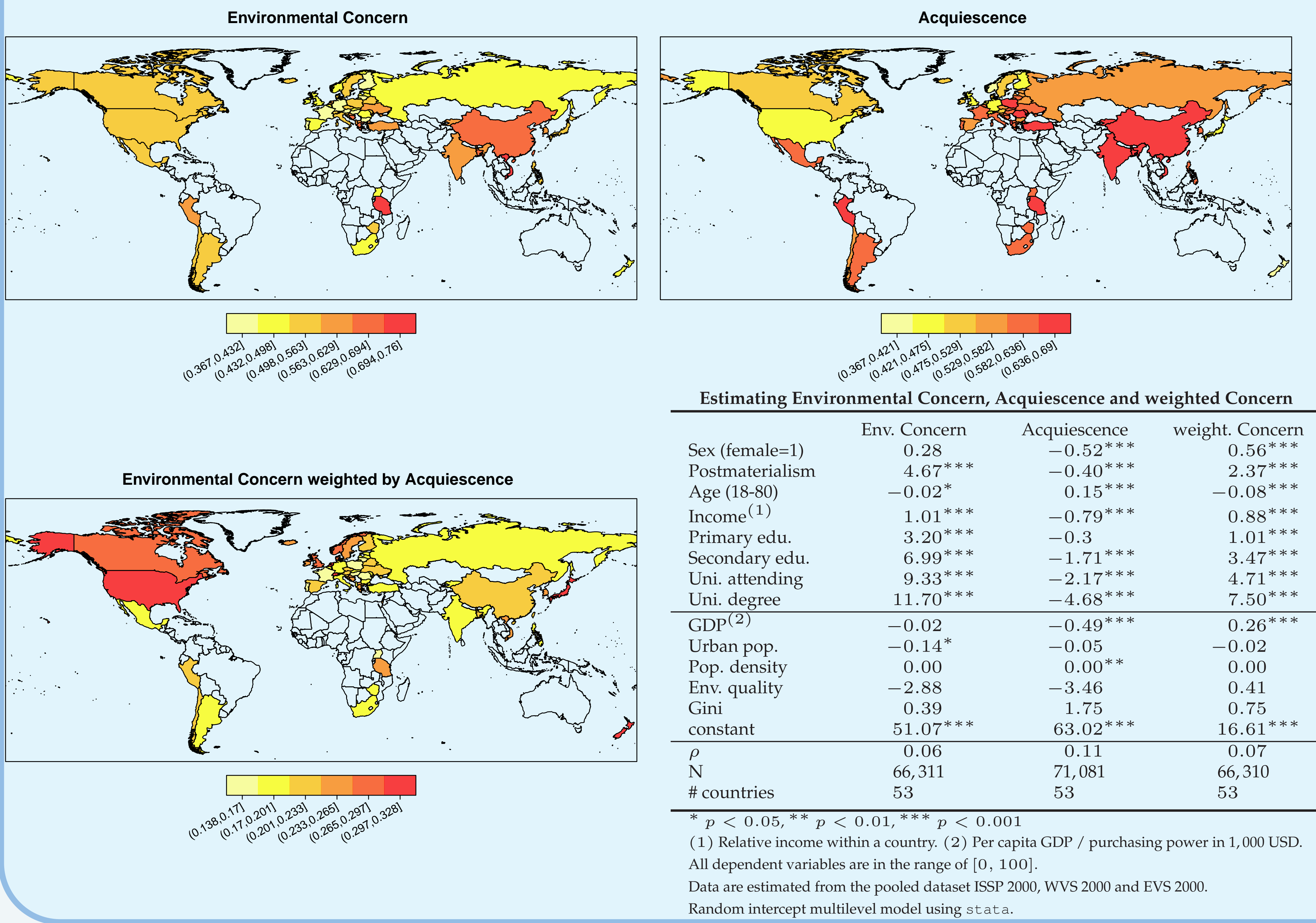
- ISSP 2000: 28 items, average acquiescence: 0.46
- WVS 2000: 21 items, average acquiescence: 0.62
- EVS 2000: 38 items, average acquiescence: 0.59

To test whether acquiescence is biasing the results of international surveys, we weight each individual’s environmental concern by the respondent’s acquiescence and compare the results with and without weighting.

An average respondent from Switzerland for example has an *acquiescence value* of 0.42 (shown left) and an index value for *environmental concern* of 0.52 (not shown in the table). As a weighting factor for acquiescence we apply the reversed acquiescence (1 – 0.42 = 0.58). We obtain the *weighted environmental concern* in multiplying the observed environmental concern and the reversed acquiescence (0.52 \* 0.58 = 0.3) .

The reliability of acquiescence is tested by comparing the values of the year 2000 with other waves of the ISSP, WVS and EVS. The means per country are strongly correlated indicating a robust measure over time (shown left).

Results



Information