Online Appendix 1: Wilson-Patterson Attitude Inventory

Below is the complete Wilson-Patterson (1968) attitudes battery used in the current analyses. Several items have no political content while others did not fit into the three primary attitudinal dimensions that were of primary interest for the current analyses.

Instructions:
Here is a list of various topics. Please indicate whether or not you agree with each topic by circling Yes or No as appropriate. If you are uncertian, please circle ?. Again, the best answer is usually the one which comes to mind first, so just give us your first reaction and don't spend too long on any one topic.

1. Death Penalty ..... Yes ? No
2. Astrology ..... Yes ? No
3. X-rated movies..... Yes ? No
4. Modern art ..... Yes ? No
5. Women's liberation ..... Yes ? No
6. Foreign aid ..... Yes ? No
7. Federal Housing ..... Yes ? No
8. Democrats ..... Yes ? No
9. Military drill..... Yes ? No
10. The draft..... Yes ? No
11. Abortion..... Yes ? No
12. Property tax..... Yes ? No
13. Gay rights..... Yes ? No
14. Liberals ..... Yes ? No
15. Immigration……..... Yes ? No
16. Capitalism ……..... Yes ? No
17. Segregation ……..... Yes ? No
18. Moral Majority .....….. Yes ? No
19. Pacifism ..... Yes ? No
20. Censorship ..... Yes ? No
21. Nuclear power ..... Yes ? No
22. Living together ..... Yes ? No
23. Republicans ..... Yes ? No
24. Divorce ..... Yes ? No
25. School prayer ..... Yes ? No
26. Unions ..... Yes ? No
27. Socialism ..... Yes ? No
28. Busing ..... Yes ? No

On Line Appendix 2: *Confirmatory Factor Analysis*

In Table A1, we present the model fit indices for two structural equation models. To estimate the models, we rely on responses from 2,665 pairs of monozygotic (MZ) twins and 3,083 pairs of dizygotic (DZ) twins along with several other family members (i.e. siblings, parents, spouses) comprising 29,682 respondents from the Virginia 30,000 health and lifestyles questionnaire. For the initial CFA model, we include all possible respondents who provided responses to more than 80 percent of the 65 items of interest. In the model in the left column of Table A1, we imputed missing values for respondents leaving a total of 28,877 respondents for analysis. Responses were grouped by sex. As model fit indexes for models with missing data have not yet been developed and validated, we re-estimated the model with case-wise deletion of missing responses. The CFA results for the two models were generally equal to the third decimal place. Thus, to compensate for the impoverished nature of missing data models, the right column of Table A1 provides the model fit indexes for the model where missing values were not imputed, leaving 22101 respondents after case-wise deletion. The fact that the models are virtually identical with the exception of the imputed missing values, gives us confidence that the models are highly comparable. As can be seen the Root Mean Squared Error of Approximation (RMSEA) of 0.045 suggests that our model accurately captures the intricacies of the data despite the fact that the model is very complex. The Tucker Lewis Index (TLI = .910) and the Comparative Fit Index (CFI = .869) suggest a somewhat worse fit; however this is expected due to the complexity of the model. The TLI and CFI statistics tend to be (unnecessarily) smaller for more complicated multiple factor models, as the models weight the difference in χ^2 by the degrees of freedom in the model. Importantly, the RMSEA appears to be more appropriate in confirmatory models such as estimated here, while the CFI and TLI appear to be more appropriate in exploratory models

(Rigdon 1996).The motivation for using the multiple imputation model is the extreme drop in the number of responses for the case-wise deletion model based on the large number of response that served as indicators of the personality traits and ideological dimensions. More specifically, in the second model there are 6776 less respondents. As the factor loadings are trivially different, it is highly unlikely that any bias is induced into the model by including the missing respondents.

[Insert Table A1 Here]

The CFA model that was estimated consisted of seven factors: four personality factors and three political ideology factors. The four estimated personality factors closely parallel those derived by Hans Eysenck (1954). The three political ideology factors conform to expectations about social, economic and foreign policy dimensions of American political ideology (Conover and Feldman 1981, 1984). All seven of the factors were estimated simultaneously to increase the efficiency of the estimates. The results do not change substantively when estimated independently.

We present the standardized factor loadings for the confirmatory factor analysis of the Eysenck personality questionnaire in Table A2. Items that did not capture the essence of the personality trait were excluded from the analysis a priori (only 9 items fell into this category). As can be seen by the standardized factor loadings in Table A2, the four personality trait suggested by Eysenck are clear.

[Insert Table A2 Here]

The neuroticism trait appears to be essentially what every emotional stability trait would suggest. The trait is identified by high levels of emotionality and emotional variability, with the specific emotions being anxiety and anger. Overall the factor loadings are very strong. Also, the extraversion trait is almost exactly what one would expect with very high standardized factor

loadings. Therefore, these two factors, which are common components of most personality theories, emerge as very strong factors in our CFA.

The *P* items, which are more directly relevant, also form a fairly reliable scale. Although the factor loadings are not as high as the factor loadings for Neuroticism or Extraversion the first three items still load quite strongly. Thus, it appears that *P*, as defined by the items in the scale, is a mixture of deference to authority and the rules and a desire for respect from others. In short, based on these items, those scoring high on *P* would be expected to also score high on authoritarianism and low on openness to experience. These individual components of these factors have been tied to conservatism in various ways by prior studies (Verhulst et al 2010).

The social desirability scale is a very interesting scale, and a unique component of the Eysenck measure. As can be seen by the items in this factor, the Social Desirability scale focuses on issues that people may be motivated to lie about, but in reality are applicable to everyone. Everyone has undesirable qualities, occasionally talks behind other people's backs and borrows things from other people without telling them. Again, the factor loadings are quite high suggesting a good fit with the data.

Turning to the dimensions of political ideology, we present the standardized factor loadings for the three ideological dimensions in Table A3. The Military Attitudes dimension is identified by high loadings for "The Draft" and "Military Drill" for both men and women. As both of these constructs are inextricably tied to the military, this label seems obvious. Two other items load on this factor: "Nuclear Power" and the "Death Penalty." Keeping in mind the fact that the data is from the 1980s, nuclear power was likely not interpreted as Nuclear Power Plants and Nuclear Energy, but more likely as Nuclear Weapons. As such there is an implied militaristic component to this item. The standardized loading for this item appears to be different for Males and Females,

suggesting for men, the death penalty is tied to defense or punishment, which is related to military force.

[Insert Table A3 Here]

The social ideology dimension has very strong loadings for a wide variety of items that tend to be categorized under the social dimension of ideology. It is interesting to note the stronger loadings for females on "Women's Rights" and "Abortion," two issues typically associated with the Women's movement, and attitudes toward Living Together, which also disproportionately affects women. In any event, the loadings are very high for both males and females.

The factor loadings for economic attitudes are also reasonably strong. The high importance of immigration is expected as immigration was a major economic and political issue during the time of the survey.

In sum, we find strong evidence for all four of the major personality dimensions outlined by Eysenck and the political attitudes that play a prominent role in the political science literature. The factor loadings are slightly stronger for neuroticism and extraversion and social desirability than for the P-scale regarding personality traits, the factor loadings for the ideological dimensions are quite clear. The political ideology factors have reasonably high standardized factor loadings again suggesting strong underlying traits. As such, we are confident that have reliable measures of all the dimensions.

On Line Appendix 3: *Univariate Model Fitting Results*

The univariate model fitting results for the personality traits are depicted in Table A4 and for the ideological dimensions are depicted in Table A5, estimated in OpenMx using Full Information Maximum Likelihood (Boker et al. 2010). For each personality trait and ideological dimension several models were estimated. The best fitting model is the most parsimonious model that explains the data. As a baseline we estimate the saturated (full) ACE model where the variance components are allowed to differ across the sexes. This model has more free parameters than the other models, and thus, is the least parsimonious model. Each subsequent reduced model, adds a specific constraint, and is then tested against the baseline model using a simple likelihood ratio test. If the test is significant, we conclude that the full ACE model explains the data better than the more parsimonious model, and is therefore preferable. In other words, the inclusion of additional parameters explains a significant amount of variance and thus is a better model (even if less parsimonious). If the reduced model is not significantly different from the saturated model, we conclude the reduced model fits the data better: the significance of each reduced model corresponds with the statistical significance of the excluded parameter. As is evident in the tables, *P*, neuroticism, extraversion and military attitudes are best explained by an AE model where the common environmental parameter is removed from the model. Alternatively, social desirability, social ideology and economic ideology are characterized by an ACE model, where all three variance components account for a significant portion of the variance in the given trait.

[Insert Table A4 Here]

[Insert Table A5 Here]

Table A1: Tests of Model Fit

	Missing Values Imputed	Missing Values Not Imputed
Degrees of Freedom	1682	1630
Number of Free Parameters	304	304
CFI	–	0.869
TLI	–	0.910
RMSEA	–	0.043
N (Male)	11641	9270
N (Female)	17236	12831

Table A2: Confirmatory Factor Analysis for Eysenck Personality Traits

	Neuroticism		The P-scale		Extraversion		Social Desirability	
	Female	Male	Female	Male	Female	Male	Female	Male
Are you a worrier?	0.748	0.754						
Does your mood often go up and down?	0.756	0.711						
Do you often feel 'fed-up'?	0.722	0.692						
Are you an irritable person?	0.709	0.622						
Do you often feel lonely?	0.669	0.713						
Do you ever feel 'just miserable' for no reason?	0.677	0.703						
Are your feelings easily hurt?	0.606	0.598						
Do you suffer from 'nerves'?	0.621	0.711						
Would you call yourself a nervous person?	0.627	0.677						
Are you often troubled about feelings of guilt?	0.640	0.683						
Would you call yourself tense or 'high-strung'?	0.589	0.629						
Would you take drugs which may have strange or dangerous effects?			0.702	0.751				
Do you prefer to go your own way rather than act by the rules?			0.647	0.605				
Would you like other people to be afraid of you?			0.633	0.611				
Do you enjoy co-operating with others?			0.485	0.501				
Do good manners and cleanliness matter much to you?			0.428	0.426				
Do you stop to think things over before doing anything?			0.330	0.450				
Is it better to follow society's rules than go your own way?			0.262	0.377				
Do you try not to be rude to people?			0.205	0.191				
Do you think people spend too much time safeguarding their future with savings and insurances?			0.165	0.161				
Do other people think of you as being very lively?					0.799	0.816		
Can you easily put some life into a rather dull party?					0.791	0.776		
Can you get a party going?					0.762	0.797		
Are you mostly quiet when you are with other people?					0.761	0.724		
Do you like mixing with people?					0.752	0.754		
Can you usually let yourself go and enjoy yourself at a lively party?					0.737	0.757		
Do you usually take the initiative in making new friends?					0.697	0.72		
Are you rather lively?					0.694	0.69		
Do you enjoy meeting new people?					0.631	0.647		
Are you a talkative person?					0.635	0.647		
Do you like plenty of bustle and excitement around you?					0.579	0.596		
Would you call yourself happy-go-lucky?					0.513	0.501		
Do you often take on more activities than you have time for?					0.256	0.237		
Have you ever taken advantage of someone?							0.767	0.783
Have you ever said anything bad or nasty about anyone?							0.740	0.713
Have you ever taken anything that belonged to someone else?							0.674	0.690
Were you every greedy by helping yourself to more than your share?							0.660	0.672
Have you ever cheated at a game?							0.627	0.699
Have you ever blamed someone for what was really your fault?							0.627	0.625
Are all your habits good and desirable ones?							0.572	0.548
Have you ever broken or lost something belonging to someone else?							0.569	0.599
Do you always practice what you preach?							0.558	0.528
As a child, were you ever 'fresh' towards your parents?							0.495	0.530
If you say you will do something, do you always keep your promise?							0.460	0.489
Do you sometimes put off until tomorrow what you ought to do today?							0.338	0.394

Table A3: Standardized Factor Loadings for the Dimensions of Political Ideology

	Military Attitudes		Social Attitudes		Economic Attitudes	
	Female	Male	Female	Male	Female	Male
The Draft	0.799	0.802				
Military Drill	0.735	0.777				
Nuclear Power	0.425	0.518				
Death Penalty	0.339	0.568				
Gay Rights			0.828	0.897		
Liberals			0.762	0.707		
Living Together			0.712	0.597		
Women's Rights			0.683	0.631		
Abortion			0.650	0.550		
School Prayer			0.622	0.611		
Moral Majority			0.402	0.402		
Censorship			0.328	0.398		
Immigration					0.689	0.682
Foreign Aid					0.588	0.600
Capitalism					0.564	0.683
Property Tax					0.473	0.563
Federal Housing					0.520	0.467

Table A4: Univariate Variance Components Model-Fitting Results for Personality Traits

		Male			Female						
		a^2	c^2	e^2	a^2	c^2	e^2	-2LL	Chi Square	df	p
The P-scale	ACE	0.379 (0.21, 0.52)	0.094 (0.00, 0.24)	0.527 (0.48, 0.58)	0.395 (0.28, 0.51)	0.102 (0.00, 0.20)	0.503 (0.47, 0.54)	13569.20			
	ACE (M=F)	0.394 (0.30, 0.49)	0.098 (0.01, 0.18)	0.508 (0.48, 0.54)	0.394 (0.30, 0.49)	0.098 (0.01, 0.18)	0.508 (0.48, 0.54)	13600.46	31.267	3	0.000
	AE	**0.482 (0.43, 0.53)**		**0.518 (0.47, 0.57)**	**0.505 (0.47, 0.54)**		**0.495 (0.46, 0.53)**	**13574.16**	**4.965**	**2**	**0.084**
	CE		0.390 (0.34, 0.43)	0.610 (0.57, 0.66)		0.416 (0.39, 0.45)	0.584 (0.55, 0.61)	13635.32	66.121	2	0.000
Extraversion	ACE	0.455 (0.35, 0.50)	0.000 (0.00, 0.09)	0.545 (0.50, 0.60)	0.512 (0.48, 0.54)	0.000 (0.00, 0.02)	0.488 (0.46, 0.52)	19380.90			
	ACE (M=F)	0.497 (0.47, 0.52)	0.000 (0.00, 0.00)	0.503 (0.48, 0.53)	0.497 (0.47, 0.52)	0.000 (0.00, 0.00)	0.503 (0.48, 0.53)	19518.41	137.503	3	0.000
	AE	**0.455 (0.40, 0.50)**		**0.545 (0.50, 0.56)**	**0.455 (0.40, 0.50)**		**0.488 (0.46, 0.52)**	**19380.90**	**0.000**	**2**	**1.000**
	CE		0.345 (0.30, 0.39)	0.655 (0.61, 0.70)		0.373 (0.34, 0.40)	0.627 (0.60, 0.66)	19569.86	188.952	2	0.000
Neuroticism	ACE	0.377 (0.22, 0.43)	0.000 (0.00, 0.133)	0.623 (0.57, 0.68)	0.366 (0.25, 0.48)	0.008 (0.00, 0.19)	0.550 (0.52, 0.59)	23760.12			
	ACE (M=F)	0.399 (0.30, 0.46)	0.032 (0.00, 0.12)	0.569 (0.54, 0.60)	0.399 (0.30, 0.46)	0.032 (0.00, 0.12)	0.569 (0.54, 0.60)	24072.41	312.288	3	0.000
	AE	**0.377 (0.32, 0.43)**		**0.623 (0.57, 0.68)**	**0.458 (0.42, 0.49)**		**0.542 (0.51, 0.58)**	**23762.57**	**2.444**	**2**	**0.295**
	CE		0.290 (0.24, 0.33)	0.710 (0.66, 0.76)		0.372 (0.34, 0.40)	0.628 (0.60, 0.66)	23815.32	55.193	2	0.000
Social Desirability	**ACE**	**0.265 (0.09, 0.44)**	**0.200 (0.04, 0.35)**	**0.535 (0.49, 0.59)**	**0.401 (0.29, 0.51)**	**0.140 (0.04, 0.24)**	**0.459 (0.43, 0.49)**	**10903.02**			
	ACE (M=F)	0.357 (0.26, 0.45)	0.162 (0.08, 0.25)	0.481 (0.46, 0.51)	0.357 (0.26, 0.45)	0.162 (0.08, 0.25)	0.481 (0.46, 0.51)	11104.86	201.832	3	0.000
	AE	0.481 (0.43, 0.53)		0.519 (0.47, 0.57)	0.550 (0.52, 0.58)		0.450 (0.42, 0.48)	10915.95	12.924	2	0.002
	CE		0.413 (0.37, 0.45)	0.587 (0.55, 0.63)		0.465 (0.44, 0.49)	0.536 (0.51, 0.56)	10967.76	64.740	2	0.000

Note: Best models are in bold

Table A5: Univariate Variance Components Model-Fitting Results for the Ideological Dimensions

		Male			Female						
		a^2	c^2	e^2	a^2	c^2	e^2	-2LL	Chi Square	df	p
Social	**ACE**	**0.352 (0.21, 0.50)**	**0.232 (0.10, 0.36)**	**0.417 (0.38, 0.46)**	**0.320 (0.24, 0.41)**	**0.363 (0.28, 0.44)**	**0.317 (0.30, 0.34)**	**15770.52**			
	ACE (M=F)	0.338 (0.26, 0.41)	0.315 (0.25, 0.38)	0.347 (0.33, 0.37)	0.338 (0.26, 0.41)	0.315 (0.25, 0.38)	0.347 (0.33, 0.37)	15797.42	26.902	3	0.000
	AE	0.599 (0.56, 0.64)		0.402 (0.36, 0.44)	0.693 (0.67, 0.71)		0.307 (0.29, 0.33)	15841.60	71.078	2	0.000
	CE		0.506 (0.47, 0.54)	0.494 (0.46, 0.53)		0.620 (0.60, 0.64)	0.380 (0.36, 0.40)	15857.75	87.226	2	0.000
Economic	**ACE**	**0.322 (0.17, 0.48)**	**0.228 (0.09, 0.36)**	**0.450 (0.41, 0.50)**	**0.401 (0.30, 0.51)**	**0.167 (0.07, 0.26)**	**0.432 (0.40, 0.46)**	**16237.46**			
	ACE (M=F)	0.377 (0.29, 0.47)	0.197 (0.12, 0.27)	0.426 (0.40, 0.45)	0.377 (0.29, 0.47)	0.197 (0.12, 0.27)	0.426 (0.40, 0.45)	16895.02	657.560	3	0.000
	AE	0.566 (0.52, 0.61)		0.434 (0.39, 0.48)	0.579 (0.55, 0.61)		0.421 (0.39, 0.45)	16257.40	19.949	2	0.000
	CE		0.481 (0.44, 0.52)	0.519 (0.48, 0.56)		0.486 (0.46, 0.51)	0.514 (0.49, 0.54)	16314.30	76.843	2	0.000
Military	ACE	0.443 (0.27, 0.52)	0.031 (0.00, 0.18)	0.526 (0.48, 0.58)	0.302 (0.18, 0.42)	0.082 (0.00, 0.19)	0.616 (0.58, 0.65)	23320.60			
	ACE (M=F)	0.423 (0.32, 0.50)	0.045 (0.00, 0.14)	0.532 (0.50, 0.56)	0.423 (0.32, 0.50)	0.045 (0.00, 0.14)	0.532 (0.50, 0.56)	25666.35	2345.750	3	0.000
	AE	**0.477 (0.43, 0.52)**		**0.523 (0.48, 0.57)**	**0.393 (0.36, 0.43)**		**0.607 (0.57, 0.64)**	**23322.81**	**2.207**	**2**	**0.332**
	CE		0.380 (0.34, 0.42)	0.620 (0.58, 0.67)		0.324 (0.29, 0.36)	0.676 (0.65, 0.71)	23368.06	47.456	2	0.000

Best models are in bold