

Genetic factors and preferences for redistribution and collective behavior.

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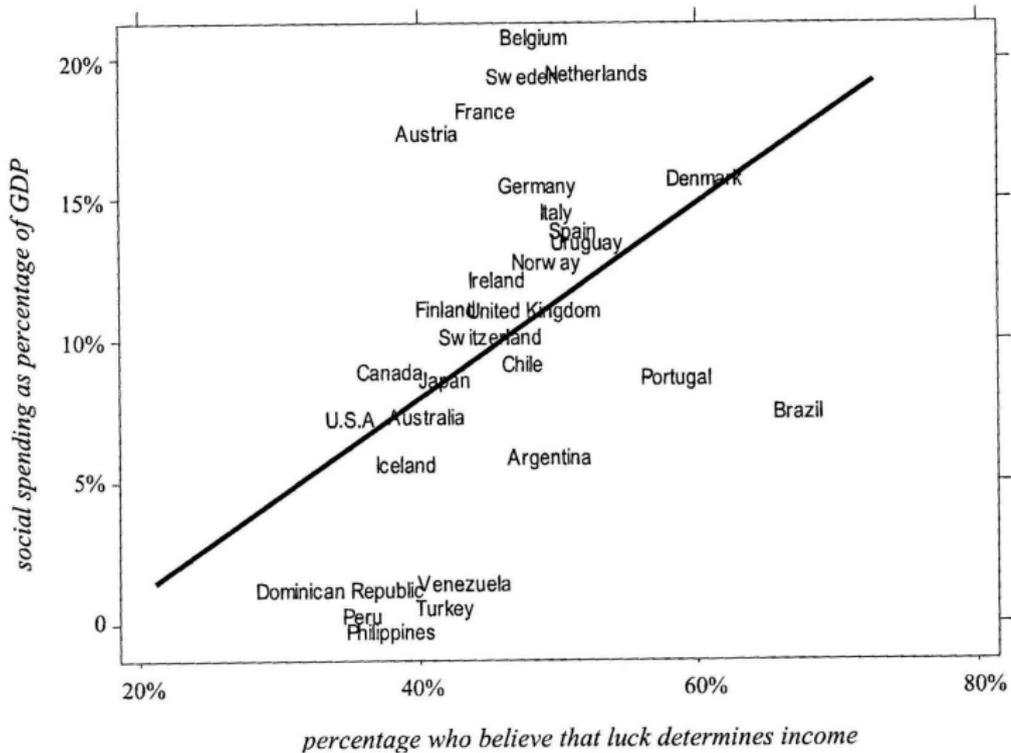
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- There is a large discrepancy in the magnitude of social spending across countries.
- Some of it can be traced to differences in individual preferences with respect to redistribution.
- Such preferences are, to a degree, rooted in culture.
- Is there also a genetic component that affects individual preferences for redistribution?

Alesina, Glaeser, and Sacerdote (2000).

- Social spending correlates positively with belief that luck causes income (WVS question “In the long run, hard work usually brings a better life” vs. “Hard work doesn’t generally bring success - it’s more a matter of luck and connections.”)
- Social spending correlates negatively with ethnic fractionalization.

Alesina and Angeletos (2003): Fraction of population above 65 is also important.



Guiso, Sapienza, and Zingales (2005):

- Religion and ethnic origins affect the individual preference for redistribution.
- At the same time, preferences for redistribution affect the size of a state's budget relative to gross state product.

Benabou and Tirole (2006): a formal argument at how several self-sustaining equilibria are possible:

- One with a high tax rate that causes people to believe that effort does not pay off, and set a high tax rate in accordance with their beliefs.
- One with a low tax rate that causes people to believe that effort does pay off, and set a low tax rate in accordance with their beliefs.

What else? Alexina and Guiliano (2009):

- An individual history of misfortune.
- Different cultures.
- Indoctrination in a totalitarian society.
- Different family structures.
- It matters whether the income is perceived as having been obtained through effort or through luck.

Dependent variables

- ① Left-right self-identification (V95).
- ② Index of preference for redistribution.
 - ① V96. Incomes should be made more equal vs. we need larger differences
 - ② V97. Private ownership of business and industry should be increased vs. govt. ownership should be increased.
 - ③ V98. Government should take more responsibility to ensure that everyone is provided for vs. People should take more responsibility.
 - ④ V99. Competition is good vs. competition is harmful.
 - ⑤ V100. In the long run, hard work usually brings a better life vs. It's a matter of luck and connections.
 - ⑥ V101. People can only get rich at the expense of others vs. Wealth can grow so there's enough for everyone.
 - ⑦ V131. Democracy: Governments tax the rich and subsidize the poor. (Conditional on V140 - Democracy is important).
 - ⑧ V133. Democracy: People receive state aid for unemployment.
 - ⑨ V137. Democracy: The state makes people's incomes equal.

Dependent variable: preference for redistribution index.

	Coef	t
Education	-.050	-24.60
Income	-.044	-24.52
Gender (1-Male, 2-Female)	.136	17.20
Age	-.002	-8.90
Size of town (1-small, 9-large)	-.012	-6.60
Orthodox	.0445	2.41
Catholic	-.058	-4.39
Muslem	-.034	-1.70
Protestant	-.161	-10.18
Country dummies	Yes	
R^2	0.108	
N	77916	

What is the evidence that social behavior is influenced by genetics?

Some terminology

- Gene
- Allele

Twin studies: Monozygotic vs. dizygotic twins.

- Alford, Funk, and Hibbing (2005). Some political attitudes are genetically transmitted.
- Fowler, Baker and Dawes (2008). Voter turnout has high heritability.
- Cesarini et. al. (2008). Same for behavior in trust games.
- Settle, Dawes, Fowler (2009). Inheritance affects the strength of a respondent's partisan attachment, but not its direction.
- Hatemi et. al. (2007). Genes have some small effect on voter preference.
- Hatemi et. al. (2009). Little influence on party ID, but on the strength of party identification.
- Hatemi et. al. (2010). Non-twin siblings.

Hatemi et. al. (2011). There are several chromosome regions that can be linked to liberal-conservative preferences.

Specific genetic markers and political/economic behavior.

- Dawes and Fowler (2009). Partisanship attachment linked to D2 dopamine receptor gene.
- Settle, Dawes, Christakis, Fowler (2010). Political ideology is linked to an allele of D4 dopamine receptor gene. The gene's effect is mediated by socialization in adolescence and is small.
- Dawes and Fowler (2008): Two genes — 5HTT and MAOA — predict voter turnout; genetic factors are mediated by social environment.

- Chiao and Blizinsky (2009). Frequency of the short 5HTT allele is correlated with collectivism-individualism on country level.
- Way and Lieberman (2010). Frequency of certain alleles of 5HTT, MAOA and A118G is correlated with collectivism-individualism on country level.

Why there may be a link between certain genes and social behavior?

- The S allele of 5-HTTLPR regulates is associated with increased anxiety, harm avoidance, negative emotions, attentional bias to negative information, risk of depression.
- The L allele

What are the problems of using genetics in social science research?

Charney and English (2012):

- Genetic drift, founder events, and population bottlenecks. One must control for ethnicity, and the effects may be different across subgroups.
- Concurrent evolution.
- Certain alleles may be inherited together.
- Phenotype specification.
- Independence of cases and controls.