

Outcome Attribution, Demand for Redistribution, & the Genetic Lottery

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Motivation

- ▶ Demand for redistribution may be a function of outcome attribution
 - ▶ Traditionally, there have been certain “controllable” things that can be redistributed (money) while “uncontrollable” things (genes) cannot be changed
- ▶ Most people have elements of meritocratic preferences in their views on fairness & redistribution
 - ▶ Effort-driven inequality is just; luck-driven inequality is unjust
- ▶ Advances in technology are moving genes toward the “controllable” realm
 - ▶ If genes are “controllable”, how should we treat those who are victims of the genetic lottery?

Research Question

- ▶ Do people who are in favor of redistribution also tend to be in favor of using gene sequencing and/or gene editing technology?
- ▶ Does providing information about the effects of genes on outcomes and inequality change their views on the role of genes in determining outcomes and the permissibility of gene sequencing and/or gene editing?

Main Results

- ▶ Replicated previous results on demand for redistribution and luck vs. effort beliefs
- ▶ Republicans respond negatively to both treatments
- ▶ Women are more opposed to gene sequencing / gene editing than men

What is distributive justice?

There are three main views:

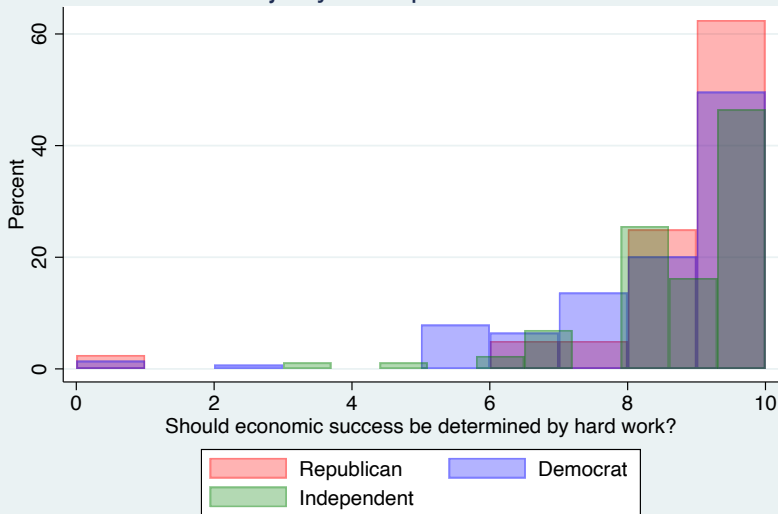
- ▶ **Egalitarian:** Redistribute to get rid of all inequalities, no matter their source
- ▶ **Libertarian:** Never redistribute; any attempt to get rid of inequality is unjust
- ▶ **Meritocratic:** Effort driven inequality is just; luck driven inequality is unjust & should be redistributed.

Experimental Design

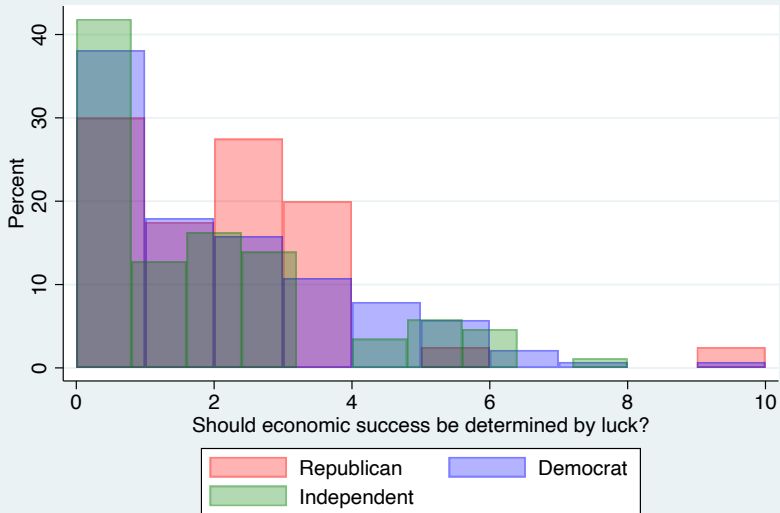
Treatment Groups

- ▶ Control - no information provided
- ▶ Genes Matter - information from Kweon et al (2020) suggesting that genes have a significant influence on social inequalities
- ▶ Environment Matters - information from Kweon et al (2020) suggesting that many social outcomes are within one's control

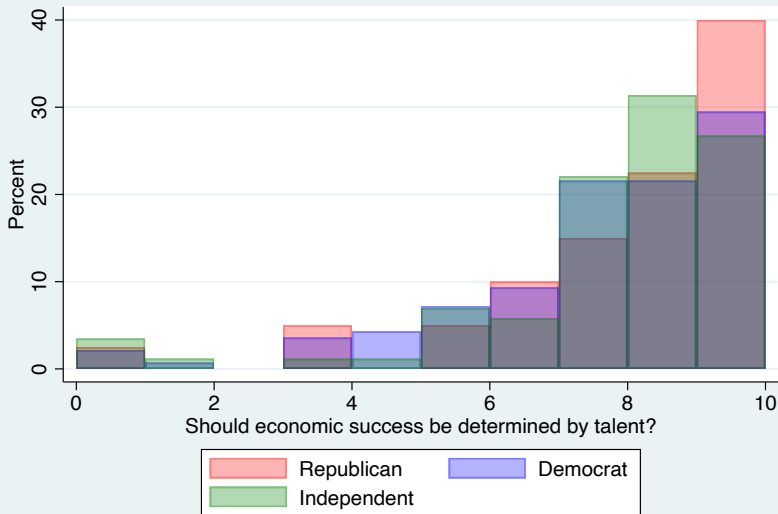
The vast majority of respondents are meritocrats



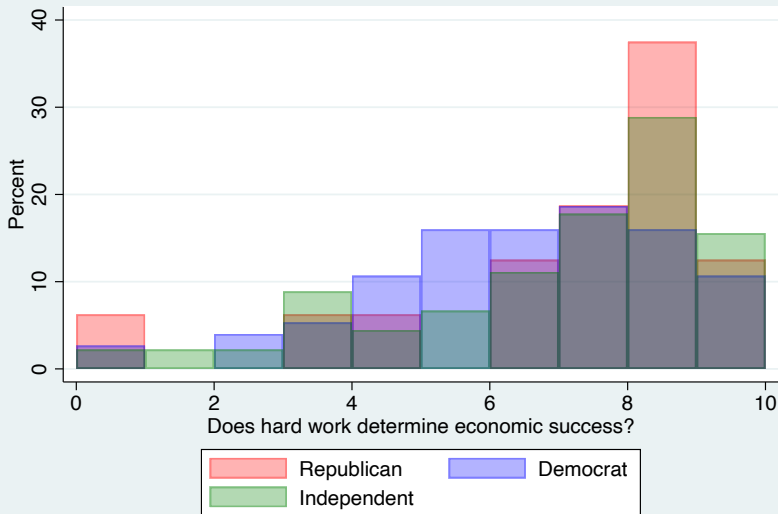
Luck should not determine economic success



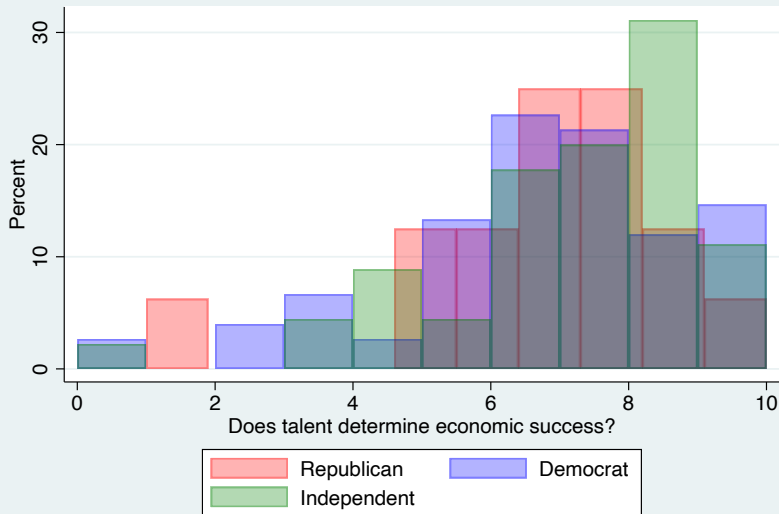
Talent should determine economic success



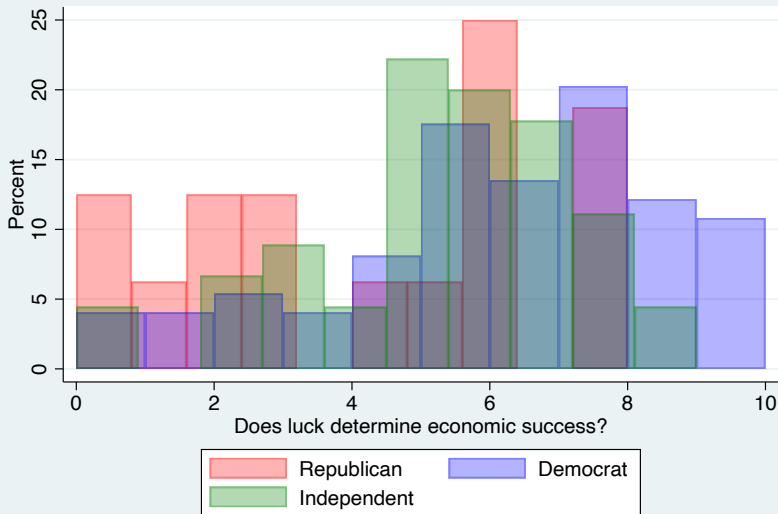
Does hard work determine economic success?



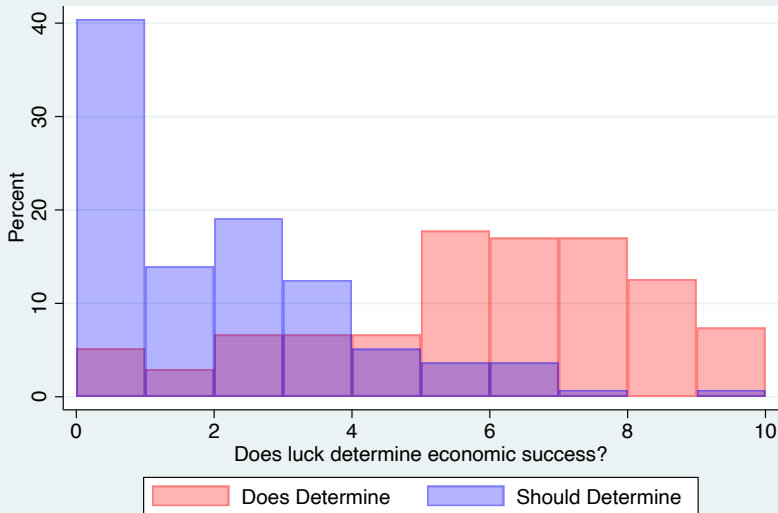
Does talent determine economic success?



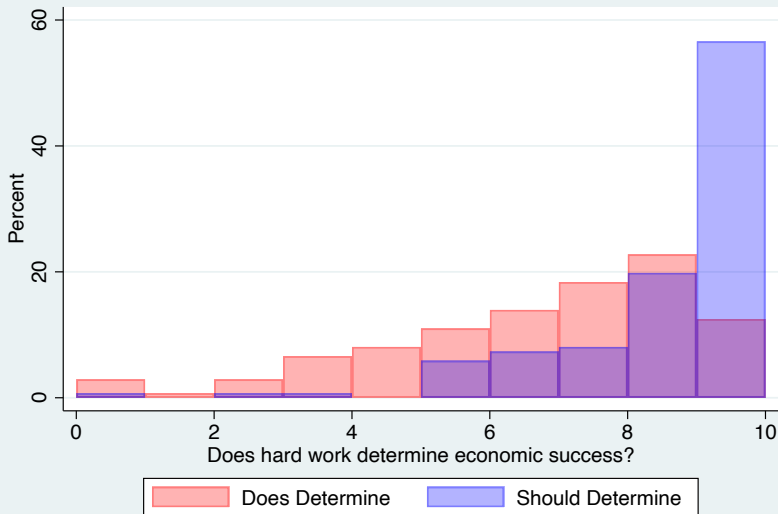
Does luck determine economic success?



Does luck determine economic success?



Does hard work determine economic success?



Correlations

	Redistribution in General	Spread Wealth Evenly	To Reward Hard Work
luckdeterminessuccess	0.267*** (0.0912)	0.0561 (0.110)	0.0356 (0.104)
workdeterminessuccess	-0.137 (0.124)	-0.578*** (0.141)	0.331** (0.152)
talentdeterminessuccess	-0.0300 (0.149)	0.315* (0.162)	0.0121 (0.164)
democrat	0 (.)	0 (.)	0 (.)
independent	-1.688*** (0.458)	-1.933*** (0.522)	0.203 (0.506)
republican	-2.984*** (0.755)	-3.639*** (0.718)	-1.387 (0.890)
female	0.161 (0.431)	0.722 (0.462)	-0.813* (0.464)
Constant	5.446*** (1.091)	6.568*** (1.152)	4.965*** (1.123)
Observations	135	135	135

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Correlations

Correlation between views on gene sequencing / gene editing and demand for redistribution

	Baby Disorders	Baby Attributes	For Disabilities	For Any Reason
sequencing/editing	0.0811 (0.0780)	0.00992 (0.0716)	0.159* (0.0900)	0.0237 (0.0748)
democrat	0 (.)	0 (.)	0 (.)	0 (.)
independent	-1.928*** (0.483)	-1.890*** (0.489)	-1.929*** (0.469)	-1.868*** (0.495)
republican	-3.565*** (0.701)	-3.565*** (0.708)	-3.586*** (0.690)	-3.557*** (0.704)
female	0.163 (0.456)	0.0541 (0.463)	0.300 (0.459)	0.0772 (0.465)
Constant	5.411*** (0.769)	6.014*** (0.540)	4.754*** (0.876)	5.913*** (0.644)
Observations	136	136	136	136

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Gender Differences

Should gene sequencing / gene editing be allowed for the following?

	Baby disorders	Baby physical attributes	For disability	For any reason
female	-1.521** (0.582)	-1.229* (0.655)	-1.483** (0.616)	-1.115* (0.671)
Constant	8.078*** (1.013)	3.529*** (1.224)	8.797*** (0.960)	3.952*** (1.249)
Political Party	Yes	Yes	Yes	Yes
Race/Ethnicity	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes
Income	Yes	Yes	Yes	Yes
r ²	0.244	0.227	0.244	0.201

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Gender Differences

	Baby disorders	Baby physical attributes	For disability	For any reason
female=0 × democrat	0 (.)	0 (.)	0 (.)	0 (.)
female=0 × independent	0.261 (0.848)	-0.244 (1.118)	1.293 (0.862)	0.0526 (1.170)
female=0 × republican	0.241 (1.004)	0.764 (1.488)	1.945* (0.988)	0.502 (1.595)
female=1 × democrat	-1.303 (0.832)	-0.996 (0.925)	-0.521 (0.867)	-0.477 (0.976)
female=1 × independent	-1.084 (0.934)	-1.608 (1.016)	-0.950 (1.078)	-1.765 (1.095)
female=1 × republican	-3.669 (2.927)	-1.477 (1.522)	-2.777** (1.301)	-1.812 (1.285)
Constant	8.096*** (1.095)	3.430** (1.352)	8.313*** (1.067)	3.558** (1.387)
Race/Ethnicity	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes
Income	Yes	Yes	Yes	Yes
r ²	0.256	0.229	0.287	0.211

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Treatment Effects

Table 1: What actually determines success?

	Hard Work	Talent	Luck
environmentmatters	0.660** (0.335)	0.277 (0.275)	-0.454 (0.409)
genesmatter	0.371 (0.350)	-0.200 (0.303)	0.492 (0.347)
Constant	6.272*** (0.199)	6.485*** (0.183)	5.437*** (0.211)
r2	0.0139	0.00697	0.0178

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Treatment Effects

Table 2: To what extent can someone control their hard work/talent/luck?

	Hard Work	Talent	Luck
environmentmatters	0.00274 (0.275)	-0.370 (0.414)	-0.411 (0.302)
genesmatter	0.0979 (0.236)	-0.735** (0.364)	0.358 (0.330)
Constant	8.574*** (0.158)	4.963*** (0.235)	1.971*** (0.189)
r2	0.000623	0.0141	0.0156

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Treatment Effects

	Baby disorders	Baby physical attributes	For disability	For any reason
environmentmatters × democrat	0.354 (0.609)	-0.625 (0.647)	0.297 (0.601)	-1.155 (0.711)
environmentmatters × independent	0.284 (0.636)	0.100 (0.684)	0.666 (0.598)	-1.376* (0.760)
environmentmatters × republican	-2.470* (1.285)	-1.232 (0.779)	-3.750*** (1.239)	-1.996* (1.165)
genesmatter × democrat	0.625 (0.484)	-0.291 (0.576)	0.643 (0.519)	-1.175** (0.597)
genesmatter × independent	0.693 (0.700)	0.752 (0.898)	1.225* (0.689)	1.188 (0.862)
genesmatter × republican	-2.160** (0.910)	-1.764*** (0.599)	-1.901** (0.891)	-2.344*** (0.787)
female	-1.147*** (0.353)	-1.190*** (0.377)	-1.080*** (0.348)	-1.262*** (0.398)
Constant	7.706*** (0.407)	3.999*** (0.475)	7.810*** (0.405)	5.817*** (0.469)
Observations	264	264	264	264

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Conclusions

- ▶ Replicated previous results on demand for redistribution and luck vs. effort beliefs
- ▶ Republicans respond negatively to both treatments
- ▶ Women in both treatments are more opposed to gene sequencing / gene editing than men

Revisiting Motivation

- ▶ Now that gene editing is a reality, we are faced with new questions
- ▶ Possible connection between redistributive justice & genetic justice
- ▶ How do people respond to genes moving into the realm of the controllable?