

Online Appendix for

In Defense of Genopolitics

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The *American Political Science Review* recently published a critique of an article we published in the *Journal of Politics* in 2008. In that article we showed that variants of the genes 5HTT and MAOA were significantly associated with voter turnout in a sample of 2300 subjects from the National Longitudinal Study of Adolescent Health. Here, we address the critique first by conducting a replication study using an independent sample of 8700 subjects. These results show that the gene-environment interaction of the 5HTT gene variant with church attendance replicates, but the association with MAOA does not. We then focus on the general argument of the critique, showing that many of its characterizations of the literature in genetics and in political science are misleading or incorrect. We conclude by illustrating the ways genopolitics has already made a lasting contribution to the field of political science and by offering guidelines for future studies in genopolitics that are based on state-of-the-art recommendations from the field of behavior genetics.

This appendix contains Tables referenced in the main text.

Table S1. Association of 5HTT with Voter Turnout in a New Independent Sample

	<i>Coef</i>	<i>SE</i>	<i>p</i>
<i>Long * Attendance</i>	0.18	0.08	0.02
<i>Long 5HTT (LL,Ls)</i>	-0.34	0.16	0.03
<i>Church Attendance</i>	0.34	0.07	0.00
<i>Black</i>	0.22	0.05	0.00
<i>Hispanic</i>	-0.16	0.07	0.02
<i>Asian</i>	-0.30	0.10	0.00
<i>Native American</i>	-0.34	0.15	0.02
<i>Age</i>	0.10	0.01	0.00
<i>Male</i>	-0.11	0.04	0.01
<i>Constant</i>	-2.89	0.32	0.00
<i>AIC</i>	11708		
<i>Deviance</i>	12091		
<i>Null Deviance</i>	11688		
<i>N families</i>	8744		
<i>N individuals</i>	8744		

Ordinary logistic regression models of voter turnout (1 = voted in 2000 election) based on newly released Add Health subjects not analyzed in Fowler and Dawes (2008). In order to create an “independent” sample we randomly chose one member from each family. Cohen’s d for Long * Attendance is 0.10.

Table S2. Association of 5HTT with Voter Turnout in a Combined Independent Sample

	<i>Coef</i>	<i>SE</i>	<i>p</i>
Long * Attendance	0.20	0.07	5x10⁻³
<i>Long 5HTT (LL, Ls)</i>	-0.41	0.15	0.01
<i>Church Attendance</i>	0.35	0.06	0.00
<i>Black</i>	0.20	0.05	0.00
<i>Hispanic</i>	-0.18	0.06	0.00
<i>Asian</i>	-0.27	0.09	0.00
<i>Native American</i>	-0.32	0.14	0.02
<i>Age</i>	0.10	0.01	0.00
<i>Male</i>	-0.08	0.04	0.05
<i>Constant</i>	-2.94	0.30	0.00
<i>AIC</i>	13131		
<i>Deviance</i>	13111		
<i>Null Deviance</i>	13579		
<i>N families</i>	9821		
<i>N individuals</i>	9821		

Ordinary logistic regression models of voter turnout (1 = voted in 2000 election) combining information from Add Health subjects originally analyzed in Fowler and Dawes (2008) and a newly released sample. In order to create an “independent” sample we randomly chose one member from each family. Cohen’s d for Long * Attendance is 0.11.

Table S3. Association of Different Specifications of 5HTT with Voter Turnout in a Combined Independent Sample

	<i>Dummy Variable for Each Possible Genotype</i>			<i>Single Variable Indicating Number of L Alleles</i>			<i>Model Without Genotypic Information</i>		
	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>
5HTT L Alleles * Attendance				0.14	0.04	5x10⁻⁴			
5HTT Ls * Attendance	0.14	0.08	0.06						
5HTT LL * Attendance	0.28	0.08	6x10⁻⁴						
<i>5HTT L Alleles</i>				-0.27	0.09	0.00			
<i>5HTT Ls</i>	-0.31	0.17	0.06						
<i>5HTT LL</i>	-0.54	0.17	0.00						
<i>Church Attendance</i>	0.35	0.06	0.00	0.35	0.05	0.00	0.51	0.03	0.00
<i>Black</i>	0.19	0.05	0.00	0.19	0.05	0.00	0.20	0.05	0.00
<i>Hispanic</i>	-0.18	0.06	0.00	-0.18	0.06	0.01	-0.19	0.06	0.00
<i>Asian</i>	-0.26	0.09	0.00	-0.26	0.09	0.00	-0.28	0.09	0.00
<i>Native American</i>	-0.32	0.14	0.02	-0.32	0.14	0.02	-0.31	0.14	0.03
<i>Age</i>	0.10	0.01	0.00	0.10	0.01	0.00	0.10	0.01	0.00
<i>Male</i>	-0.08	0.04	0.05	-0.08	0.04	0.05	-0.08	0.04	0.05
<i>Constant</i>	-2.93	0.30	0.00	-2.96	0.29	0.00	-3.27	0.27	0.00
<i>AIC</i>	13130			13127			13135		
<i>Deviance</i>	13106			13107			13119		
<i>Null Deviance</i>	13579			13579			13579		
<i>N families</i>	9821			9821			9821		
<i>N individuals</i>	9821			9821			9821		

Ordinary logistic regression models of voter turnout (1 = voted in 2000 election), combining information from Add Health subjects originally analyzed in Fowler and Dawes (2008) and a newly released sample. In order to create an “independent” sample we randomly chose one member from each family.. Cohen’s d for 5HTT L Alleles * Attendance is 0.08; for 5HTT Ls * Attendance is 0.08; and for 5HTT LL * Attendance is 0.15.

Table S4. Age Does Not Modify Association of 5HTT with Voter Turnout in a Combined Independent Sample

	<i>Interaction with Age 18-20</i>			<i>Interaction with Age 20-22</i>		
	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>
5HTT L Alleles * Attendance	0.11	0.05	0.02	0.17	0.05	5x10⁻⁴
<i>5HTT L Alleles * Attendance * Age 18-20</i>	0.13	0.09	0.17			
<i>5HTT L Alleles * Attendance * Age 20-22</i>				-0.10	0.08	0.21
<i>5HTT L Alleles * Age 18-20</i>	-0.28	0.21	0.17			
<i>Attendance * Age 18-20</i>	-0.24	0.13	0.06			
<i>5HTT L Alleles * Age 20-22</i>				0.32	0.18	0.08
<i>Attendance * Age 20-22</i>				0.21	0.11	0.06
<i>5HTT L Alleles</i>	-0.20	0.10	0.04	-0.37	0.11	0.00
<i>Church Attendance</i>	0.40	0.06	0.00	0.27	0.07	0.00
<i>Age 18-20</i>	0.05	0.28	0.85	-0.45	0.05	0.00
<i>Age 20-22</i>	-0.27	0.05	0.00	-0.82	0.24	0.00
<i>Black</i>	0.19	0.05	0.00	0.19	0.05	0.00
<i>Hispanic</i>	-0.18	0.06	0.01	-0.18	0.06	0.01
<i>Asian</i>	-0.27	0.09	0.00	-0.26	0.09	0.00
<i>Native American</i>	-0.31	0.14	0.03	-0.31	0.14	0.03
<i>Male</i>	-0.08	0.04	0.06	-0.08	0.04	0.07
<i>Constant</i>	-0.71	0.14	0.00	-0.40	0.15	0.01
<i>AIC</i>	13121			13118		
<i>Deviance</i>	13093			13090		
<i>Null Deviance</i>	13579			13579		
<i>N families</i>	9821			9821		
<i>N individuals</i>	9821			9821		

Ordinary logistic regression models of voter turnout (1 = voted in 2000 election), combining information from Add Health subjects originally analyzed in Fowler and Dawes (2008) and a newly released sample. In order to create an “independent” sample we randomly chose one member from each family. Cohen’s *d* for 5HTT L Alleles * Attendance is 0.09 in Model 1 and 0.06 in model 2.

Table S5. Tests of the Hypothesis that Race and Ethnicity Modify Association of 5HTT with Voter Turnout in a Combined Independent Sample

	<i>Group = Black</i>			<i>Group = Hispanic</i>			<i>Group = Asian</i>			<i>Group = Native American</i>		
	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>
5HTT L Alleles *												
Attendance	0.10	0.05	0.03	0.12	0.04	4x10⁻³	0.13	0.04	2x10⁻³	0.12	0.04	2x10⁻³
5HTT L Alleles * Attendance * Group	0.07	0.10	0.49	0.04	0.12	0.72	-0.13	0.18	0.45	0.67	0.30	0.02
5HTT L Alleles * Group	0.03	0.24	0.92	-0.13	0.25	0.62	0.15	0.39	0.70	-1.19	0.61	0.05
Attendance * Group	0.01	0.16	0.95	-0.26	0.15	0.08	-0.14	0.17	0.40	-0.58	0.30	0.05
5HTT L Alleles	-0.23	0.10	0.02	-0.23	0.09	0.01	-0.25	0.09	0.01	-0.24	0.09	0.01
Church Attendance	0.37	0.06	0.00	0.39	0.06	0.00	0.37	0.06	0.00	0.36	0.05	0.00
Black	-0.08	0.37	0.83	0.38	0.32	0.23	0.11	0.37	0.76	0.66	0.58	0.26
Hispanic	-0.18	0.06	0.00	0.18	0.05	0.00	0.18	0.05	0.00	0.19	0.05	0.00
Asian	-0.28	0.09	0.00	-0.27	0.09	0.00	-0.18	0.06	0.00	-0.18	0.06	0.01
Native American	-0.32	0.14	0.02	-0.31	0.14	0.02	-0.31	0.14	0.02	-0.26	0.09	0.00
Age	0.10	0.01	0.00	0.10	0.01	0.00	0.10	0.01	0.00	0.10	0.01	0.00
Male	-0.08	0.04	0.04	-0.08	0.04	0.04	-0.08	0.04	0.05	-0.08	0.04	0.04
Constant	-2.96	0.29	0.00	-3.06	0.29	0.00	-3.03	0.29	0.00	-2.99	0.29	0.00
AIC	13125			13126			13128			13127		
Deviance	13099			13100			13102			13101		
Null Deviance	13579			13579			13579			13579		
N families	9821			9821			9821			9821		
N individuals	9821			9821			9821			9821		

Ordinary logistic regression models of voter turnout (1 = voted in 2000 election), combining information from Add Health subjects originally analyzed in Fowler and Dawes (2008) and a newly released sample. In order to create an “independent” sample we randomly chose one member from each family. Cohen’s d for 5HTT L Alleles * Attendance is 0.06 for model 1, 0.07 for model 2, 0.07 for model 3 and 0.07 for model 4.

Table S6. Association of “Triallelic” Genotype in 5HTT with Voter Turnout in a Combined Independent Sample

	<i>Coef</i>	<i>SE</i>	<i>p</i>
<i>Triallelic Alleles * Attendance</i>	0.13	0.04	1x10⁻³
<i>Triallelic Alleles</i>	-0.25	0.09	0.00
<i>Church Attendance</i>	0.64	0.05	0.00
<i>Black</i>	0.20	0.05	0.00
<i>Hispanic</i>	-0.18	0.06	0.01
<i>Asian</i>	-0.26	0.09	0.00
<i>Native American</i>	-0.31	0.14	0.02
<i>Age</i>	0.10	0.01	0.00
<i>Male</i>	-0.08	0.04	0.05
<i>Constant</i>	-3.50	0.29	0.00
<i>AIC</i>	13039		
<i>Deviance</i>	13019		
<i>Null Deviance</i>	13484		
<i>N families</i>	9744		
<i>N individuals</i>	9744		

Ordinary logistic regression models of voter turnout (1 = voted in 2000 election), combining information from Add Health subjects originally analyzed in Fowler and Dawes (2008) and a newly released sample. In order to create an “independent” sample we randomly chose one member from each family. Cohen’s d for Triallelic Alleles * Attendance is 0.07.

Table S7. Association of 5HTT with Alternative Measure of Voter Turnout in a Combined Independent Sample

	<i>Linear Regression</i>			<i>Ordered Probit</i>		
	<i>Coef</i>	<i>SE</i>	<i>p</i>	<i>Coef</i>	<i>SE</i>	<i>p</i>
5HTT L * Attendance	0.05	0.02	0.02	0.08	0.03	0.03
<i>5HTT L Alleles</i>	-0.08	0.05	0.08	-0.12	0.08	0.11
<i>Church Attendance</i>	0.19	0.03	0.00	0.33	0.05	0.00
<i>Black</i>	0.21	0.03	0.00	0.33	0.05	0.00
<i>Hispanic</i>	-0.14	0.04	0.00	-0.23	0.06	0.00
<i>Asian</i>	-0.18	0.05	0.00	-0.26	0.08	0.00
<i>Native American</i>	-0.19	0.07	0.01	-0.34	0.12	0.01
<i>Age</i>	0.05	0.01	0.00	0.08	0.01	0.00
<i>Male</i>	-0.14	0.02	0.00	-0.23	0.04	0.00
<i>Constant</i>	1.00	0.16	0.00			
<i>AIC</i>	30428			26547		
<i>Deviance</i>	12608			26523		
<i>Null Deviance</i>	13305			28392		
<i>N families</i>	9860			9860		
<i>N individuals</i>	9860			9860		

Ordinary linear regression model (left) and ordered logit model (right) of alternative measure of voter turnout (“How often do you usually vote in local or statewide elections?” 1 = Never, 2 = Sometimes, 3 = Often, and 4 = Always.) combining information from Add Health subjects originally analyzed in Fowler and Dawes (2008) and a newly released sample. In order to create an “independent” sample we randomly chose one member from each family. Cohen’s d for 5HTT L Alleles * Attendance is 0.03 for model 1, and 0.04 for model 2.