Understanding our Intuitions on Neuro-Chimeras and Human-Brain Organoids

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ONLINE STATISTICAL TABLES

Table 1: Descriptive Statistics. Weighted Means, Standard Errors and Range

Variables	Mean	SE	Minimum	Maximum
Religious Identity Measures				
Catholic	.132	.011	0	1
Conservative Protestant	.218	.013	0	1
Liberal Protestant	.050	.007	0	1
Other Religion	.071	.007	0	1
Identity-Rejecting Protestant	.080	.010	0	1
Low Commitment Christian	.233	.014	0	1
Non-Religious	.215	.012	0	1
Theological Beliefs				
Humans in Image of God	-.243	.042	-4	4
Creatures Not Co-Creators	3.07	.056	1	5
Kingdom Not Via Humans	3.02	.051	1	5
Humans Have Dominion	1.21	.017	1	2
Demographic Measures				
Female	.490	.016	0	1
Education Category	3.02	.042	1	5
Age	48.6	.042	18	93
African American	.130	.012	0	1
Latino/a American	.185	.015	0	1

Asian American	.075	.008	0	1
White	.571	.016	0	1
Expanded Cultural Authority of Science				
Republican	.246	.013	0	1
Independent	.380	.015	0	1
Democrat	.373	.015	0	1
Self-assessed Scientific Knowledge	3.69	.031	1	5
Scientism	10.1	.078	3	14
Shared Morals and Trust Scientists	1.41	.012	.45	2
Orientation Toward Nature				
Nature Should Be Mysterious	3.34	.040	1	5
Humans Dominion Over Nature	5.96	.074	2	10
Species Have Their Own Purpose	3.17	.025	1	4
Foundational Distinction Humans/Animals				
Humans/Animals Are Similar	3.54	.035	1	5
Chimp With Human Brain Is Human	2.39	.039	1	5

Table 2: Ordered Logit Coefficients HBO Research

Variables	Approve of HBO Research	OK to Destroy HBO
HBO 5 Inches	0.0392	0.00931
	(0.111)	(0.108)
HBO Manufactured	-0.227*	-0.0383
	(0.111)	(0.108)
Made 10,000 HBOs	0.0919	0.0496
	(0.112)	(0.109)
HBO is Aware of Self	0.213#	-0.0215
	(0.112)	(0.108)
Consciousness of Insect	-0.0575	-0.00903
	(0.161)	(0.158)
Consciousness of Pig	-0.255	-0.102
	(0.163)	(0.158)
Consciousness of Fetus	-0.0783 ^*1	0.0888
	(0.158)	(0.153)
/cut1	-3.153***	-3.252***
	(0.198)	(0.203)
/cut2	-2.357***	-1.891***
	(0.172)	(0.163)
/cut3	-0.866***	-0.245
	(0.161)	(0.154)
/cut4	0.916***	0.961***
	(0.162)	(0.157)
Constant		
Observations	2093	2091
Pseudo R-squared or R-squared	.004	.001

Notes: ***= $p < .001$, **=$p<.01$, *=$p<.05$, #=$p<.10$ in ordered logistic model. ^ = Significant only in a generalized ordered logistic model, with the number following the ^ indicating the category of the dependent variable where the binary effect begins.

Table 3: Ordered Logit Coefficients Predicting Approval of NC Research

Variables	Ordered Logit	Ordered Logit	Ordered Logit	Standardized Effect Size
Religious Identity Measures				
Catholic	-0.0873	0.0466	-0.0754	-.01
	(0.184)	(0.186)	(0.208)	
Conservative Protestant	-0.226	0.0547	0.0404	.01
	(0.165)	(0.184)	(0.215)	
Liberal Protestant	0.252 ^*3	0.476	0.00192	.00
	(0.278)	(0.286)	(0.348)	
Other Religion	0.134		-0.0153	-.00
	(0.195)		(0.204)	
Identity-Rejecting Protestant	-0.342	-0.132	-0.212	-.03
	(0.237)	(0.329)	(0.257)	
Low Commitment Christian	-0.0830 ^**4		-0.0655 ^*4	-.01
	(0.157)		(0.169)	
Theological Beliefs				
Humans in Image of God		-0.243***	-0.107*	-.07
		(0.0665)	(0.0498)	
Creatures Not Co-Creators		0.0302		
		(0.0536)		
Kingdom Not Via Humans		-0.183**		
		(0.0571)		
Humans Have Dominion		0.499**		
		(0.156)		
Demographic Measures				
Female			-0.227	-.05
			(0.117)	
Education			-0.0378 ^*2	-.02
			(0.0578)	
Age			0.00106 ^**2	.01
			(0.00359)	
African American			0.0403	.01
			(0.195)	
Latino/a American			-0.201	-.04
			(0.209)	
Asian American			-0.139	-.07
			(0.216)	
Expanded Cultural Authority of Science				
Republican			-0.0412	-.01
			(0.156)	

Independent			-0.124	-.03
			(0.141)	
Self-assessed Scientific Knowledge			0.148*	.07
			(0.0691)	
Scientism			0.171***	.20
			(0.0360)	
Shared Morals and Trust Scientists			0.652**	.11
			(0.241)	
Orientation Toward Nature				
Nature Should Be Mysterious			-0.335***	-.20
			(0.0567)	
Humans Dominion Over Nature			0.234***	.26
			(0.0315)	
Species Have Their Own Purpose			-0.340***	-.13
			(0.0770)	
Foundational Distinction Humans/Animals				
Humans/Animals Are Similar			.167*	.09
			(0.0681)	
Chimp With Human Brain Is Human			0.107 ^*1,2	.06
			(0.0571)	
Cutpoint 1	-1.794***	-1.521***	0.840	
	(0.129)	(0.350)	(0.593)	
Cutpoint 2	-0.780***	-0.483	2.111***	
	(0.117)	(0.342)	(0.595)	
Cutpoint 3	0.317**	0.559	3.397***	
	(0.117)	(0.342)	(0.605)	
Cutpoint 4	1.925***	2.378***	5.357***	
	(0.146)	(0.358)	(0.616)	
N	2,088	1,281	1910	
Pseudo-R squared	.014	.020	.103	

Notes: ***= p< .001, **=p<.01, *=p<.05, #=p<.10 in ordered logistic model. ^ = Significant only in a generalized ordered logistic model, with the number following the ^ indicating the category of the dependent variable where the binary effect begins. Reference categories are: for religious identity the non-religious, for race White, for party identification democrat.

Table 4: Ordered Logit Coefficients for Vignette Factors, NC Research

Variables	Approve of NC Research	Not Much Difference With Human	Treat Better than Other Animals	With Enough Qualities, Same Importance as Human
Monkey (ref category mouse)	-0.605***	0.198#	-0.198^**1,2	0.339**
	(0.108)	(0.110)	(0.113)	(0.108)
New Species	-0.314**	-0.129	-0.190#	-0.110
	(0.107)	(0.110)	(0.112)	(0.109)
Modify: implant brain tissue	-0.346*	-0.307*	-0.202	-0.0495
	(0.136)	(0.155)	(0.153)	(0.157)
Modify: genetically related brain	-0.218 **^1,2	-0.143	-0.148	0.0957^*4
	(0.147)	(0.155)	(0.159)	(0.155)
Modify: move like human	-0.362*	-0.343*	-0.254#	-0.00844
	(0.147)	(0.159)	(0.152)	(0.158)
Named: Chimera	0.299*	0.0431	0.207^*3	0.157
	(0.130)	(0.133)	(0.142)	(0.133)
Named: Cebir	0.367**	0.295*	0.125	0.344**
	(0.133)	(0.133)	(0.132)	(0.132)
/cut1	-2.211***	-0.901***	-1.746***	-0.733***
	(0.145)	(0.160)	(0.160)	(0.159)
/cut2	-1.162***	0.140	-0.891***	0.138
	(0.137)	(0.159)	(0.154)	(0.158)
/cut3	-0.0205	1.469***	0.941***	1.377***
	(0.136)	(0.169)	(0.158)	(0.166)
/cut4	1.619***	3.163***	2.366***	2.873***
	(0.153)	(0.219)	(0.181)	(0.190)
Observations	2,093	2,091	2,091	2,092
Pseudo R-squared	.012	.005	.004	.005

Notes: ***= p< .001, **=p<.01, *=p<.05, #=p<.10. ^ = Significant only in a generalized ordered logistic model, with the number following the ^ indicating the category of the dependent variable where the binary effect begins.

Table 5: Ordered Logit Coefficients: Treatment of HBOs and NCs

Variables	OK to Destroy HBOs	HBO with Human Traits Treat More Like Human	OK to Destroy HBOs	HBO with Human Traits Treat More Like Human
HBO is Extension of Cell Donor	-0.277***	0.992***		
	(0.0635)	(0.0751)		
HBO Has Thoughts of Cell Donor			-0.0872^*4	0.433***
			(0.0640)	(0.0668)
Approve of HBO Research	0.676***	0.0360	0.639***	0.130
	(0.0894)	(0.0748)	(0.0920)	(0.0797)
Religious Identity Measures				
Catholic	-0.0169	0.503*	-0.0531	0.566**
	(0.224)	(0.214)	(0.227)	(0.215)
Conservative Protestant	-0.118	0.362	-0.170	0.517*
	(0.210)	(0.205)	(0.212)	(0.201)
Liberal Protestant	0.00702	0.505*	-0.0487	0.649*
	(0.340)	(0.243)	(0.331)	(0.266)
Other Religion	-0.243	0.244	-0.279	0.254
	(0.195)	(0.193)	(0.196)	(0.181)
Identity-Rejecting Protestant	0.195	0.0600	0.105	0.324
	(0.270)	(0.288)	(0.279)	(0.300)
Low Commitment Christian	0.0621	0.0668	0.0116	0.162
	(0.183)	(0.161)	(0.185)	(0.168)
Theological Beliefs				
Humans in Image of God	-0.127*	-0.0438	-0.143**	0.00319
	(0.0525)	(0.0512)	(0.0523)	(0.0546)
Demographic Measures				
Female	0.183	-0.0244	0.157	0.0379
	(0.125)	(0.119)	(0.124)	(0.120)
Education	-0.0421^*2	-0.0579^*2	-0.0212	-0.0934^*2,4
	(0.0604)	(0.0530)	(0.0613)	(0.0599)
Age	0.0155***	-0.0130**	0.0170***	-0.0163***
	(0.00402)	(0.00413)	(0.00389)	(0.00388)
African American	0.205	0.138	0.164	0.314
	(0.233)	(0.219)	(0.230)	(0.226)
Latino/a American	-0.0599	0.264^**1,2	-0.0275	0.0709^**2
	(0.192)	(0.162)	(0.195)	(0.167)
Asian American	-0.294	0.458*	-0.288	0.435*
	(0.189)	(0.228)	(0.189)	(0.222)

Expanded Cultural Authority of Science				
Republican	0.0607	-0.504**	0.0939	-0.530**
	(0.167)	(0.161)	(0.168)	(0.164)
Independent	-0.171	0.00210	-0.192	0.122
	(0.153)	(0.141)	(0.151)	(0.143)
Self-assessed Scientific Knowledge	0.196**	-0.0456^**1,2	0.199**	-0.0605
	(0.0714)	(0.0675)	(0.0730)	(0.0678)
Scientism	0.0391	0.0654	0.0242	0.105**
	(0.0420)	(0.0407)	(0.0419)	(0.0392)
Shared Morals and Trust Scientists	-0.126	-0.140	-0.114	-0.181
	(0.268)	(0.281)	(0.272)	(0.282)
Orientation Toward Nature				
Nature Should Be Mysterious	0.133*	-0.0579	0.115*	-0.0335
	(0.0589)	(0.0567)	(0.0572)	(0.0564)
Humans Dominion Over Nature	0.0292	0.0448	0.0221	0.0465
	(0.0300)	(0.0285)	(0.0293)	(0.0307)
Species Have Their Own Purpose	0.0395	-0.0145	0.00168	0.0615
	(0.0853)	(0.0757)	(0.0845)	(0.0781)
Foundational Distinction Humans/Animals				
Humans/Animals Are Similar	-0.0104	0.0365	-0.0322	0.0796
	(0.0671)	(0.0602)	(0.0666)	(0.0627)
Chimp With Human Brain Is Human	-0.149*	0.304***	-0.164**	0.324***
	(0.0601)	(0.0558)	(0.0611)	(0.0576)
Cutpoint 1	0.0791	1.226	0.207	0.850
	(0.675)	(0.650)	(0.694)	(0.684)
Cutpoint 2	1.612*	2.590***	1.736*	1.992**
	(0.665)	(0.655)	(0.679)	(0.686)
Cutpoint 3	3.398***	4.574***	3.504***	3.708***
	(0.676)	(0.672)	(0.690)	(0.695)
Cutpoint 4	4.803***	6.630***	4.882***	5.581***
	(0.692)	(0.708)	(0.706)	(0.726)
N	1,907	1904	1,908	1,904
Pseudo-R squared	.065	.162	.058	.093

Notes: ***= p< .001, **=p<.01, *=p<.05, #=p<.10. ^ = Significant only in a generalized ordered logistic model, with the number following the ^ indicating the category of the dependent variable

where the binary effect begins. Reference categories are: for religious identity the non-religious, for race White, for party identification democrat.

Table 6: Ordered Logit Coefficients Predicting Approval of HBO Research

Variables	Ordered Logit	Ordered Logit	Ordered Logit	Standardized Effect Size
Religious Identity Measures				
Catholic	-0.412*	0.00586	-0.402#	-.06
	(0.176)	(0.192)	(0.229)	
Conservative Protestant	-0.721***	-0.131	-0.128	-.03
	(0.166)	(0.191)	(0.216)	
Liberal Protestant	0.300	0.786**	0.106	.01
	(0.272)	(0.296)	(0.319)	
Other Religion	-0.185		-0.419*	-.05
	(0.196)		(0.210)	
Identity-Rejecting Protestant	-1.116***	-0.529	-0.862**	-.11
	(0.263)	(0.358)	(0.294)	
Low Commitment Christian	-0.455**		-0.368*	-.07
	(0.156)		(0.175)	
Theological Beliefs				
Humans in Image of God		-0.172*	-0.0222 **^2	-.02
		(0.0724)	(0.0510)	
Creatures Not Co-Creators		-0.0191 ^*1,2		
		(0.0558)		
Kingdom Not Via Humans		-0.196**		
		(0.0651)		
Humans Have Dominion		0.163		
		(0.151)		
Demographic Measures				
Female			-0.0665	-.02
			(0.128)	
Education			0.00206	.00
			(0.0624)	
Age			0.00680 **^3	.06
			(0.00429)	
African American			-0.0927	-.02
			(0.207)	
Latino/a American			0.0325	.01
			(0.194)	
Asian American			0.0754	.01
			(0.280)	
Expanded Cultural Authority of Science				
Republican			-0.163	-.03
			(0.161)	

Independent			0.111	.03
			(0.151)	
Self-assessed Scientific Knowledge			0.0585	.03
			(0.0776)	
Scientism			0.183***	.21
			(0.0414)	
Shared Morals and Trust Scientists			0.974***	.17
			(0.282)	
Orientation Toward Nature				
Nature Should Be Mysterious			-0.340***	-.20
			(0.0598)	
Humans Dominion Over Nature			0.0595#	.07
			(0.0314)	
Species Have Their Own Purpose			0.0963 *^2	.04
			(0.0868)	
Foundational Distinction Humans/Animals				
Humans/Animals Are Similar			0.228***	.12
			(0.0689)	
Chimp With Human Brain Is Human			0.0520	.03
			(0.0599)	
Cutpoint 1	-3.569***	-3.580***	0.200	
	(0.180)	(0.356)	(0.679)	
Cutpoint 2	-2.771***	-2.711***	1.146	
	(0.139)	(0.350)	(0.678)	
Cutpoint 3	-1.262***	-1.234***	2.821***	
	(0.113)	(0.339)	(0.679)	
Cutpoint 4	0.564***	0.576	5.026***	
	(0.108)	(0.338)	(0.694)	
N	2,088	1,281	1,910	
Pseudo-R squared	.014	.020	.105	

Notes: ***= p< .001, **=p<.01, *=p<.05, #=p<.10. ^ = Significant only in a generalized ordered logistic model, with the number following the ^ indicating the category of the dependent variable where the binary effect begins. Reference categories are: for religious identity the non-religious, for race White, for party identification democrat.

Table 7: OLS Coefficients: Belief in Ephemeral Connections with HBOs

Variables	Belief in Ephemeral Connection Between HBO and Human
Religious Identity Measures	
Catholic	0.522*
	(0.212)
Conservative Protestant	0.443*
	(0.191)
Liberal Protestant	0.222
	(0.257)
Other Religion	0.597**
	(0.193)
Identity-Rejecting Protestant	0.750*
	(0.308)
Low Commitment Christian	0.431*
	(0.180)
Theological Beliefs	
Humans in Image of God	0.119*
	(0.0572)
Demographic Measures	
Female	0.165
	(0.114)
Education	-0.159**
	(0.0509)
Age	-0.0115**
	(0.00366)
African American	0.284
	(0.197)
Latino/a American	-0.318
	(0.173)
Asian American	-0.242
	(0.200)
Expanded Cultural Authority of Science	
Republican	-0.256
	(0.160)
Independent	-0.00939
	(0.138)
Self-assessed Scientific Knowledge	-0.0697
	(0.0635)
Scientism	0.101**
	(0.0378)
Shared Morals and Trust Scientists	0.115
	(0.242)

Orientation Toward Nature	
Nature Should Be Mysterious	0.175**
	(0.0536)
Humans Dominion Over Nature	0.0942***
	(0.0283)
Species Have Their Own Purpose	0.106
	(0.0686)
Foundational Distinction Humans/Animals	
Humans/Animals Are Similar	0.115*
	(0.0565)
Chimp With Human Brain Is Human	0.369***
	(0.0545)
Constant	3.251***
	(0.559)
N	1907
R-squared	.209

Notes: ***= p< .001, **=p<.01, *=p<.05, #=p<.10 Reference categories are: for religious identity the non-religious, for race White, for party identification democrat.