

APPENDIX: Supplementary Tables

Supplementary Table 1: Interaction effects between candidate genes and race for additive risk models for attachment security and disorganization scores, additive genetic models

Gene	Security				Disorganization			
	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>B</i>	<i>SE</i>	β	<i>p</i>
DRD2								
DRD2	.06	.49	.02	.90	-.60	.40	-.20	.13
Race	.47	.36	.11	.20	-.004	.29	-.001	.99
DRD2 X Race	.31	.61	.07	.61	.32	.49	.09	.51
DRD4								
DRD4	-.29	.36	-.08	.43	-.10	.30	-.03	.74
Race	.54	.34	.12	.11	-.18	.28	-.05	.54
DRD4 X Race	.35	.56	.06	.63	.23	.45	.05	.61
COMT								
COMT	-.34	.35	-.11	.33	.23	.28	.09	.41
Race	.63	.36	.14	.08	-.16	.30	-.04	.58
COMT X Race	.21	.52	.04	.69	-.46	.43	-.11	.29
Di_5-HTT								
Di_5-HTT	-.26	.34	-.08	.45	-.03	.28	-.01	.93
Race	.61	.35	.14	.08	-.26	.29	-.07	.37
Di_5-HTT X Race	.93	.49	.20	.06	-.45	.41	-.12	.27
Tri_5-HTT								
Tri_5-HTT	.03	.33	.01	.92	-.10	.27	-.04	.71
Race	.51	.34	.12	.14	-.18	.28	-.05	.53
Tri_5-HTT X Race	.56	.48	.12	.25	.15	.40	.04	.70
OXTR								
OXTR	.20	.32	.06	.54	-.18	.26	-.07	.49
Race	.53	.35	.12	.13	-.13	.28	-.04	.65
OXTR X Race	-.54	.49	-.11	.27	.57	.40	.14	.16

Note. Additive models are presented. *B*, changes in security and disorganization scores per unit change in the predictor.

Supplementary Table 2: Interaction effects between candidate genes and race on attachment security and disorganization scores, genetic dominance models

Gene X Race Gene	Security				Disorganization			
	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>B</i>	<i>SE</i>	β	<i>p</i>
DRD2								
DRD2	-.07	.53	-.02	.90	-.56	.42	-.15	.19
Race	.43	.45	.10	.96	-.31	.37	-.09	.39
DRD2 X Race	.24	.73	.05	.74	.56	.59	.13	.34
DRD4								
DRD4	-.56	.50	-.12	.27	.03	.41	.01	.94
Race	.35	.43	.08	.41	-.21	.36	-.06	.57
DRD4 X Race	.55	.71	.10	.44	.07	.58	.02	.90
COMT								
COMT	-.18	.48	-.03	.72	.18	.39	.04	.66
Race	.56	.35	.13	.11	-.19	.29	-.05	.51
COMT X Race	-1.04	1.10	-.23	.35	.02	.90	.01	.98
Di_5-HTT								
Di_5-HTT	-.41	.51	-.09	.42	.10	.42	.03	.82
Race	-.20	.54	-.05	.71	.21	.44	.06	.64
Di_5-HTT X Race	1.38	.71	.26	.05	-.78	.58	-.18	.18
Tri_5-HTT								
Tri_5-HTT	-.03	.56	-.01	.96	-.02	.46	-.01	.96
Race	-.17	.73	-.04	.82	-.37	.60	-.10	.54
Tri_5-HTT X Race	.89	.82	.19	.28	.24	.68	.06	.72
OXTR								
OXTR	.29	.47	.07	.54	.07	.38	.02	.85
Race	.95	.46	.21	.04	-.38	.38	-.10	.32
OXTR X Race	-.96	.69	-.17	.17	.62	.57	.13	.28

Note. Bold coefficients indicate significant at $p < .05$.

Supplementary Table 3: Interaction effects between candidate genes and race on attachment security and disorganization scores, heterozygous vs. homozygous genetic association models

Gene X Race	Security				Disorganization			
Gene	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>B</i>	<i>SE</i>	β	<i>p</i>
DRD2								
DRD2	-.33	.37	-.07	.37	.07	.30	.02	.81
Race	.57	.34	.13	.10	-.16	.28	-.04	.58
DRD2 X Race	-.23	.74	-.04	.76	1.06	.60	.22	.08
DRD4								
DRD4	-.37	.38	-.08	.33	.14	.31	.04	.65
Race	.58	.34	.13	.10	-.19	.28	-.05	.51
DRD4 X Race	.58	.76	.10	.44	-.29	.62	-.06	.64
COMT								
COMT	.26	.34	.06	.45	.12	.28	.03	.67
Race	.56	.34	.13	.10	-.15	.28	-.04	.60
COMT X Race	-1.08	.68	-.19	.12	.67	.56	.14	.24
Di_5-HTT								
Di_5-HTT	.23	.35	.05	.52	-.12	.29	-.03	.67
Race	.57	.35	.13	.10	-.19	.28	-.05	.50
Di_5-HTT X Race	.93	.70	.16	.18	-.74	.57	-.15	.20
Tri_5-HTT								
Tri_5-HTT	-.07	.34	-.02	.84	.18	.28	.05	.51
Race	.54	.34	.12	.12	-.18	.28	-.05	.53
Tri_5-HTT X Race	.09	.69	.02	.90	.02	.56	.01	.97
OXTR								
OXTR	-.26	.37	-.06	.48	.66	.30	.17	.03
Race	.52	.34	.12	.13	-.10	.28	-.03	.72
OXTR X Race	-.96	.74	-.15	.20	.18	.60	.03	.77

Note. Bold coefficients indicate significant at $p < .05$.

Supplementary Table 4: Interaction effects of candidate genes, sensitivity, and race on attachment security and disorganization scores, genetic dominance models

Gene	Security					Disorganization					
	ΔR^2	<i>B</i>	<i>SE</i>	β	<i>p</i>	ΔR^2	<i>B</i>	<i>SE</i>	β	<i>p</i>	
DRD2											
Step 1	DRD2	.03	.05	.36	.01	.89	.05	-.25	.29	-.07	.38
	Sensitivity		.24	.14	.15	.08		-.29	.11	-.23	.01
	Race		.87	.40	.19	.03		-.52	.33	-.14	.11
Step 2	DRD2 X Sens	.004	-.13	.28	-.05	.63	.02	.22	.23	.11	.34
	DRD2 X Race		-.002	.83	.00	.99		.96	.67	.22	.15
	Sense X Race		.19	.28	.08	.50		-.22	.22	-.11	.32
Step 3	DRD2 X Sens X Race	.01	-.72	.56	-.22	.20	.00	-.05	.45	-.02	.92
DRD4											
Step 1	DRD4	.04	-.22	.35	-.05	.53	.05	-.01	.43	.003	.98
	Sensitivity		.24	.14	.16	.07		-.30	.11	-.24	.01
	Race		.91	.39	.20	.02		-.63	.32	-.17	.05
Step 2	DRD4 X Sens	.02	-.46	.28	-.19	.10	.01	.01	.22	.003	.98
	DRD4 X Race		-.01	.82	-.002	.99		-.08	.68	-.02	.91
	Sense X Race		.23	.27	.10	.40		-.22	.22	-.11	.32
Step 3	DRD4 X Sens X Race	.001	.19	.55	.06	.73	.004	-.39	.45	-.14	.39
COMT											
Step 1	COMT	.04	-.29	.48	-.05	.55	.05	.27	.38	.05	.48
	Sensitivity		.26	.13	.17	.06		-.30	.11	-.24	.01
	Race		.95	.40	.21	.02		-.66	.33	-.18	.05
Step 2	COMT X Sens	.01	-.01	.35	-.01	.97	.01	-.21	.28	-.15	.46
	COMT X Race		-1.22	1.26	-.27	.34		-.18	1.04	-.05	.86
	Sense X Race		.22	.28	.09	.43		-.16	.23	-.08	.48
Step 3	COMT X Sens X Race	.00	.06	.81	.02	.94	.001	-.23	.66	-.11	.73

Note. Bold coefficients indicate significant at $p < .05$. Sen: maternal sensitivity across 6 months and age 1.

Supplementary Table 4. *Continued.*

Gene		ΔR^2	Security			Disorganization					
			<i>B</i>	<i>SE</i>	β	<i>p</i>	ΔR^2	<i>B</i>	<i>SE</i>	β	<i>p</i>
Di_5-HTT											
Step 1	Di_5-HTT	.04	.24	.36	.05	.49	.05	-.23	.29	-.06	.43
	Sensitivity		.24	.13	.16	.07		-.29	.11	-.23	.01
	Race		.95	.40	.21	.02		-.67	.32	-.18	.04
	Sense X Race		.17	.27	.07	.78		-.15	.22	-.08	.30
Step 2	Di_5-HTT X Sens	.03	.08	.28	.04	.07	.02	.24	.23	.15	.49
	Di_5-HTT X Race		1.49	.80	.28	.54		-.45	.65	-.10	.50
Step 3	Di_5-HTT X Sens X Race	.02	.95	.56	.29	.09	.01	-.42	.46	-.16	.36
Tri_5-HTT											
Step 1	Tri_5-HTT	.04	.29	.41	.05	.48	.05	.20	.34	.05	.56
	Sensitivity		.24	.14	.16	.08		-.31	.11	-.25	.01
	Race		.87	.39	.20	.03		-.64	.32	-.17	.05
	Sense X Race		.15	.27	.06	.77		-.25	.22	-.13	.17
Step 2	Tri_5-HTT X Sens	.01	.10	.34	.06	.32	.02	.39	.28	.28	.26
	Tri_5-HTT X Race		.98	.97	.21	.58		.89	.79	.24	.25
Step 3	Tri_5-HTT X Sens X Race	.01	.64	.71	.25	.37	.001	-.25	.22	-.13	.74
OXTR											
Step 1	OXTR	.03	-.12	.35	-.03	.73	.05	.32	.28	.09	.25
	Sensitivity		.23	.14	.15	.09		-.28	.11	-.23	.01
	Race		.86	.40	.19	.03		-.52	.32	-.14	.11
Step 2	OXTR X Sens	.04	-.50	.28	-.21	.08	.03	.31	.23	.16	.19
	OXTR X Race		-1.81	.80	-.31	.03		1.24	.65	.26	.06
	Sense X Race		.02	.28	.01	.96		-.12	.23	-.06	.61
Step 3	OXTR X Sens X Race	.01	-.65	.57	-.16	.25	.001	.20	.46	.06	.66
COMT_{homo}											
Step 1	COMT _{homo}	.04	.23	.34	.05	.50	.05	.15	.28	.04	.59
	Sensitivity		.24	.13	.16	.07		-.30	.11	-.24	.01
	Race		.91	.39	.21	.02		-.59	.32	-.16	.07
Step 2	COMT _{homo} X Sens	.02	.20	.27	.09	.46	.01	-.01	.22	-.01	.95
	COMT _{homo} X Race		-.71	.79	-.13	.37		.57	.65	.12	.38
	Sense X Race		.23	.27	.10	.39		-.21	.22	-.11	.35
Step 3	COMT _{homo} X Sens X Race	.00	.35	.54	.10	.52	.001	.47	.44	.16	.29

Supplementary Table 5: Interaction effects of candidate genes, overtly negative behavior, and race on attachment security and disorganization scores, genetic dominance models

Gene		Security					Disorganization				
		ΔR^2	<i>B</i>	<i>SE</i>	β	<i>p</i>	ΔR^2	<i>B</i>	<i>SE</i>	β	<i>p</i>
DRD2											
Step 1	DRD2	.04	.07	.36	.02	.84	.04	-.29	.29	-.08	.32
	Overtly negative maternal behavior		-.13	.06	-.17	.03		.11	.05	.17	.03
	Race		.61	.35	.14	.09		-.16	.29	-.04	.57
Step 2	DRD2 X Maternal behavior	.00	.02	.14	.02	.89	.01	-.02	.12	-.02	.88
	DRD2 X Race		.30	.73	.06	.69		.51	.59	.12	.39
	Maternal behavior X Race		-.01	.14	-.01	.95		.04	.11	.04	.74
Step 3	DRD2 X Maternal behavior X Race	.00	-.00	.29	-.00	.99	.00	.28	.24	.23	.24
DRD4											
Step 1	DRD4	.05	-.23	.35	-.05	.51	.03	.03	.29	.01	.91
	Overtly negative maternal behavior		-.13	.06	-.17	.02		.11	.05	.17	.03
	Race		.66	.34	.15	.06		-.26	.28	-.07	.35
Step 2	DRD4 X Maternal behavior	.01	.18	.12	.15	.15	.01	-.08	.10	-.08	.43
	DRD4 X Race		.30	.71	.05	.68		.25	.59	.05	.68
	Maternal behavior X Race		.03	.12	.03	.80		.00	.10	.00	.99
Step 3	DRD4 X Maternal behavior X Race	.00	-.00	.25	-.00	.99	.01	-.19	.21	-.11	.37
COMT											
Step 1	COMT	.05	-.28	.48	-.05	.57	.03	.25	.39	.05	.53
	Overtly negative maternal behavior		-.14	.06	-.18	.02		.11	.05	.17	.02
	Race		.68	.35	.15	.05		-.29	.29	-.08	.32
Step 2	COMT X Maternal behavior	.02	.22	.12	.21	.06	.01	-.10	.10	-.12	.30
	COMT X Race		-.30	.50	-.05	.55		.43	.41	.09	.30
	Maternal behavior X Race		-.01	.12	-.01	.94		.02	.10	.02	.86
Step 3	COMT X Maternal behavior X Race	.00	.00	.23	.00	.99	.00	.09	.19	.07	.64
Di_5-HTT											
Step 1	Di_5-HTT	.05	.23	.35	.05	.51	.04	-.25	.29	-.07	.38
	Overtly negative maternal behavior		-.13	.06	-.17	.03		.10	.05	.17	.03
	Race		.70	.35	.16	.05		-.32	.29	-.09	.27
Step 2	Di_5-HTT X Maternal behavior	.03	-.15	.12	-.15	.22	.01	.07	.10	.08	.51
	Di_5-HTT X Race		1.44	.71	.27	.04		-.79	.58	-.18	.18
	Maternal behavior X Race		-.04	.12	-.04	.76		.03	.10	.04	.74
Step 3	Di_5-HTT X Maternal behavior X Race	.00	-.15	.25	-.09	.54	.00	-.16	.21	-.10	.45

Supplementary Table 5. *Continued.*

Gene		ΔR^2	Security				Disorganization				
			<i>B</i>	<i>SE</i>	β	<i>p</i>	ΔR^2	<i>B</i>	<i>SE</i>	β	<i>p</i>
Tri_5-HTT											
Step 1	Tri_5-HTT	.05	.25	.41	.05	.54	.03	.19	.34	.04	.57
	Overtly negative maternal behavior		-.13	.06	-.17	.03		.11	.05	.17	.03
	Race		.62	.34	.14	.07		-.26	.28	-.07	.36
Step 2	Tri_5-HTT X Maternal behavior	.01	-.10	.13	-.11	.47	.00	.03	.11	.03	.82
	Tri_5-HTT X Race		.97	.83	.21	.24		.24	.69	.06	.73
	Maternal behavior X Race		.01	.12	.01	.97		.02	.10	.02	.83
Step 3	Tri_5-HTT X Maternal behavior X Race	.00	.06	.26	.04	.83	.01	-.29	.22	-.27	.18
OXTR											
Step 1	OXTR	.04	-.07	.35	-.02	.84	.04	.29	.28	.08	.30
	Overtly negative maternal behavior		-.13	.06	-.16	.04		.10	.05	.16	.04
	Race		.61	.35	.14	.08		-.18	.28	-.05	.54
Step 2	OXTR X Maternal behavior	.03	.21	.12	.20	.09	.01	-.06	.10	-.07	.55
	OXTR X Race		-1.01	.70	-.18	.15		.57	.58	.12	.33
	Maternal behavior X Race		.01	.12	.01	.92		.01	.10	.01	.92
Step 3	OXTR X Maternal behavior X Race	.00	-.06	.25	-.04	.81	.01	.22	.20	.17	.29
COMT_{hom}											
Step 1	COMT _{hom}	.05	.28	.34	.06	.41	.03	.10	.28	.03	.72
	Overtly negative maternal behavior		-.13	.06	-.17	.02		.11	.05	.17	.03
	Race		.67	.34	.15	.05		-.23	.28	-.06	.41
Step 2	COMT _{hom} X Maternal behavior	.04	.23	.11	.22	.05 ¹	.01	-.10	.10	-.12	.28
	COMT _{hom} X Race		-1.17	.68	-.21	.09		.68	.56	.15	.23
	Maternal behavior X Race		-.01	.11	-.01	.92		.02	.10	.02	.86
Step 3	COMT _{hom} X Maternal behavior X Race	.00	-.04	.23	-.03*	.85	.00	.11	.19	.09	.58

Note. Bold coefficients indicate significant at $p < .05$. Maternal behavior: Overtly negative maternal behavior across 6 months and age 1.

¹The interaction between COMT_{hom} and negative maternal behavior was not statistically significant in a model that did not include race suggesting this may be a suppressor effect. Nevertheless, we interpreted the interaction. Overtly negative maternal behavior was associated with lower attachment security for COMT homozygous infants ($\beta = -.31$, $p < .01$) but was not for COMT heterozygous infants ($\beta = -.01$, $p > .05$).

Supplementary Table 6: Main effects of candidate genes on emotional distress by group, genetic dominance models

Gene	<i>Full Sample</i>		<i>European American</i>		<i>African American</i>	
	r_{dom}	p_{dom}	r_{dom}	p_{dom}	r_{dom}	p_{dom}
DRD2	-.004	.96	-.07	.51	.06	.59
DRD4	.08	.31	.09	.41	.01	.96
COMT	.05	.52	.02	.87	.13	.26
Di_5-HTT	.09	.24	.09	.40	.06	.60
Tri_5-HTT	.02	.78	.10	.34	-.08	.45
OXTR	-.09	.26	-.15	.16	.04	.73
Mean r	.02		.01		.04	

Supplementary Table 7: Interaction effects between candidate genes and race on emotional distress, genetic dominance models

Gene X Race Gene	Emotional distress		
	<i>B</i>	<i>SE</i>	<i>p</i>
DRD2			
DRD2	-.03	.33	.94
Race	-.11	.32	.72
DRD2 X Race	-.21	.25	.81
DRD4			
DRD4	.20	.32	.53
Race	-.15	.31	.62
DRD4 X Race	-.43	.26	.10
COMT			
COMT	.31	.44	.48
Race	-.21	.32	.51
COMT X Race	1.14	1.23	.35
Di_5-HTT			
Di_5-HTT	.32	.33	.33
Race	-.07	.32	.84
Di_5-HTT X Race	-.16	.65	.81
Tri_5-HTT			
Tri_5-HTT	.08	.38	.84
Race	-.14	.31	.65
Tri_5-HTT X Race	-.91	.75	.23
OXTR			
OXTR	-.26	.32	.42
Race	-.16	.31	.62
OXTR X Race	.77	.63	.23