Variable	model	df	-2LL	AIC	BIC (n adj)
THT PsyNeuro	ACE	447	824.314	-69.686	-109.799
	$\mathbf{AE}^{a,b}$	448	824.314	-71.686	-110.967
	CE	448	829.264	-66.736	-108.492
	E	449	853.632	-44.386	-97.475
DIS PsyNeuro	ACE	447	898.921	4.921	-72.496
	$\mathbf{AE}^{a,b}$	448	899.055	3.055	-73.596
	CE	448	911.081	15.081	-67.583
	E	449	986.241	88.241	-31.171
THT PsyNeuro x DIS PsyNeuro	ACE	447	543.724	-350.276	-250.094
	$AE^{a,b}$	448	543.724	-352.276	-251.262
	CE	448	546.092	-349.908	-250.078
	Е	449	549.830	-348.170	-249.377
Distress Symptoms	ACE	464	-585.784	-1513.784	-836.562
	$\mathbf{AE}^{a,b}$	465	-585.784	-1515.784	-837.734
	CE	465	-582.750	-1512.750	-836.217
	E	466	-565.091	-1497.091	-828.559
Fear Symptoms	ACE	464	-694.277	-1622.277	-890.809
	$\mathbf{AE}^{a,b}$	465	-694.277	-1624.277	-891.981
	CE	465	-686.664	-1616.664	-888.174
	E	466	-667.353	-1599.353	-879.690
Substance Use Symptoms	ACE	464	-1208.750	-2136.750	-1148.045
	$\mathbf{AE}^{a,b}$	465	-1208.612	-2138.612	-1149.148
	CE	465	-1197.339	-2127.339	-1143.511
	E	466	-1142.951	-2074.951	-1117.489

**Supplementary Table 1.** Goodness-of-fit statistics for alternative biometric models for psychoneurometric and DSM-IV diagnostic symptom composite variables.

*Note*. Biometric parameters were estimated for bolded models; df = degrees of freedom; -2LL = -2 times log-likelihood; AIC = Akaike's Information Criterion ( $\chi^2 - 2df$ ); BIC (n adj) = sample size adjusted Bayesian Information Criterion. THT<sub>*PsyNeuro*</sub> and DIS<sub>*PsyNeuro*</sub> = threat sensitivity and weak response inhibition assessed using neurophysiological and self-report indicators; THT<sub>*PsyNeuro*</sub> x DIS <sub>*PsyNeuro*</sub> = interaction term computed as the product of mean-centered scores for the two traits. Symptom variables reflect aggregates of symptom counts for Fear, Distress, and Substance Use disorders.

<sup>*a*</sup> The difference in goodness-of-fit between the full model (ACE) and reduced model (AE) did not reach significance, indicating the more parsimonious AE model was selected.

<sup>b</sup> The difference in goodness-of-fit between the E model and the full (ACE) or reduced (AE) model was significant, indicating that inclusion of the A path (reflecting a contribution of additive genetic influences) resulted in improved model fit (p < .05).