S3 Table. Model parameters and variance components.

| Models | Model parameters |  |  |  |  |  |  |  | Standardized variance components |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | a | i | $\mu$ | m | f | ct | cs | e | $\mathrm{a}^{2}$ | $\mathrm{i}^{2}$ | $\mathrm{a}^{2} \mathrm{~m}(1+\mu)+\mathrm{a}^{2} \mathrm{f}(1+\mu)$ | $\mathrm{m}^{2}+\mathrm{f}^{2}+2 \mathrm{mf} \mu$ | $\mathrm{ct}^{2}$ | $\mathrm{cs}^{2}$ | $\mathrm{e}^{2}$ |
| Internalizing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\mathrm{cs}=0(\mathrm{C} 11)$ | . 50 | -. 10 | . 14 | . 01 | -. 02 | . 42 |  | . 75 | . 25 | . 01 | . 00 | . 00 | . 17 |  | . 57 |
| $\mathrm{cs}=0(\mathrm{C} 17)$ | . 63 | . 00 | . 15 | . 01 | -. 05 | . 16 |  | . 77 | . 39 | . 00 | -. 02 | . 00 | . 03 |  | . 59 |
| cs $=0(\mathrm{C} 23)$ | . 58 | -. 21 | . 18 | -. 01 | . 01 | -.30* |  | . 73 | . 33 | . 05 | . 00 | . 00 | . 09 |  | . 53 |
| $\mathrm{i}=0$ (C11) | -. 51 |  | . 14 | . 01 | -. 03 | . 42 | . 00 | . 75 | . 26 |  | -. 01 | . 00 | . 17 | . 00 | . 57 |
| $\mathrm{i}=0$ (C17) | -. 62 |  | . 15 | . 01 | -. 05 | . 16 | . 06 | . 77 | . 39 |  | -. 01 | . 00 | . 03 | . 00 | . 60 |
| $\mathrm{i}=0$ (C23) | -. 63 |  | . 18 | -. 03 | -. 01 | . 29 | . 00 | . 73 | . 40 |  | -. 02 | . 00 | . 09 | . 00 | . 54 |
| $\mathrm{cs}=0, \mathrm{o} . \mathrm{eq}$. | . 58 | -. 11 | . 15 | . 00 | -. 03 | -. 32 |  | . 75 | . 33 | . 01 | -. 01 | . 00 | . 10 |  | . 56 |
| $\mathrm{cs}=\mathrm{m}=\mathrm{f}=\mathrm{i}=0, \mathrm{o}$. eq. | -. 56 |  | . 15 |  |  | . 34 |  | . 75 | . 32 |  |  |  | . 12 |  | . 57 |
| Externalizing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\mathrm{cs}=0(\mathrm{C} 11)$ | . 48 | -.30* | . 05 | . 00 | -. 03 | -. 17 |  | . 81 | . 23 | . 09 | -. 01 | . 00 | . 03 |  | . 66 |
| $\mathrm{cs}=0(\mathrm{C} 17)$ | . 49 | -. 38 | . 17 | -. 01 | -. 04 | . 00 |  | . 79 | . 24 | . 15 | -. 01 | . 00 | . 00 |  | . 62 |
| cs $=0(\mathrm{C} 23)$ | . 48 | -. 35 | . 17 | . 01 | . 01 | -. 10 |  | . 80 | . 23 | . 12 | . 01 | . 00 | . 01 |  | . 63 |
| $\mathrm{i}=0$ ( C 11$)$ | -. 56 |  | . 05 | -. 04 | -. 07 | . 15 | . 00 | . 83 | . 31 |  | -. 03 | . 01 | . 02 | . 00 | . 69 |
| $\mathrm{i}=0$ (C17) | -. 62 |  | . 17 | -. 06 | -. 09 | . 00 | . 00 | . 81 | . 38 |  | -. 07 | . 01 | . 00 | . 00 | . 67 |
| $\mathrm{i}=0$ (C23) | -. 60 |  | . 17 | -. 05 | -. 04 | . 00 | . 00 | . 81 | . 37 |  | -. 04 | . 00 | . 00 | . 00 | . 66 |
| $\mathrm{cs}=0, \mathrm{o}$. eq. | . 50 | -. 35 | . 12 | -. 01 | -. 03 | . 00 |  | . 80 | . 25 | . 12 | -. 01 | . 00 | . 00 |  | . 64 |
| $\mathrm{cs}=\mathrm{m}=\mathrm{f}=\mathrm{ct}=0(\mathrm{C11})$ | . 46 | -. 36 | . 05 |  |  |  |  | . 81 | . 21 | . 13 |  |  |  |  | . 66 |
| $\mathrm{cs}=\mathrm{m}=\mathrm{f}=\mathrm{ct}=0$ (C17) | . 45 | -. 42 | . 17 |  |  |  |  | . 79 | . 20 | . 18 |  |  |  |  | . 62 |
| $\mathrm{cs}=\mathrm{m}=\mathrm{f}=\mathrm{ct}=0$ (C23) | . 50 | -. 34 | . 17 |  |  |  |  | . 80 | . 25 | . 11 |  |  |  |  | . 63 |

C, birth cohort; o. eq: all other parameters were set equal across cohorts; a, additive genetic effects; i, non-additive genetic effects; $\mu$, phenotypic spousal similarity; m, environmental transmission from mother to offspring; f, environmental transmission from father to offspring; ct, twin-specific shared environmental effects; cs, sibling-specific shared environmental effects; e, non-shared environmental effects (including measurement error); bold, $p<.001 ; * p<.01$

