Supplemental Material for Why does Perceived Parenting in Adolescence Predict Maladaptive Personality in Adulthood? Evidence for Substantial Genetic Mediation

**Table S1**. Descriptive statistics

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | | Monozygotic | | | | | | | |  |  | | Dizygotic | | | | | | | |
|  |  | Younger Sample | | | | |  | Enrichment Sample | | | |  | Younger Sample | | | | |  | Enrichment Sample | | | |
| Construct | Mean | | S.D. | | Range | N | Mean | | SD | Range | N | Mean | | S.D. | | Range | N | Mean | | SD | Range | N |
| Negative Affectivity | 48.13 | | 8.96 | | 34.20-76.85 | 489 | 51.84 | | 10.47 | 35.05-84.53 | 445 | 49.24 | | 10.17 | | 34.20-85.38 | 288 | 51.14 | | 10.18 | 35.05-89.64 | 283 |
| Psychoticism | 47.43 | | 8.54 | | 38.47-74.33 | 489 | 52.28 | | 10.89 | 38.47-82.68 | 445 | 48.43 | | 9.50 | | 38.47-76.80 | 288 | 52.50 | | 10.02 | 38.47-77.59 | 283 |
| Detachment | 48.88 | | 9.49 | | 36.96-78.82 | 489 | 50.33 | | 9.85 | 36.96-85.33 | 445 | 50.76 | | 10.63 | | 36.96-94.63 | 288 | 50.62 | | 10.34 | 36.96-86.26 | 284 |
| Disinhibition | 48.04 | | 8.55 | | 36.82-82.95 | 489 | 51.91 | | 11.57 | 36.82-93.98 | 445 | 49.25 | | 9.51 | | 36.82-89.97 | 288 | 51.20 | | 9.47 | 36.82-84.95 | 283 |
| Antagonism | 48.30 | | 8.91 | | 35.92-78.99 | 489 | 51.06 | | 10.82 | 35.92-94.65 | 445 | 49.39 | | 9.32 | | 35.92-80.29 | 288 | 51.88 | | 10.63 | 35.92-93.94 | 283 |
| **Adolescent Reported** |  | |  | |  |  |  | |  |  |  |  | |  | |  |  |  | |  |  |  |
| Conflict with Parents | 49.18 | | 9.42 | | 34.76-90.17 | 854 | 50.53 | | 10.15 | 34.76-88.63 | 553 | 49.84 | | 10.34 | | 34.76-80.94 | 462 | 51.44 | | 10.51 | 34.76-86.32 | 353 |
| Involvement with Parents | 49.33 | | 9.21 | | 33.11-82.30 | 856 | 49.93 | | 10.23 | 33.11-90.79 | 552 | 50.46 | | 10.38 | | 33.11-80.61 | 460 | 51.19 | | 10.85 | 33.11-93.33 | 352 |
| Parent’s regard for Child | 48.75 | | 9.02 | | 41.57-86.80 | 857 | 50.76 | | 10.25 | 41.57-87.88 | 553 | 50.13 | | 10.41 | | 41.57-89.94 | 464 | 51.73 | | 10.98 | 41.57-89.94 | 354 |
| Child’s regard for Parents | 48.91 | | 9.27 | | 36.90-81.30 | 857 | 50.14 | | 10.17 | 36.90-87.32 | 552 | 51.15 | | 10.04 | | 36.90-79.07 | 461 | 50.91 | | 11.09 | 36.90-87.32 | 353 |
| Structure | 48.95 | | 9.43 | | 36.74-86.55 | 856 | 49.99 | | 9.87 | 36.74-89.04 | 553 | 50.76 | | 10.45 | | 36.74-96.51 | 462 | 51.64 | | 10.69 | 36.74-99.00 | 354 |
| **Parent Reported** |  | |  | |  |  |  | |  |  |  |  | |  | |  |  |  | |  |  |  |
| Conflict with Mother |  | |  | |  |  | 48.92 | | 9.80 | 35.10-78.55 | 524 |  | |  | |  |  | 51.72 | | 10.10 | 35.10-78.55 | 330 |
| Maternal Involvement |  | |  | |  |  | 48.88 | | 9.45 | 36.80-83.78 | 523 |  | |  | |  |  | 51.79 | | 10.59 | 36.80-83.78 | 329 |
| Mother’s Regard for Child |  | |  | |  |  | 49.31 | | 8.64 | 45.59-86.82 | 524 |  | |  | |  |  | 51.09 | | 11.77 | 45.59-107.99 | 330 |
| Child’s regard for Mother |  | |  | |  |  | 49.41 | | 10.11 | 31.10-73.18 | 523 |  | |  | |  |  | 50.93 | | 9.75 | 31.10-83.70 | 330 |
| Structure (Maternal) |  | |  | |  |  | 49.36 | | 9.59 | 35.59-85.49 | 524 |  | |  | |  |  | 51.01 | | 10.56 | 35.59-91.72 | 330 |
| Conflict with Father |  | |  | |  |  | 49.46 | | 9.02 | 33.96-72.52 | 377 |  | |  | |  |  | 50.90 | | 11.40 | 33.96-86.98 | 227 |
| Paternal Involvement |  | |  | |  |  | 50.10 | | 10.08 | 33.61-77.56 | 376 |  | |  | |  |  | 49.83 | | 9.88 | 33.61-85.94 | 228 |
| Father’s regard for Child |  | |  | |  |  | 49.82 | | 9.73 | 44.13-88.08 | 377 |  | |  | |  |  | 50.29 | | 10.44 | 44.13-83.53 | 229 |
| Child’s regard for Father |  | |  | |  |  | 50.23 | | 9.62 | 32.12-79.75 | 376 |  | |  | |  |  | 49.62 | | 10.61 | 32.12-79.75 | 228 |
| Structure (Paternal) |  | |  | |  |  | 50.60 | | 10.01 | 34.86-82.44 | 377 |  | |  | |  |  | 49.01 | | 9.93 | 34.86-76.49 | 229 |

*Note*. Variables were T-scored. N represents the number of individuals. Parenting domains with the word “Mother” were reported by mothers. Domains with “Father” were reported by fathers. Domains with “Parent” or “Parental” were reported by the adolescents. Parentin- reported perceptions of parenting are only from the Enrichment Sample

**Table S2**. Intraclass Correlations

|  |  |  |
| --- | --- | --- |
|  | MZ | DZ |
| Negative Affectivity | 0.43 | 0.27 |
| Detachment | 0.41 | 0.18 |
| Antagonism | 0.38 | 0.21 |
| Disinhibition | 0.40 | 0.24 |
| Psychoticism | 0.45 | 0.28 |
| **Adolescent Reported** |  |  |
| Conflict with Parent | 0.54 | 0.38 |
| Involvement | 0.54 | 0.47 |
| Parents’ regard for the Child | 0.46 | 0.35 |
| Child’s regard for the Parents | 0.55 | 0.43 |
| Structure | 0.36 | 0.29 |
| **Parent Reported** |  |  |
| Conflict with Mother | 0.77 | 0.40 |
| Maternal Involvement | 0.79 | 0.59 |
| Mother’s Regard for the Child | 0.57 | 0.57 |
| Child’s regard for the Mother | 0.88 | 0.75 |
| Structure (Maternal) | 0.82 | 0.85 |
| Conflict with Father | 0.74 | 0.55 |
| Paternal Involvement | 0.83 | 0.64 |
| Father’s Regard for the Child | 0.69 | 0.71 |
| Child’s Regard for the Father | 0.84 | 0.62 |
| Structure (Paternal) | 0.86 | 0.83 |

Note. All correlations are conducted on residuals, in which Age and Sex effects were removed. MZ represents monozygotic twins, and DZ represents dizygotic twins. Parenting domains with the word “Mother” were reported by mothers. Domains with “Father” were reported by fathers. Domains with “Parent” or “Parental” were reported by the adolescents.

**Table S3**. ACE Estimates from Univariate Models

|  |  |  |  |
| --- | --- | --- | --- |
|  | A | C | E |
| Negative Affectivity | 37.88 [19.00, 49.31] | 3.76 [0.00, 20.20] | 54.28 [47.61, 59.66] |
| Detachment | 41.79 [35.03, 50.54] | 0.00 [0.00, 0.00] | 55.88 [49.36, 62.19] |
| Antagonism | 35.58 [29.00, 41.64] | 0.00 [0.00, 0.00] | 56.13 [50.65, 63.72] |
| Disinhibition | 29.87 [5.87, 41.88] | 6.58 [0.00, 26.93] | 57.58 [50.85, 65.50] |
| Psychoticism | 33.30 [14.37, 47.39] | 8.36 [0.00, 24.11] | 50.17 [44.53, 55.38] |
| **Adolescent Reported** |  |  |  |
| Conflict with Parent | 40.92 [24.86, 55.45] | 14.85 [1.38, 39.24] | 43.37 [39.47, 46.95] |
| Involvement | 25.87 [11.05, 40.16] | 30.88 [18.28, 42.89] | 43.26 [39.04, 47.76] |
| Parents’ regard for the Child | 34.66 [16.93 ,51.00] | 13.90 [0.00, 27.83] | 50.98[45.77, 56.21] |
| Child’s regard for the Parents | 31.84 [17.82, 46.17] | 25.10 [11.67, 37.73] | 42.88 [39.28, 46.66] |
| Structure | 22.52 [6.53, 38.14] | 15.45 [1.54, 29.46] | 60.59 [55.48, 65.63] |
| **Parent Reported** |  |  |  |
| Conflict with Mother | 73.80 [53.18, 86.63] | 3.47 [0.00, 25.77] | 22.91 [17.75, 27.07] |
| Maternal Involvement | 53.17 [26.07, 74.86] | 28.27 [9.73, 51.53] | 18.62 [15.01, 21.43] |
| Mother’s Regard for the Child | 39.93 [0.00, 72.87] | 28.27 [4.19, 59.40] | 32.84 [23.22, 42.30] |
| Child’s regard for the Mother | 25.19 [8.61, 37.12] | 61.37 [48.87, 76.01] | 12.16 [9.48, 14.15] |
| Structure (Maternal) | 2.61 [0.00, 11.78] | 77.84 [65.88, 89.69] | 17.51 [14.74, 19.87] |
| Conflict with Father | 61.24 [32.38, 81.08] | 17.50 [0.00, 43.00] | 22.00 [17.42, 26.97] |
| Paternal Involvement | 38.35 [16.45, 58.22] | 42.45 [22.26, 63.48] | 16.66 [12.68, 20.10] |
| Father’s Regard for the Child | 1.98 [0.00, 25.18] | 66.44 [49.31, 80.81] | 29.15 [22.13, 35.88] |
| Child’s Regard for the Father | 50.41 [14.36, 75.28] | 30.96 [10.28, 62.92] | 14.21 [10.56, 17.37] |
| Structure (Paternal) | 6.91 [0.00, 16.61] | 74.38 [60.99, 86.67] | 15.10 [12.11, 17.78] |

*Note.* A=additive genetics, C= shared environment, E=nonshared environment. A,C,and E represent a portion of the phenotype’s variance. 95% CI are given in brackets. Parenting domains with the word “Mother” were reported by mothers. Domains with “Father” were reported by fathers. Domains with “Parent” or “Parental” were reported by the adolescents.

**Table S4**. Model Fit for Univariate Models

|  |  |  |  |
| --- | --- | --- | --- |
| Model | minus2LL (df) | AIC | *p* |
| Negative Affectivity univariate |  |  |  |
| ACE | 10826.57 (1473) | 10834.57 |  |
| AE | 10826.68 (1474) | 10832.68 | 0.74 |
| Detachment univariate |  |  |  |
| ACE | 10866.19 (1474) | 10874.19 |  |
| AE | 10866.19 (1475) | 10872.19 | 1.00 |
| Antagonism Univariate |  |  |  |
| ACE | 10784.95 (1473) | 10792.95 |  |
| AE | 10746.95 (1474) | 10790.95 | 1.00 |
| Disinhibition univariate |  |  |  |
| ACE | 10818.06 (1473) | 10826.06 |  |
| AE | 10818.38 (1474) | 10824.38 | 0.58 |
| Psychoticism univariate |  |  |  |
| ACE | 10747.78 (1473) | 10755.78 |  |
| AE | 10747.38 (1474) | 10754.38 | 0.44 |
| **Adolescent Reported** |  |  |  |
| Conflict with Parents univariate |  |  |  |
| ACE | 15820.71 (2166) | 15828.71 |  |
| AE | 15823.80 (2167) | 15829.80 | 0.08 |
| Parental Involvement |  |  |  |
| ACE | 15787.75 (2164) | 15795.75 |  |
| AE | 15801.90 (2165) | 15807.90 | 0.0001 |
| Parents’ regard for Child univariate |  |  |  |
| ACE | 15958.61 (2172) | 15966.61 |  |
| AE | 15961.23 (2173) | 15967.23 | 0.11 |
| Child’s regard for Parent univariate |  |  |  |
| ACE | 15812.97 (2167) | 15820.97 |  |
| AE | 15822.10 (2168) | 15828.10 | 0.003 |
| Structure univariate |  |  |  |
| ACE | 16001.93 (2169) | 16009.93 |  |
| AE | 16004.88 (2170) | 16010.88 | 0.09 |
| **Parent Reported** |  |  |  |
|  |  |  |  |
| Conflict with Mother |  |  |  |
| ACE | 6041.99 (843) | 6049.99 |  |
| AE | 60.42.07 (844) | 6048.07 | 0.78 |
| Maternal Involvement |  |  |  |
| ACE | 5950.76 (841) | 5958.76 |  |
| AE | 5957.54 (842) | 5963.54 | 0.01 |
| Mother’s regard for the Child |  |  |  |
| ACE | 6112.87 (843) | 6120.87 |  |
| AE | 6119.72 (844) | 6125.72 | 0.009 |
| Child’s regard for the Mother |  |  |  |
| ACE | 5772.41 (842) | 5780.41 |  |
| AE | 5813.92 (843) | 5819.92 | 0.00 |
| Structure (Maternal) |  |  |  |
| ACE | 5822.64 (843) | 5830.64 |  |
| AE | 5902.40 (844) | 5908.40 | 0.00 |
| Conflict with Father |  |  |  |
| ACE | 4257.50 (595) | 4265.50 |  |
| AE | 4259.32 (596) | 4265.32 | 0.18 |
| Paternal Involvement |  |  |  |
| ACE | 4169.53 (595) | 4177.53 |  |
| AE | 4191.30 (596) | 4197.30 | 0.00 |
| Father’s regard for the Child |  |  |  |
| ACE | 4258.56 (597) | 4266.56 |  |
| AE | 4287.22 (598) | 4293.22 | 0.00 |
| Child’s regard for the Father |  |  |  |
| ACE | 4143.92 (595) | 4151.92 |  |
| AE | 4150.57 (596) | 4156.67 | 0.01 |
| Structure (Paternal) |  |  |  |
| ACE | 4099.57 (597) | 4107.57 |  |
| AE | 4149.24 (598) | 4155.24 | 0.00 |