# Comparison of Versions of Kinship Links

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October 24, 2013

**Outcome**: HeightZGenderAge;
**RelationshipPath**: Gen1Housemates [ID:1]; **Newer Links Version**: 81; **Older Links Version**: 80;

```
Newer Links: Slightly demotes priority of AlwaysLivedWithBothBioparents
Older Links: Slightly promotes priority of AlwaysLivedWithBothBioparents
R Groups specifically excluded: { 0, 0.0625 }
Drop pair if housemates are not confirmed in the same generation: FALSE
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## 1 Ace - Comparison of $R$ Variants

(See the final table for an explanation of the different $R$ variants.)

| $R$ Variant | $a^2_{new}$ | $c^2_{new}$ | $e^2_{new}$ | $N_{new}$ | $a^2_{old}$ | $c^2_{old}$ | $e^2_{old}$ | $N_{old}$ |
|---|---|---|---|---|---|---|---|---|
| R | .90 | .00 | .10 | 4119 | .90 | .00 | .10 | 4125 |
| RFull | .90 | .00 | .10 | 4212 | .89 | .00 | .11 | 4228 |
| RExplicit | .81 | .05 | .15 | 3728 | .81 | .05 | .15 | 3728 |
| RImplicit | .57 | .14 | .28 | 3534 | .84 | .00 | .16 | 3636 |
| RImplicitPass1 | .37 | .25 | .38 | 822 | .37 | .25 | .38 | 822 |
| RImplicit2004 | .75 | .09 | .16 | 2262 | .75 | .09 | .16 | 2262 |

Table 1: Comparison of R Variants (by rows) and of Links Versions (left vs right side).

## 2 Subgroups – R

| R | Included in SEM | $N_{Pairs}$ | $s^2_1$ | $s^2_2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.062 | FALSE | 37 | 0.79 | 0.98 | 0.38 | 0.43 | 0.6 | TRUE |
| 0.125 | TRUE | 63 | 0.95 | 0.95 | 0.09 | 0.10 | 0.9 | TRUE |
| 0.250 | TRUE | 267 | 0.99 | 1.13 | 0.27 | 0.25 | 1.0 | TRUE |
| 0.500 | TRUE | 3778 | 0.98 | 1.02 | 0.44 | 0.44 | 0.8 | TRUE |
| 1.000 | TRUE | 11 | 0.29 | 0.61 | 0.37 | 0.89 | 0.0 | TRUE |

Table 2: R – Newer Version of Links

| R | Included in SEM | $N_{Pairs}$ | $s^2_1$ | $s^2_2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.062 | FALSE | 37 | 0.79 | 0.98 | 0.38 | 0.43 | 0.6 | TRUE |
| 0.125 | TRUE | 63 | 0.95 | 0.95 | 0.09 | 0.10 | 0.9 | TRUE |
| 0.250 | TRUE | 257 | 1.01 | 1.12 | 0.27 | 0.26 | 1.1 | TRUE |
| 0.500 | TRUE | 3794 | 0.97 | 1.02 | 0.44 | 0.44 | 0.8 | TRUE |
| 1.000 | TRUE | 11 | 0.29 | 0.61 | 0.37 | 0.89 | 0.0 | TRUE |

Table 3: R – Older Version of Links

# 3 Subgroups – RFull

| RFull | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 512 | 0.94 | 0.82 | 0.21 | 0.24 | 0.7 | TRUE |
| 0.062 | FALSE | 41 | 0.77 | 0.96 | 0.32 | 0.37 | 0.6 | TRUE |
| 0.125 | TRUE | 88 | 0.91 | 0.95 | 0.15 | 0.16 | 0.8 | TRUE |
| 0.250 | TRUE | 279 | 0.97 | 1.12 | 0.25 | 0.24 | 1.0 | TRUE |
| 0.375 | TRUE | 13 | 1.61 | 1.01 | 0.48 | 0.38 | 1.4 | TRUE |
| 0.500 | TRUE | 3811 | 0.98 | 1.02 | 0.44 | 0.44 | 0.8 | TRUE |
| 0.750 | TRUE | 10 | 0.78 | 0.76 | 0.55 | 0.71 | 0.3 | TRUE |
| 1.000 | TRUE | 11 | 0.29 | 0.61 | 0.37 | 0.89 | 0.0 | TRUE |

Table 4: RFull – Newer Version of Links

| RFull | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 496 | 0.94 | 0.83 | 0.22 | 0.24 | 0.7 | TRUE |
| 0.062 | FALSE | 41 | 0.77 | 0.96 | 0.32 | 0.37 | 0.6 | TRUE |
| 0.125 | TRUE | 88 | 0.91 | 0.95 | 0.15 | 0.16 | 0.8 | TRUE |
| 0.250 | TRUE | 258 | 1.01 | 1.12 | 0.27 | 0.25 | 1.1 | TRUE |
| 0.375 | TRUE | 13 | 1.61 | 1.01 | 0.48 | 0.38 | 1.4 | TRUE |
| 0.500 | TRUE | 3848 | 0.97 | 1.02 | 0.44 | 0.44 | 0.8 | TRUE |
| 0.750 | TRUE | 10 | 0.78 | 0.76 | 0.55 | 0.71 | 0.3 | TRUE |
| 1.000 | TRUE | 11 | 0.29 | 0.61 | 0.37 | 0.89 | 0.0 | TRUE |

Table 5: RFull – Older Version of Links

# 4 Subgroups – RExplicit

| RExplicit | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 40 | 0.80 | 1.00 | 0.20 | 0.22 | 0.8 | TRUE |
| 0.062 | FALSE | 2 | 0.07 | 0.29 | 0.15 | 1.00 | 0.0 | FALSE |
| 0.250 | TRUE | 257 | 1.04 | 1.15 | 0.30 | 0.27 | 1.1 | TRUE |
| 0.375 | TRUE | 34 | 1.01 | 1.18 | 0.27 | 0.25 | 1.1 | TRUE |
| 0.500 | TRUE | 3437 | 0.97 | 1.02 | 0.44 | 0.45 | 0.8 | TRUE |

Table 6: RExplicit – Newer Version of Links

| RExplicit | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 40 | 0.80 | 1.00 | 0.20 | 0.22 | 0.8 | TRUE |
| 0.062 | FALSE | 2 | 0.07 | 0.29 | 0.15 | 1.00 | 0.0 | FALSE |
| 0.250 | TRUE | 257 | 1.04 | 1.15 | 0.30 | 0.27 | 1.1 | TRUE |
| 0.375 | TRUE | 34 | 1.01 | 1.18 | 0.27 | 0.25 | 1.1 | TRUE |
| 0.500 | TRUE | 3437 | 0.97 | 1.02 | 0.44 | 0.45 | 0.8 | TRUE |

Table 7: RExplicit – Older Version of Links

# 5 Subgroups – RImplicit

| RImplicit | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 178 | 0.97 | 0.78 | 0.23 | 0.26 | 0.7 | TRUE |
| 0.250 | TRUE | 157 | 0.83 | 0.88 | 0.21 | 0.25 | 0.7 | TRUE |
| 0.500 | TRUE | 3377 | 0.98 | 0.98 | 0.42 | 0.43 | 0.8 | TRUE |

Table 8: RImplicit – Newer Version of Links

| RImplicit | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 76 | 0.93 | 0.69 | 0.19 | 0.24 | 0.6 | TRUE |
| 0.250 | TRUE | 33 | 0.96 | 0.92 | 0.20 | 0.21 | 0.8 | TRUE |
| 0.500 | TRUE | 3603 | 0.97 | 0.98 | 0.41 | 0.42 | 0.8 | TRUE |

Table 9: RImplicit – Older Version of Links

# 6 Subgroups – RImplicitPass1

| RImplicitPass1 | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 1 | | | | | | |
| 0.500 | TRUE | 822 | 0.94 | 1.01 | 0.42 | 0.44 | 0.8 | TRUE |

Table 10: RImplicitPass1 – Newer Version of Links

| RImplicitPass1 | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.000 | FALSE | 1 | | | | | | |
| 0.500 | TRUE | 822 | 0.94 | 1.01 | 0.42 | 0.44 | 0.8 | TRUE |

Table 11: RImplicitPass1 – Older Version of Links

# 7 Subgroups – RImplicit2004

| RImplicit2004 | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.125 | TRUE | 70 | 0.78 | 0.94 | 0.03 | 0.04 | 0.7 | TRUE |
| 0.250 | TRUE | 42 | 0.77 | 0.98 | 0.22 | 0.25 | 0.7 | TRUE |
| 0.375 | TRUE | 297 | 0.96 | 1.22 | 0.51 | 0.47 | 0.9 | TRUE |
| 0.500 | TRUE | 1823 | 0.96 | 0.96 | 0.44 | 0.45 | 0.7 | TRUE |
| 0.750 | TRUE | 30 | 0.65 | 0.90 | 0.46 | 0.60 | 0.4 | TRUE |

Table 12: RImplicit2004 – Newer Version of Links

| RImplicit2004 | Included in SEM | $N_{Pairs}$ | $s_1^2$ | $s_2^2$ | $s_{1,2}$ | $r$ | Determinant | PosDefinite |
|---|---|---|---|---|---|---|---|---|
| 0.125 | TRUE | 70 | 0.78 | 0.94 | 0.03 | 0.04 | 0.7 | TRUE |
| 0.250 | TRUE | 42 | 0.77 | 0.98 | 0.22 | 0.25 | 0.7 | TRUE |
| 0.375 | TRUE | 297 | 0.96 | 1.22 | 0.51 | 0.47 | 0.9 | TRUE |
| 0.500 | TRUE | 1823 | 0.96 | 0.96 | 0.44 | 0.45 | 0.7 | TRUE |
| 0.750 | TRUE | 30 | 0.65 | 0.90 | 0.46 | 0.60 | 0.4 | TRUE |

Table 13: RImplicit2004 – Older Version of Links

# 8 Explanation of $R$ Variants

| **Variant** | **Explanation** |
|---|---|
| $R$ | We recommend researchers typical use this version. |
| $R_{Full}$ | The most complete version we have; doesn't exclude groups like $R$=0. |
| $R_{Pass1}$ | Supposed to be fooled only by errors in the subject's/mother's knowledge |
| $RImplicit$ | Uses only implicit items |
| $RImplicit_{Pass1}$ | Uses only implicit items & supposed to be fooled only by knowledge errors |
| $RImplicit_{Mother}$ | Uses only mother's implicit items (exists only for Gen2) |
| $RImplicit_{Subject}$ | Uses only subject's implicit items |
| $RImplicit_{2004}$ | The state of the links in 2004. Rodgers & Rowe for Gen1; Rodgers, Johnson & Bard for Gen2 |
| $RExplicit$ | Uses only explicit items |
| $RExplicit_{Pass1}$ | Uses only explicit items & supposed to be fooled only by knowledge errors |