#### Comparison of Versions of Kinship Links Joe Rodger's BG Team

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Outcome: HeightZGender;

RelationshipPath: Gen2Siblings [ID:2]; Newer Links Version: 84; Older Links Version: 84;

Newer Links: Adds Gen1 back Older Links: Adds Gen1 back

R Groups specifically excluded: { 0, 0.125, 0.0625 }

Drop pair if housemates are not confirmed in the same generation: FALSE

#### 1 Ace - Comparison of R Variants

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

R Variant	$a_{new}^2$	$c_{new}^2$	$e_{new}^2$	$N_{new}$	$a_{old}^2$	$c_{old}^2$	$e_{old}^2$	$N_{old}$
R	.80	.03	.17	5884	.80	.03	.17	5884
RFull	.80	.03	.17	5884	.80	.03	.17	5884
RPass1	.80	.03	.17	5875	.80	.03	.17	5875
RImplicit	.81	.02	.17	5618	.81	.02	.17	5618
RExplicit	.75	.04	.20	5845	.75	.04	.20	5845
RExplicitPass1	.73	.05	.21	5820	.73	.05	.21	5820
RImplicit2004	.83	.01	.15	5844	.83	.01	.15	5844

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

#### ${\bf 2}\quad Subgroups-R$

$\overline{R}$	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_1^2$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1862	-0.04	-0.07	1.03	1.04	0.27	0.26	1.0	TRUE
0.375	TRUE	46	0.25	-0.08	1.10	0.94	0.44	0.43	0.8	TRUE
0.500	TRUE	3960	0.02	-0.02	0.97	0.96	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 2: R – Newer Version of Links

$\overline{R}$	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1862	-0.04	-0.07	1.03	1.04	0.27	0.26	1.0	TRUE
0.375	TRUE	46	0.25	-0.08	1.10	0.94	0.44	0.43	0.8	TRUE
0.500	TRUE	3960	0.02	-0.02	0.97	0.96	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 3: R – Older Version of Links

# 3 Subgroups – RFull

RFull	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1862	-0.04	-0.07	1.03	1.04	0.27	0.26	1.0	TRUE
0.375	TRUE	46	0.25	-0.08	1.10	0.94	0.44	0.43	0.8	TRUE
0.500	TRUE	3960	0.02	-0.02	0.97	0.96	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 4: RFull – Newer Version of Links

RFull	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1862	-0.04	-0.07	1.03	1.04	0.27	0.26	1.0	TRUE
0.375	TRUE	46	0.25	-0.08	1.10	0.94	0.44	0.43	0.8	TRUE
0.500	TRUE	3960	0.02	-0.02	0.97	0.96	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 5: RFull – Older Version of Links

# 4 Subgroups – RPass1

RPass1	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1858	-0.04	-0.07	1.03	1.05	0.27	0.26	1.0	TRUE
0.375	TRUE	45	0.25	-0.08	1.12	0.96	0.45	0.43	0.9	TRUE
0.500	TRUE	3956	0.02	-0.02	0.97	0.96	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 6: RPass1 - Newer Version of Links

RPass1	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1858	-0.04	-0.07	1.03	1.05	0.27	0.26	1.0	TRUE
0.375	TRUE	45	0.25	-0.08	1.12	0.96	0.45	0.43	0.9	TRUE
0.500	TRUE	3956	0.02	-0.02	0.97	0.96	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 7: RPass1 – Older Version of Links

## ${\bf 5}\quad {\bf Subgroups-RImplicit}$

RImplicit	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1743	-0.04	-0.09	1.04	1.04	0.27	0.26	1.0	TRUE
0.500	TRUE	3859	0.02	-0.02	0.97	0.97	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 8: RImplicit – Newer Version of Links

RImplicit	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1743	-0.04	-0.09	1.04	1.04	0.27	0.26	1.0	TRUE
0.500	TRUE	3859	0.02	-0.02	0.97	0.97	0.39	0.41	0.8	TRUE
0.750	FALSE	0								FALSE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 9: RImplicit – Older Version of Links

## ${\bf 6}\quad {\bf Subgroups-RExplicit}$

RExplicit	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1767	-0.05	-0.08	1.04	1.04	0.29	0.28	1.0	TRUE
0.375	TRUE	180	0.09	0.02	0.91	1.14	0.14	0.14	1.0	TRUE
0.500	TRUE	3882	0.02	-0.03	0.97	0.95	0.39	0.41	0.8	TRUE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 10: R Explicit – Newer Version of Links

RExplicit	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1767	-0.05	-0.08	1.04	1.04	0.29	0.28	1.0	TRUE
0.375	TRUE	180	0.09	0.02	0.91	1.14	0.14	0.14	1.0	TRUE
0.500	TRUE	3882	0.02	-0.03	0.97	0.95	0.39	0.41	0.8	TRUE
1.000	TRUE	16	-0.09	-0.16	0.97	1.02	0.92	0.93	0.1	TRUE

Table 11: RExplicit – Older Version of Links

## ${\bf 7}\quad {\bf Subgroups-RExplicitPass 1}$

RExplicitPass1	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1765	-0.05	-0.08	1.04	1.04	0.29	0.28	1.0	TRUE
0.375	TRUE	180	0.09	0.02	0.91	1.14	0.14	0.14	1.0	TRUE
0.500	TRUE	3860	0.02	-0.03	0.97	0.95	0.39	0.40	0.8	TRUE
1.000	TRUE	15	-0.10	-0.19	1.03	1.09	0.98	0.92	0.2	TRUE

Table 12: RExplicitPass1 – Newer Version of Links

RExplicitPass1	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1765	-0.05	-0.08	1.04	1.04	0.29	0.28	1.0	TRUE
0.375	TRUE	180	0.09	0.02	0.91	1.14	0.14	0.14	1.0	TRUE
0.500	TRUE	3860	0.02	-0.03	0.97	0.95	0.39	0.40	0.8	TRUE
1.000	TRUE	15	-0.10	-0.19	1.03	1.09	0.98	0.92	0.2	TRUE

Table 13: RExplicitPass1 – Older Version of Links

### ${\bf 8}\quad Subgroups-RImplicit 2004$

RImplicit2004	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_1^2$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1466	-0.05	-0.08	1.00	1.03	0.26	0.25	1.0	TRUE
0.375	TRUE	962	-0.05	-0.06	1.00	0.92	0.30	0.31	0.8	TRUE
0.500	TRUE	3401	0.04	-0.01	0.97	0.98	0.40	0.41	0.8	TRUE
1.000	TRUE	15	-0.03	-0.14	0.99	1.09	0.96	0.93	0.1	TRUE

Table 14: R<br/>Implicit<br/>2004 – Newer Version of Links  $\,$ 

RImplicit2004	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	1466	-0.05	-0.08	1.00	1.03	0.26	0.25	1.0	TRUE
0.375	TRUE	962	-0.05	-0.06	1.00	0.92	0.30	0.31	0.8	TRUE
0.500	TRUE	3401	0.04	-0.01	0.97	0.98	0.40	0.41	0.8	TRUE
1.000	TRUE	15	-0.03	-0.14	0.99	1.09	0.96	0.93	0.1	TRUE

Table 15: R<br/>Implicit<br/>2004 – Older Version of Links

### 9 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			