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

May 26, 2013

Outcome: HeightZGenderAge;

RelationshipPath: Gen1Housemates [ID:1]; Newer Links Version: 63; Older Links Version: 62;

Newer Links: Interpolates RFull

Older Links: Interpolates Implicit (but not really - I caught a mistake later)

R Groups specifically excluded: { 0 }

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

## Warning: the standard deviation is zero
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#### 1 Ace - Comparison of R Variants

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

R Variant	$a_{new}^2$	$c_{new}^2$	$e_{new}^2$	$N_{new}$	$a_{old}^2$	$c_{old}^2$	$e_{old}^2$	$N_{old}$
R	.80	.04	.16	8252	.90	.00	.10	4058
RFull	.84	.03	.14	8308	.90	.00	.10	4068
RExplicit	.81	.05	.15	7456	.81	.05	.15	3728
RImplicit	.88	.00	.12	4862	.88	.00	.12	2431
RImplicitPass1	.37	.25	.38	1644	.37	.25	.38	822
RImplicit2004	.75	.09	.16	4524	.75	.09	.16	2262

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

### 2 Subgroups – R

$\overline{R}$	Included in SEM	$N_{Pairs}$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.131	TRUE	60	1.01	0.83	0.19	0.21	0.8	TRUE
0.250	TRUE	522	1.03	1.14	0.29	0.27	1.1	TRUE
0.500	TRUE	7670	0.97	1.01	0.44	0.44	0.8	TRUE

Table 2: R – Newer Version of Links

$\overline{R}$	Included in SEM	$N_{Pairs}$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	250	1.02	1.12	0.27	0.25	1.1	TRUE
0.500	TRUE	3709	0.97	1.02	0.45	0.45	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	82	0.78	1.01	0.22	0.24	0.7	TRUE
0.131	TRUE	60	1.01	0.83	0.19	0.21	0.8	TRUE
0.250	TRUE	522	1.03	1.14	0.29	0.27	1.1	TRUE
0.375	TRUE	56	1.13	1.24	0.23	0.19	1.4	TRUE
0.500	TRUE	7670	0.97	1.01	0.44	0.44	0.8	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	472	0.92	0.83	0.22	0.25	0.7	TRUE
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	250	1.02	1.12	0.27	0.25	1.1	TRUE
0.500	TRUE	3709	0.97	1.02	0.45	0.45	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

### ${\bf 4}\quad Subgroups-RExplicit$

RExplicit	Included in SEM	$N_{Pairs}$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.000	FALSE	80	0.79	0.99	0.20	0.22	0.7	TRUE
0.131	FALSE	4	0.05	0.20	0.10	1.00	0.0	FALSE
0.250	TRUE	514	1.04	1.15	0.30	0.27	1.1	TRUE
0.375	TRUE	68	1.00	1.16	0.27	0.25	1.1	TRUE
0.500	TRUE	6874	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
0.131	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	2	0.00	0.00	0.00		0.0	FALSE
0.250	TRUE	24	1.06	0.58	-0.02	-0.03	0.6	TRUE
0.500	TRUE	4838	0.97	0.98	0.43	0.44	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	1						
0.250	TRUE	12	1.11	0.60	-0.02	-0.03	0.7	TRUE
0.500	TRUE	2419	0.97	0.98	0.43	0.44	0.8	TRUE

Table 9: RImplicit – Older Version of Links

### ${\bf 6}\quad {\bf Subgroups-RImplicitPass 1}$

RImplicitPass1	Included in SEM	$N_{Pairs}$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.000	FALSE	2	0.00	0.00	0.00		0.0	FALSE
0.500	TRUE	1644	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

## $7 \quad Subgroups - RImplicit 2004$

RImplicit2004	Included in SEM	$N_{Pairs}$	$s_{1}^{2}$	$s_2^2$	$s_{1,2}$	r	Determinant	PosDefinite
0.125	TRUE	140	0.77	0.93	0.03	0.04	0.7	TRUE
0.250	TRUE	84	0.76	0.97	0.21	0.25	0.7	TRUE
0.375	TRUE	594	0.95	1.21	0.50	0.47	0.9	TRUE
0.500	TRUE	3646	0.95	0.96	0.44	0.45	0.7	TRUE
0.750	TRUE	60	0.64	0.89	0.45	0.60	0.4	TRUE

Table 12: R<br/>Implicit<br/>2004 – 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: RImplicit 2004 – 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		