

# Comparison of Versions of Kinship Links

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**Outcome:** HeightZGenderAge;

**RelationshipPath:** Gen1Housemates [ID:1]; **Newer Links Version:** 73; **Older Links Version:** 69;

Newer Links: Uses parents' birthyear at 0, 5, 15, +; disconfirms  
Older Links: Uses birth state of Parent of Gen1 -awful ROC performance vs  
explicit, but good vs roster  
R Groups specifically excluded: { 0, 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	.90	.00	.10	4064	.90	.00	.10	4059
RFull	.90	.00	.10	4095	.90	.00	.10	4095
RExplicit	.81	.05	.15	3728	.81	.05	.15	3728
RImplicit	.87	.00	.13	2436	.87	.00	.13	2434
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	$N_{Pairs}$	$s_1^2$	$s_2^2$	$s_{1,2}$	$r$	Determinant	PosDefinite
0.062	FALSE	63	0.74	0.97	0.25	0.30	0.7	TRUE
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	259	1.00	1.13	0.26	0.25	1.1	TRUE
0.500	TRUE	3706	0.98	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 2: R – Newer Version of Links

R	Included in SEM	$N_{Pairs}$	$s_1^2$	$s_2^2$	$s_{1,2}$	$r$	Determinant	PosDefinite
0.062	FALSE	55	0.70	0.98	0.18	0.22	0.7	TRUE
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	254	1.02	1.10	0.27	0.25	1.1	TRUE
0.500	TRUE	3706	0.98	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	515	0.94	0.82	0.21	0.24	0.7	TRUE
0.062	FALSE	63	0.74	0.97	0.25	0.30	0.7	TRUE
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	259	1.00	1.13	0.26	0.25	1.1	TRUE
0.375	TRUE	21	1.40	1.07	0.30	0.24	1.4	TRUE
0.500	TRUE	3706	0.98	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 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	511	0.94	0.83	0.21	0.24	0.7	TRUE
0.062	FALSE	55	0.70	0.98	0.18	0.22	0.7	TRUE
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	254	1.02	1.10	0.27	0.25	1.1	TRUE
0.375	TRUE	26	1.19	1.31	0.20	0.16	1.5	TRUE
0.500	TRUE	3706	0.98	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

### 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	191	0.98	0.79	0.25	0.28	0.7	TRUE
0.250	TRUE	17	1.00	0.49	0.03	0.04	0.5	TRUE
0.500	TRUE	2419	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	160	1.00	0.78	0.25	0.28	0.7	TRUE
0.250	TRUE	15	1.14	0.54	0.03	0.03	0.6	TRUE
0.500	TRUE	2419	0.97	0.98	0.43	0.44	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
$R_{Implicit}$	Uses only implicit items
$R_{Implicit_{Pass1}}$	Uses only implicit items & supposed to be fooled only by knowledge errors
$R_{Implicit_{Mother}}$	Uses only mother's implicit items (exists only for Gen2)
$R_{Implicit_{Subject}}$	Uses only subject's implicit items
$R_{Implicit_{2004}}$	The state of the links in 2004. Rodgers & Rowe for Gen1; Rodgers, Johnson & Bard for Gen2
$R_{Explicit}$	Uses only explicit items
$R_{Explicit_{Pass1}}$	Uses only explicit items & supposed to be fooled only by knowledge errors