Comparison of Versions of Kinship Links

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## Loading required package:  Matrix
## Loading required package:  lattice
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Outcome: HeightZGenderAge;
RelationshipPath: Gen1Housemates [ID:1]; **Newer Links Version**: 55; **Older Links Version**: 54;

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Newer Links: Gen1 Explicits independently considers mom & dad before combining
Older Links: Adds Gen1 2010 Explicits
R Groups specifically excluded: { 0 }
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	3744	.90	.00	.10	3753
RFull	.90	.00	.10	3805	.91	.00	.09	3808
RExplicit	.80	.05	.15	3724	.79	.05	.16	3727
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
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.131		1						
0.250	TRUE	239	1.01	1.13	0.26	0.24	1.1	TRUE
0.500	TRUE	3406	0.97	1.02	0.44	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^2_1	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	240	1.01	1.13	0.26	0.24	1.1	TRUE
0.500	TRUE	3414	0.97	1.02	0.44	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	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
0.131		1						
0.250	TRUE	239	1.01	1.13	0.26	0.24	1.1	TRUE
0.375	TRUE	51	0.96	1.12	0.41	0.39	0.9	TRUE
0.500	TRUE	3406	0.97	1.02	0.44	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	443	0.93	0.82	0.23	0.26	0.7	TRUE
0.125	TRUE	88	0.91	0.95	0.15	0.16	0.8	TRUE
0.250	TRUE	240	1.01	1.13	0.26	0.24	1.1	TRUE
0.375	TRUE	45	1.00	1.18	0.48	0.44	1.0	TRUE
0.500	TRUE	3414	0.97	1.02	0.44	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	34	0.68	0.91	0.18	0.23	0.6	TRUE
0.131		1						
0.250	TRUE	246	1.03	1.17	0.29	0.26	1.1	TRUE
0.375	TRUE	51	0.96	1.12	0.41	0.39	0.9	TRUE
0.500	TRUE	3427	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
0.250	TRUE	247	1.03	1.17	0.29	0.26	1.1	TRUE
0.375	TRUE	45	1.00	1.18	0.48	0.44	1.0	TRUE
0.500	TRUE	3435	0.97	1.02	0.44	0.45	0.8	TRUE

Table 7: RExplicit – Older Version of Links

5 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 8: 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 9: RImplicit2004 – Older Version of Links

6 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