Comparison of Versions of Kinship Links

Joe Rodger's BG Team

December 9, 2012

```
## Warning:  NaNs produced
```

Outcome: HeightZGenderAge;
RelationshipPath: Gen1Housemates [ID:1]; **Newer Links Version**: 52; **Older Links Version**: 51;

```
Newer Links: After chaning 'R' to 'RFull'
Older Links: Uses Gen1 geocode differences
R Groups specifically excluded: { 0, 0.375, 0.75 }
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^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	3729	.90	.00	.10	3729
RExplicit	.80	.04	.15	3657	.80	.04	.15	3657
RImplicit2004	.91	.00	.09	1935	.91	.00	.09	1935

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
0.250	TRUE	238	1.01	1.14	0.26	0.24	1.1	TRUE
0.375	FALSE	45	1.00	1.18	0.48	0.44	1.0	TRUE
0.500	TRUE	3392	0.97	1.02	0.44	0.44	0.8	TRUE
0.750	FALSE	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 2: R – Newer Version of Links

R	Included in SEM	N_{Pairs}	s^2_1	s^2_2	$s_{1,2}$	r	Determinant	PosDefinite
0.000	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	238	1.01	1.14	0.26	0.24	1.1	TRUE
0.375	FALSE	45	1.00	1.18	0.48	0.44	1.0	TRUE
0.500	TRUE	3392	0.97	1.02	0.44	0.44	0.8	TRUE
0.750	FALSE	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 3: R – Older Version of Links

3 Subgroups – RExplicit

RExplicit	Included in SEM	N_{Pairs}	s_1^2	s_2^2	$s_{1,2}$	r	Determinant	PosDefinite
0.250	TRUE	245	1.03	1.18	0.29	0.26	1.1	TRUE
0.375	FALSE	45	1.00	1.18	0.48	0.44	1.0	TRUE
0.500	TRUE	3412	0.96	1.01	0.44	0.44	0.8	TRUE

Table 4: 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	245	1.03	1.18	0.29	0.26	1.1	TRUE
0.375	FALSE	45	1.00	1.18	0.48	0.44	1.0	TRUE
0.500	TRUE	3412	0.96	1.01	0.44	0.44	0.8	TRUE

Table 5: RExplicit – Older Version of Links

4 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	FALSE	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	FALSE	30	0.65	0.90	0.46	0.60	0.4	TRUE

Table 6: 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	FALSE	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	FALSE	30	0.65	0.90	0.46	0.60	0.4	TRUE

Table 7: RImplicit2004 – Older Version of Links

5 Explanation of R Variants

Variant	**Explanation**
R	We recommend researchers typical use this version.
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