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

November 19, 2013

Outcome: IQZGenderAge;

RelationshipPath: Gen1Housemates [ID:1]; Newer Links Version: 84; Older Links Version: 83;

Newer Links: Adds Gen1 back Older Links: Reverts to V82

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	.32	.47	.21	3910	.32	.47	.21	3910
RFull	.28	.49	.23	3980	.28	.49	.23	3980
RExplicit	.21	.53	.26	3589	.21	.53	.26	3589
RImplicit	.00	.64	.36	3403	.00	.64	.36	3403
RImplicit2004	.05	.62	.33	2104	.05	.62	.33	2104

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

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

R	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.062	FALSE	36	-0.24	-0.16	0.48	0.82	0.23	0.37	0.3	TRUE
0.125	FALSE	60	-0.50	-0.67	0.91	0.51	0.40	0.58	0.3	TRUE
0.250	TRUE	264	-0.64	-0.56	0.73	0.62	0.29	0.42	0.4	TRUE
0.500	TRUE	3636	-0.11	-0.09	1.04	0.98	0.64	0.63	0.6	TRUE
1.000	TRUE	10	0.60	0.55	1.33	1.53	1.32	0.92	0.3	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
0.062	FALSE	36	-0.24	-0.16	0.48	0.82	0.23	0.37	0.3	TRUE
0.125	FALSE	60	-0.50	-0.67	0.91	0.51	0.40	0.58	0.3	TRUE
0.250	TRUE	264	-0.64	-0.56	0.73	0.62	0.29	0.42	0.4	TRUE
0.500	TRUE	3636	-0.11	-0.09	1.04	0.98	0.64	0.63	0.6	TRUE
1.000	TRUE	10	0.60	0.55	1.33	1.53	1.32	0.92	0.3	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
0.000	FALSE	473	0.10	0.05	0.97	0.90	0.55	0.59	0.6	TRUE
0.062	FALSE	40	-0.18	-0.15	0.53	0.79	0.25	0.38	0.4	TRUE
0.125	FALSE	85	-0.61	-0.78	0.84	0.57	0.39	0.57	0.3	TRUE
0.250	TRUE	276	-0.59	-0.51	0.76	0.66	0.33	0.46	0.4	TRUE
0.375	TRUE	14	-0.36	-0.55	0.26	0.56	0.08	0.22	0.1	TRUE
0.500	TRUE	3669	-0.11	-0.09	1.04	0.98	0.63	0.63	0.6	TRUE
0.750	TRUE	11	0.16	-0.02	0.42	0.43	0.18	0.41	0.2	TRUE
1.000	TRUE	10	0.60	0.55	1.33	1.53	1.32	0.92	0.3	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
0.000	FALSE	473	0.10	0.05	0.97	0.90	0.55	0.59	0.6	TRUE
0.062	FALSE	40	-0.18	-0.15	0.53	0.79	0.25	0.38	0.4	TRUE
0.125	FALSE	85	-0.61	-0.78	0.84	0.57	0.39	0.57	0.3	TRUE
0.250	TRUE	276	-0.59	-0.51	0.76	0.66	0.33	0.46	0.4	TRUE
0.375	TRUE	14	-0.36	-0.55	0.26	0.56	0.08	0.22	0.1	TRUE
0.500	TRUE	3669	-0.11	-0.09	1.04	0.98	0.63	0.63	0.6	TRUE
0.750	TRUE	11	0.16	-0.02	0.42	0.43	0.18	0.41	0.2	TRUE
1.000	TRUE	10	0.60	0.55	1.33	1.53	1.32	0.92	0.3	TRUE

Table 5: RFull – Older Version of Links

## 4 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
0.000	FALSE	37	0.31	0.42	0.96	1.08	0.48	0.47	0.8	TRUE
0.062	FALSE	2	-1.41	-1.01	0.01	2.73	-0.12	-1.00	0.0	FALSE
0.250	TRUE	252	-0.64	-0.58	0.70	0.62	0.25	0.38	0.4	TRUE
0.375	TRUE	33	-0.45	-0.54	0.28	0.59	0.10	0.24	0.2	TRUE
0.500	TRUE	3304	-0.10	-0.08	1.06	0.98	0.65	0.64	0.6	TRUE

Table 6: RExplicit – 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
0.000	FALSE	37	0.31	0.42	0.96	1.08	0.48	0.47	0.8	TRUE
0.062	FALSE	2	-1.41	-1.01	0.01	2.73	-0.12	-1.00	0.0	FALSE
0.250	TRUE	252	-0.64	-0.58	0.70	0.62	0.25	0.38	0.4	TRUE
0.375	TRUE	33	-0.45	-0.54	0.28	0.59	0.10	0.24	0.2	TRUE
0.500	TRUE	3304	-0.10	-0.08	1.06	0.98	0.65	0.64	0.6	TRUE

Table 7: RExplicit – 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
0.000	FALSE	159	-0.12	-0.15	1.03	0.97	0.63	0.63	0.6	TRUE
0.250	TRUE	154	-0.13	-0.10	0.96	0.77	0.51	0.59	0.5	TRUE
0.500	TRUE	3249	-0.05	-0.04	1.06	1.02	0.66	0.64	0.6	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
0.000	FALSE	159	-0.12	-0.15	1.03	0.97	0.63	0.63	0.6	TRUE
0.250	TRUE	154	-0.13	-0.10	0.96	0.77	0.51	0.59	0.5	TRUE
0.500	TRUE	3249	-0.05	-0.04	1.06	1.02	0.66	0.64	0.6	TRUE

Table 9: RImplicit – Older Version of Links

## ${\bf 6}\quad Subgroups-RImplicit 2004\\$

RImplicit2004	Included in SEM	$N_{Pairs}$	$\bar{x}_1$	$\bar{x}_2$	$s_{1}^{2}$	$s_{2}^{2}$	$s_{1,2}$	r	Determinant	PosDefinite
0.125	FALSE	68	-0.32	-0.36	0.98	0.80	0.58	0.66	0.4	TRUE
0.250	TRUE	42	0.03	-0.03	0.56	1.21	0.46	0.55	0.5	TRUE
0.375	TRUE	286	-0.16	-0.11	0.71	0.79	0.43	0.57	0.4	TRUE
0.500	TRUE	1747	0.09	0.10	1.07	1.05	0.69	0.65	0.6	TRUE
0.750	TRUE	29	0.33	0.01	1.08	0.75	0.64	0.71	0.4	TRUE

Table 10: RImplicit2004 – 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
0.125	FALSE	68	-0.32	-0.36	0.98	0.80	0.58	0.66	0.4	TRUE
0.250	TRUE	42	0.03	-0.03	0.56	1.21	0.46	0.55	0.5	TRUE
0.375	TRUE	286	-0.16	-0.11	0.71	0.79	0.43	0.57	0.4	TRUE
0.500	TRUE	1747	0.09	0.10	1.07	1.05	0.69	0.65	0.6	TRUE
0.750	TRUE	29	0.33	0.01	1.08	0.75	0.64	0.71	0.4	TRUE

Table 11: RImplicit2004 – Older Version of Links

## 7 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