Heritability by Subgroup

## Joe Rodger's BG Team

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This uses OpenMX, based off the example that David emailed Dec 16, 2011. The dataset was reduced to single entered.

Implicit ambiguous sibs were assigned R=0.375. All height measures are from 19-25 years of age, standardized by gender (Kelly restandardized early December 2011). Counts reflect the double entry.

Subgroup	N	h^2	c^2	e^2	$\bar{X}$	σ	σ^3	$N_{.25}$	$N_{.375}$	$N_{.5}$	$N_{.75}$	N_{Mz}	$r_{.25}$	$r_{.375}$	$r_{.5}$	r_{Mz}
Total	7098	0.67	-0.03	0.37	27.26	6.31	1.31	2206	0	4864	0	28	0.14		0.29	0.95
FF	1770	1.20	-0.18	-0.02	27.91	7.15	1.08	574	0	1186	0	10	0.12		0.42	0.97
MF	3532	0.38	0.04	0.58	27.10	6.26	1.33	1110	0	2422	0	0	0.13		0.23	
MM	1796	0.82	-0.13	0.32	26.95	5.43	1.53	522	0	1256	0	18	0.09		0.26	0.93
Hispanic	1778	0.22	0.10	0.68	27.35	6.11	1.28	404	0	1372	0	2	0.16		0.21	-1.00
Black	2898	0.65	-0.04	0.39	28.00	6.69	1.33	1380	0	1508	0	10	0.12		0.28	0.89
NBNH	2422	0.99	-0.14	0.15	26.32	5.86	1.24	422	0	1984	0	16	0.12		0.35	0.97
Hisp FF	410	0.00	0.24	0.76	27.57	6.54	0.99	108	0	302	0	0	0.24		0.24	
Hisp MF	852	0.41	0.04	0.55	27.26	6.10	1.16	196	0	656	0	0	0.14		0.25	
Hisp MM	516	0.76	-0.25	0.48	27.33	5.77	1.81	100	0	414	0	2	-0.03		0.12	-1.00
Black FF	778	1.27	-0.22	-0.05	29.34	7.69	1.02	382	0	392	0	4	0.09		0.41	0.96
Black MF	1450	0.20	0.05	0.75	27.68	6.50	1.39	690	0	760	0	0	0.10		0.15	
Black MM	670	0.79	-0.09	0.30	27.15	5.52	1.50	308	0	356	0	6	0.11		0.31	-0.23
NBNH FF	582	2.15	-0.62	-0.53	26.23	6.38	1.08	84	0	492	0	6	-0.20		0.49	0.98
NBNH MF	1230	0.17	0.18	0.65	26.30	6.00	1.35	224	0	1006	0	0	0.22		0.26	
NBNH MM	610	1.06	-0.16	0.10	26.42	5.00	1.11	114	0	486	0	10	0.12		0.37	0.96

Table 1: Height Heritability

1 Total Sample
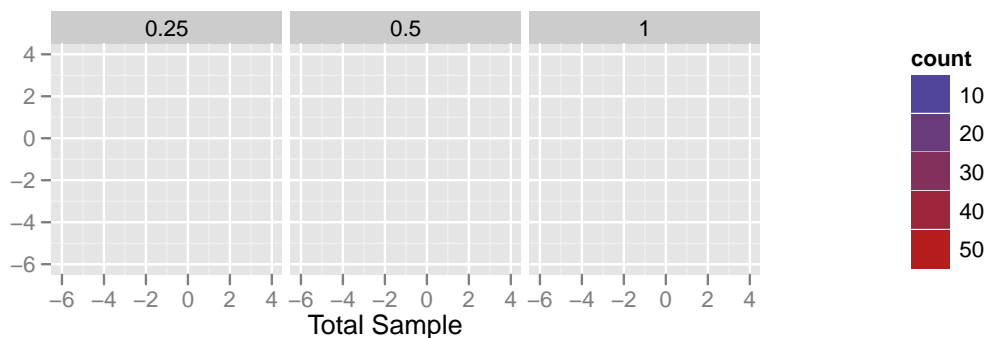
Plot Explanation: Each row of graphs isolates a subgroup.

Each cell in a row isolates a unique value of R; this is displayed in the gray header above each cell.

Axis and hexbin sizes are constants across all rows.

The orange line is the LS regression for the row (repeated in each cell).

The yellow line is the LS regression for the cell.

The green line is the loess for each cell. It's bandwidth is not constant across allrows.

The hexbin density color is not constant across rows.

Relevant portions of the table are repeated on each page.

2 By Gender

Subgroup	h^2	c^2	e^2	$N_{.25}$	$N_{.375}$	$N_{.5}$	$N_{.75}$	N_{Mz}	$r_{.25}$	$r_{.375}$	$r_{.5}$	r_{Mz}
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MF	0.38	0.04	0.58	1110	0	2422	0	0	0.13		0.23	
MM	0.82	-0.13	0.32	522	0	1256	0	18	0.09		0.26	0.93
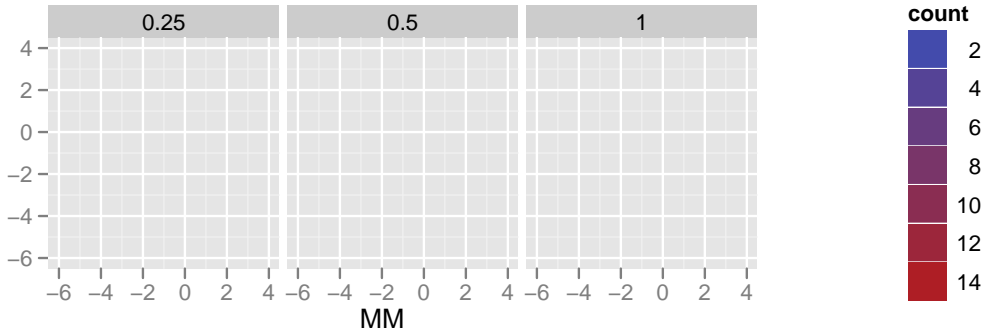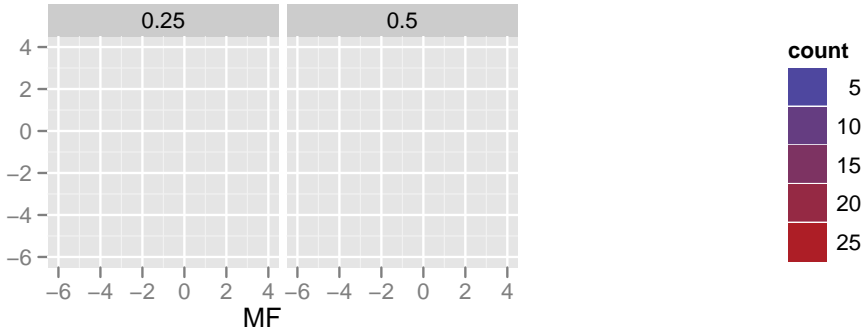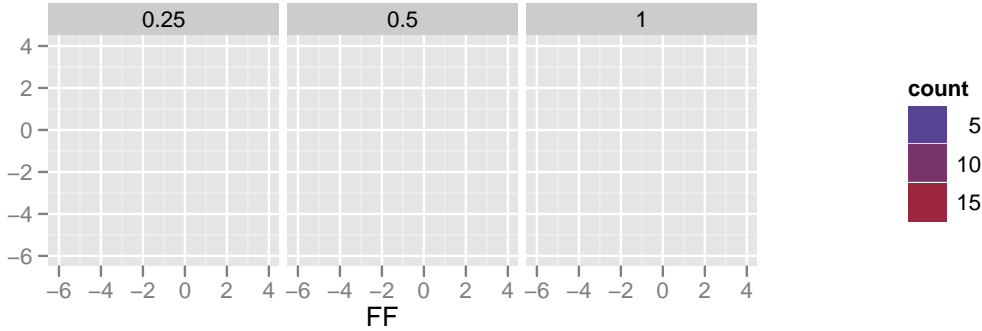
3 By Race

Subgroup	h^2	c^2	e^2	$N_{.25}$	$N_{.375}$	$N_{.5}$	$N_{.75}$	N_{Mz}	$r_{.25}$	$r_{.375}$	$r_{.5}$	r_{Mz}
Total	0.67	-0.03	0.37	2206	0	4864	0	28	0.14		0.29	0.95
Hispanic	0.22	0.10	0.68	404	0	1372	0	2	0.16		0.21	-1.00
Black	0.65	-0.04	0.39	1380	0	1508	0	10	0.12		0.28	0.89
NBNH	0.99	-0.14	0.15	422	0	1984	0	16	0.12		0.35	0.97

Hispanics

Blacks

NBNH