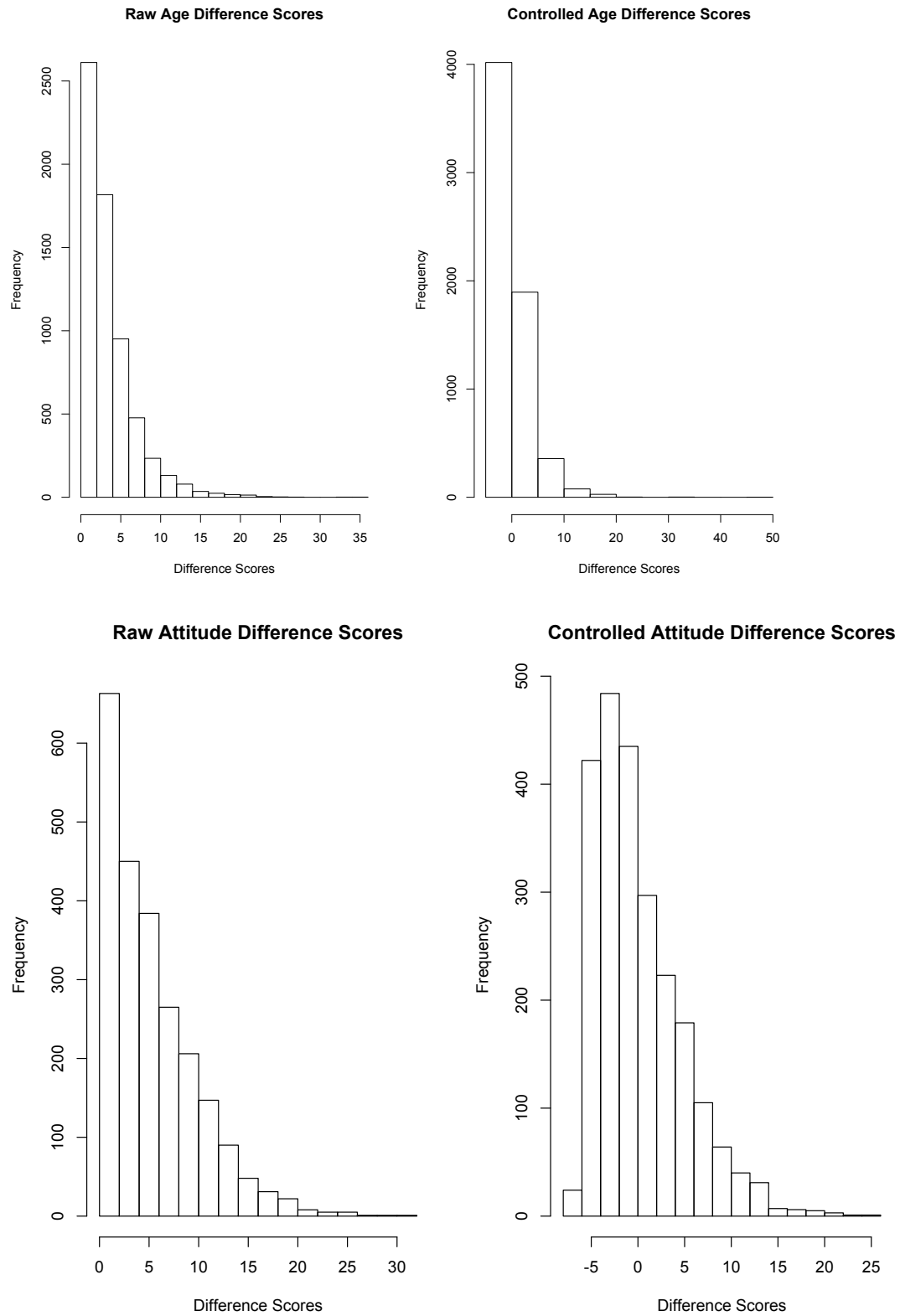
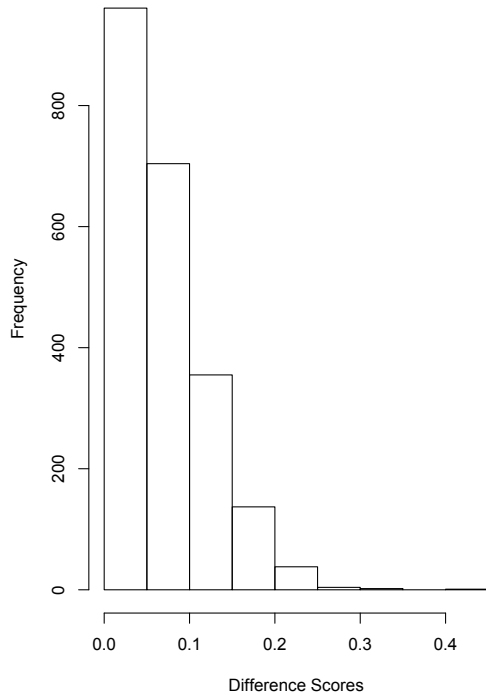


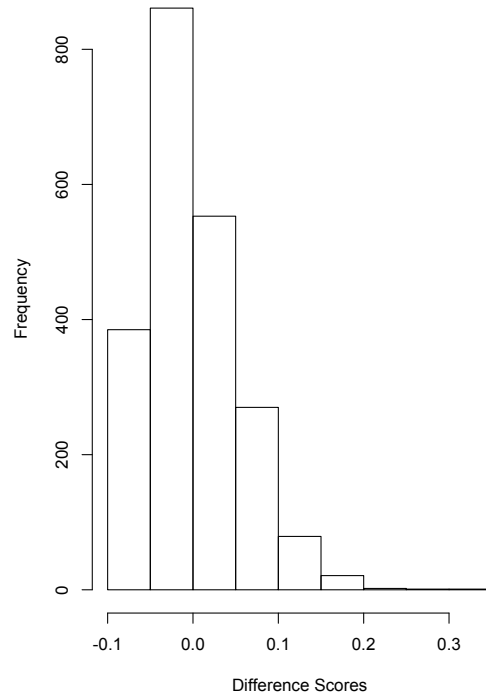
Supplemental Figure I. Histograms comparing controlled vs. uncontrolled difference scores



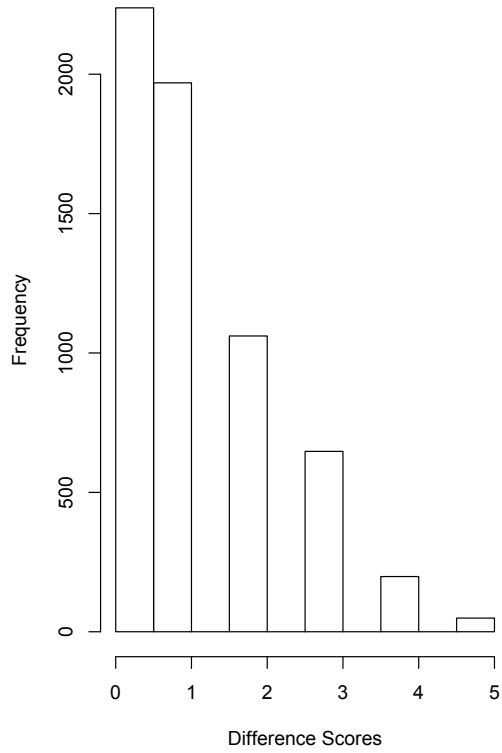
Raw BMI Difference Scores



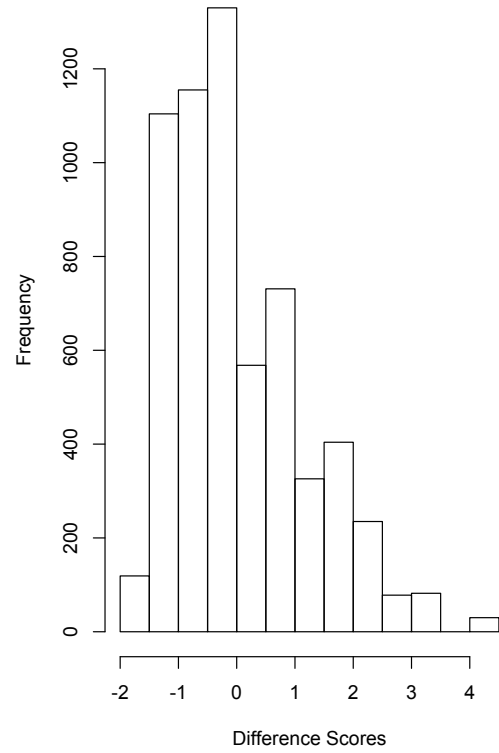
Controlled BMI Difference Scores



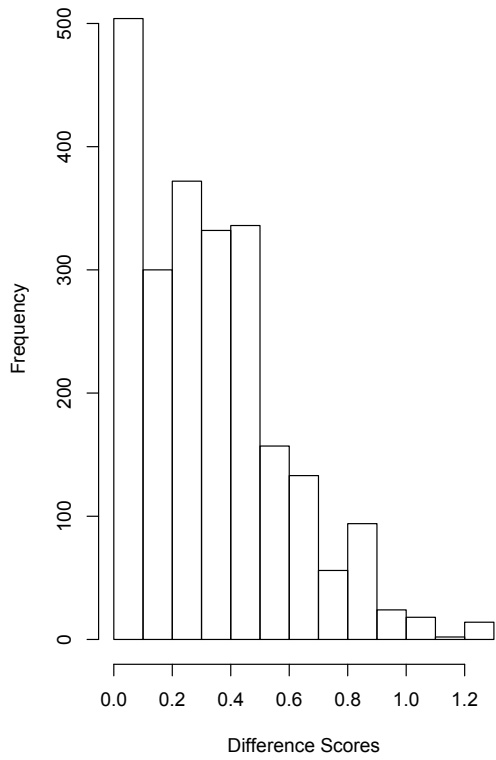
Raw Education Difference Scores



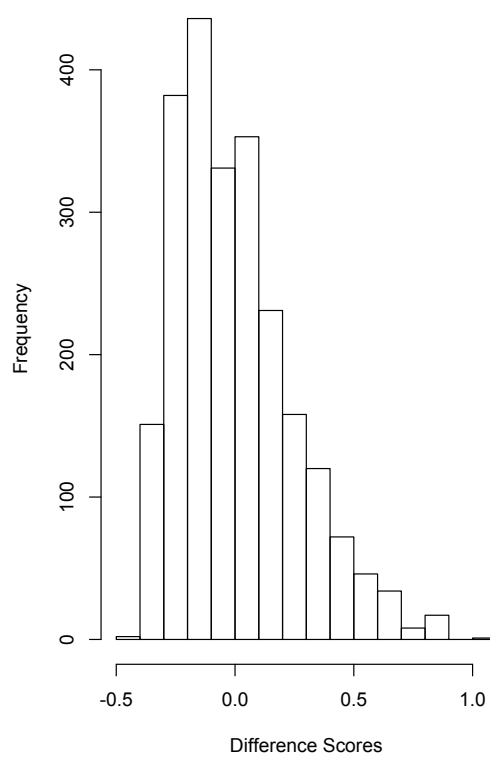
Controlled Education Difference Scores



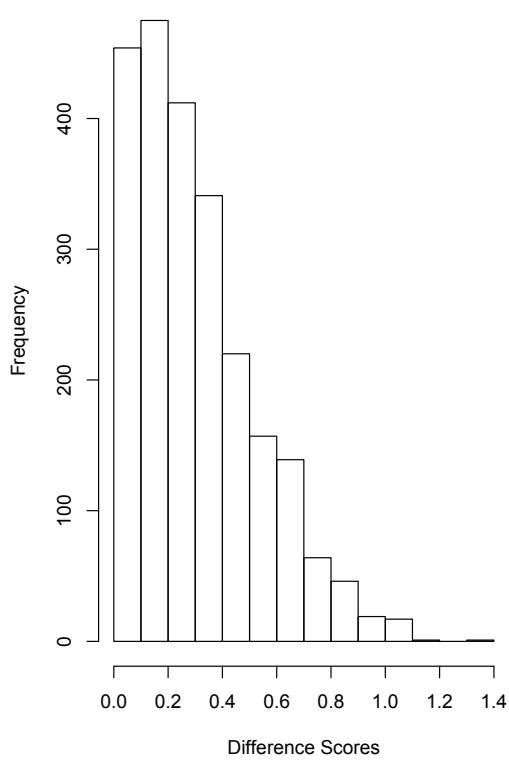
Raw Extraversion Difference Scores



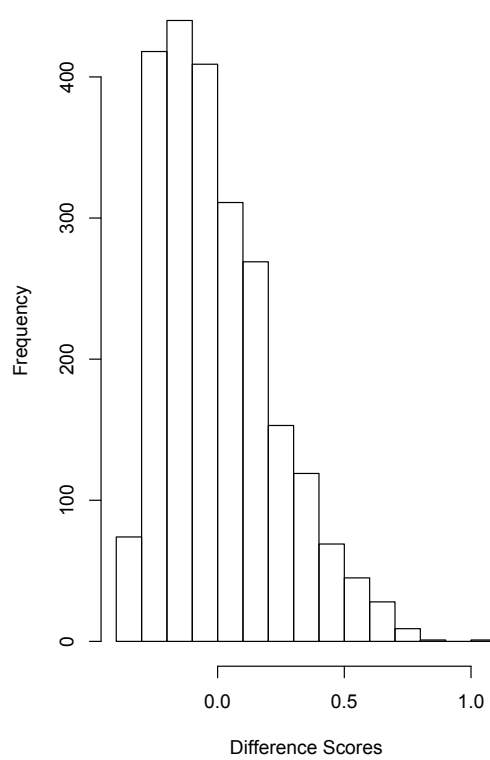
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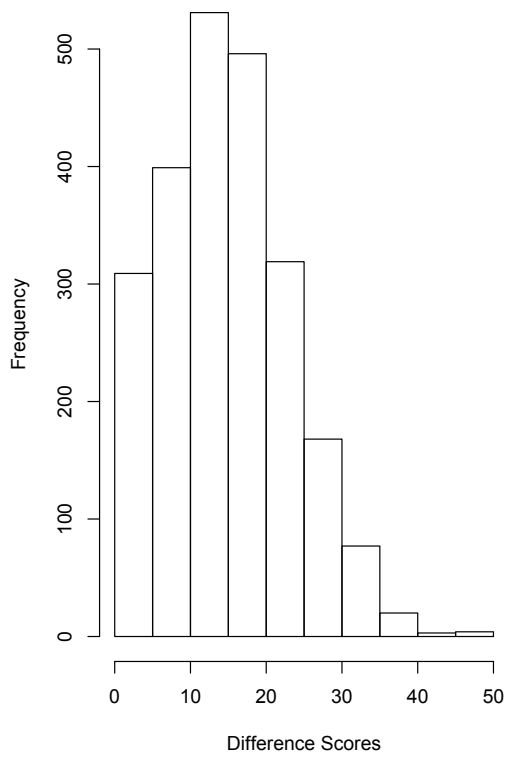
Raw Harm Avoidance Difference Scores



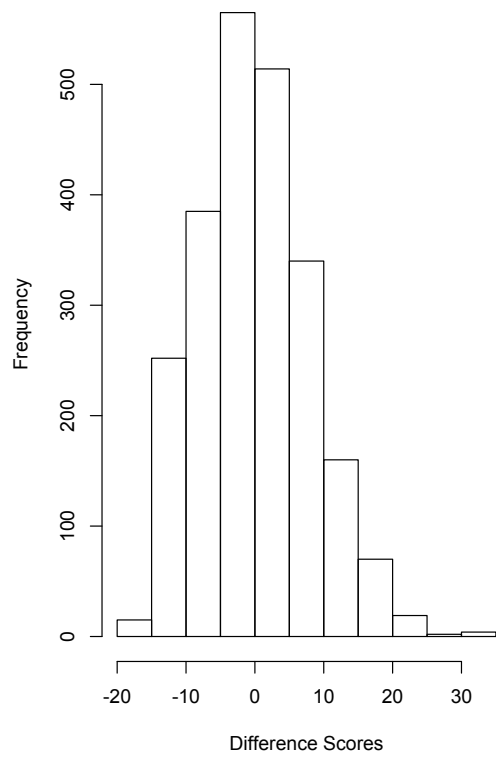
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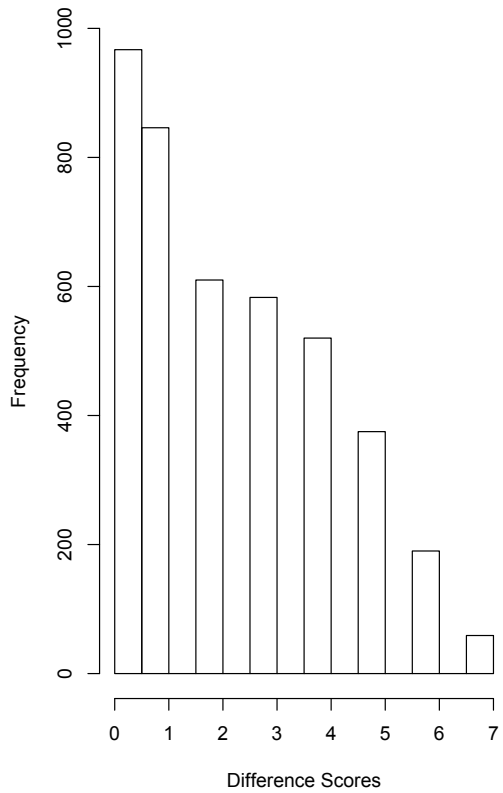
Raw Height Difference Scores



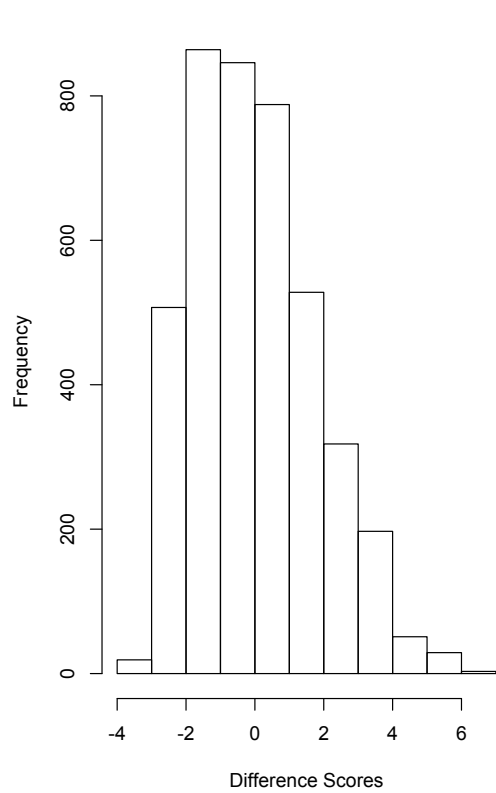
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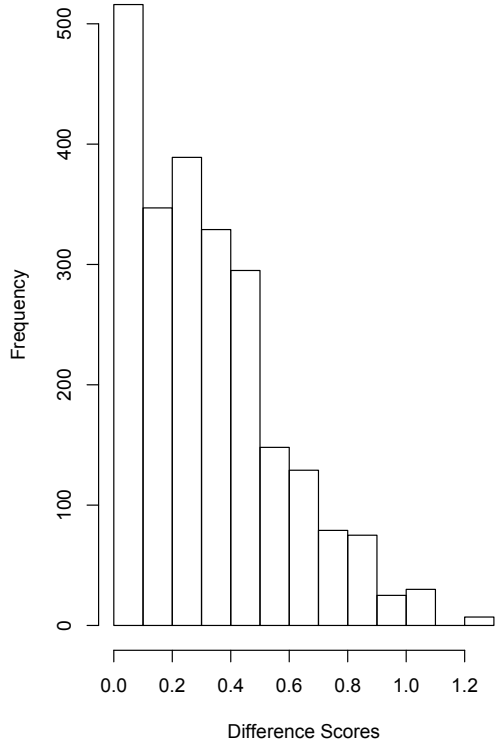
Raw Income Difference Scores



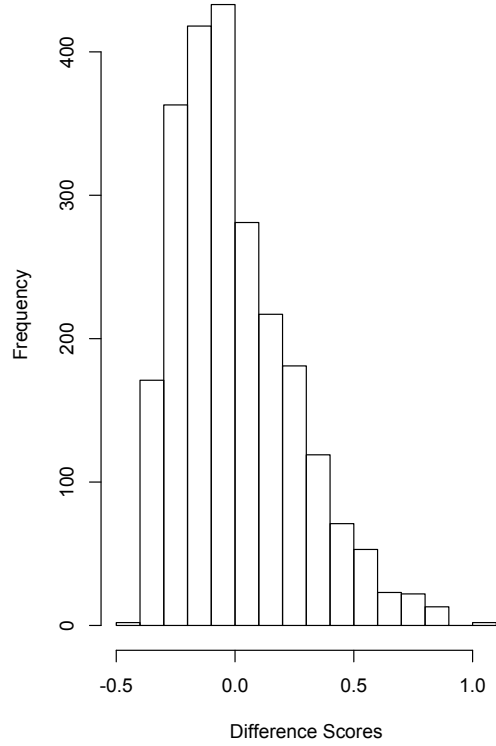
Controlled Income Difference Scores



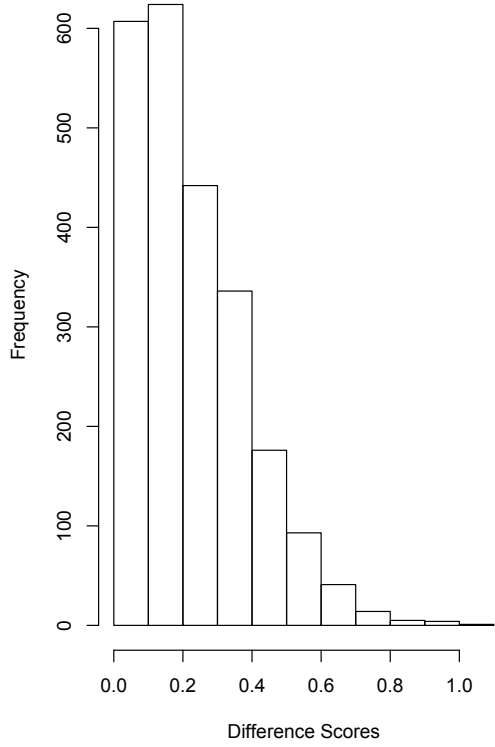
Raw Neuroticism Difference Scores



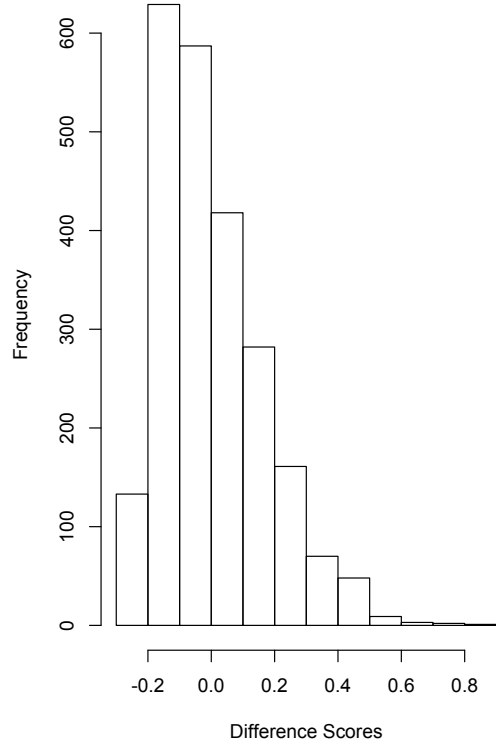
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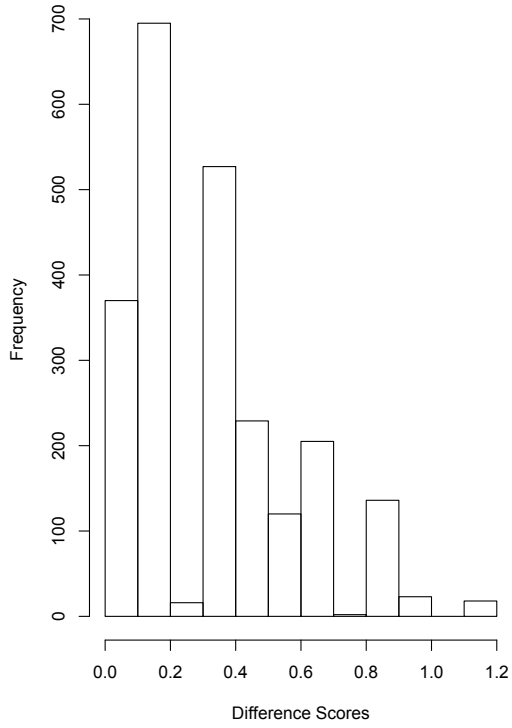
Raw Novelty Seeking Difference Scores



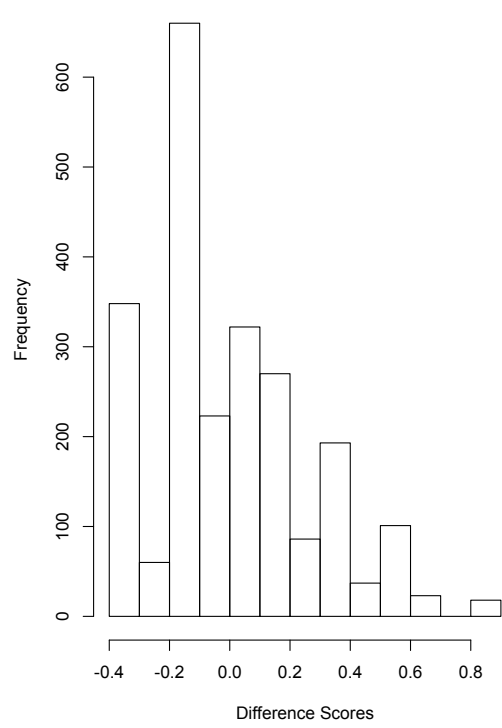
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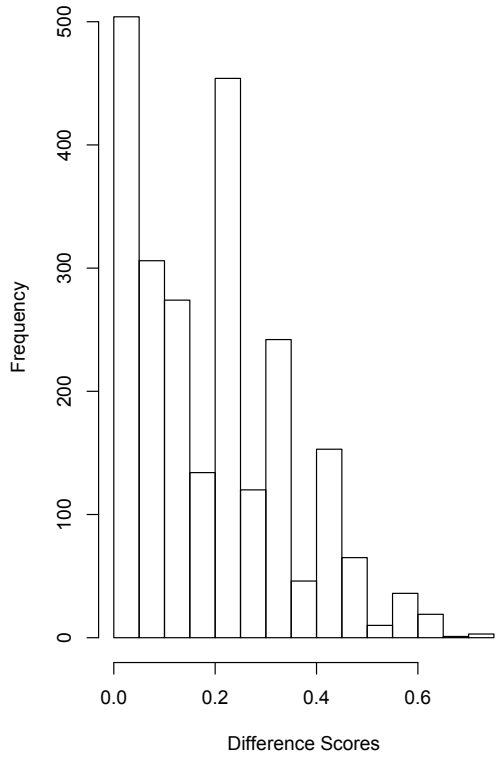
Raw Persistence Difference Scores



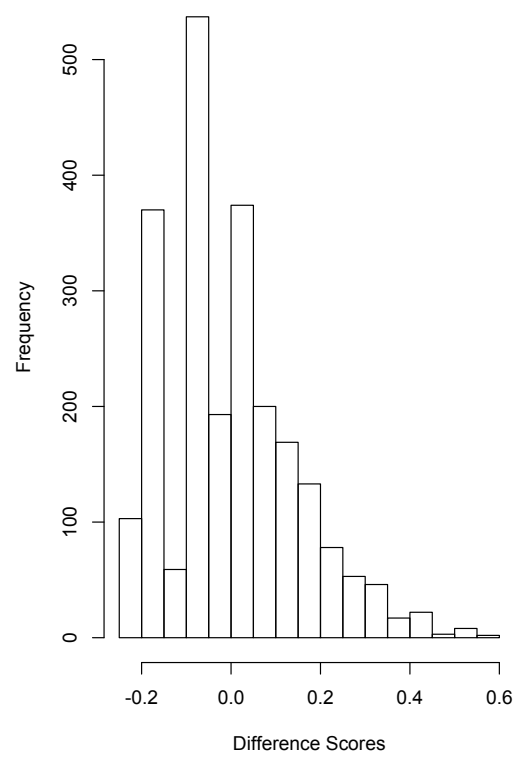
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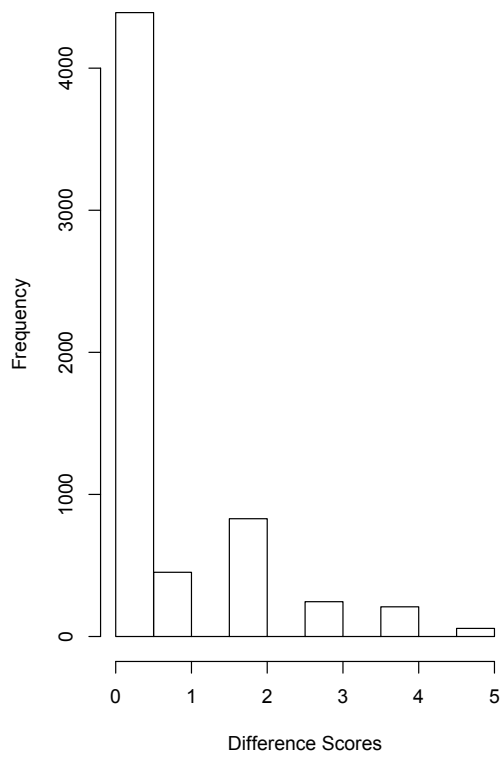
Raw Psychoticism Difference Scores



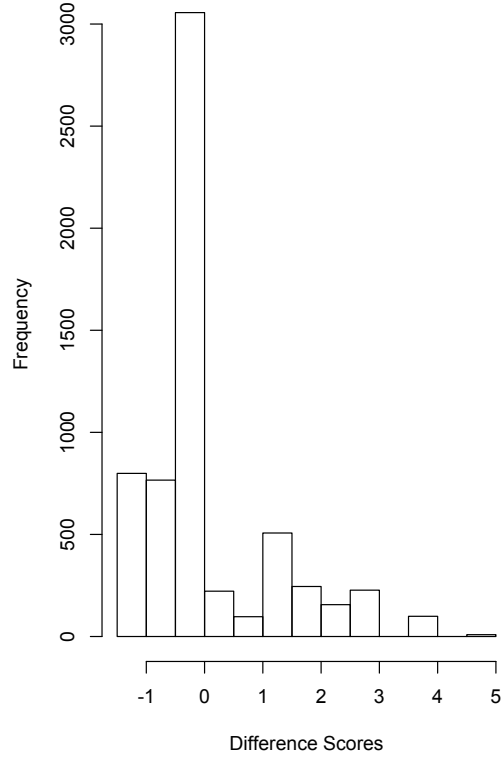
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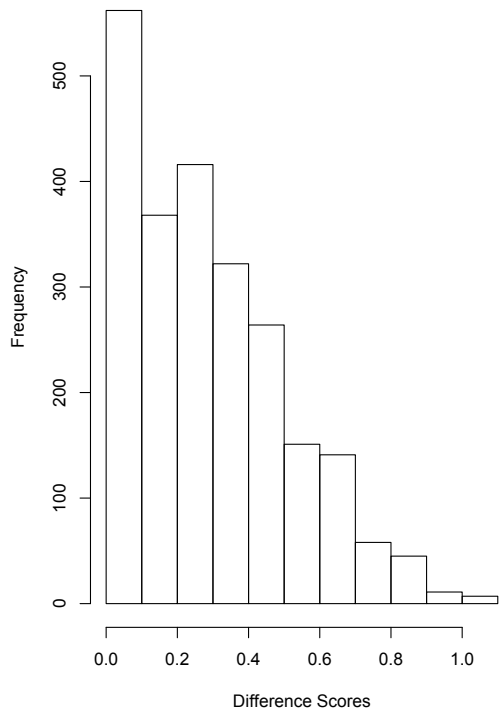
Raw Religiosity Difference Scores



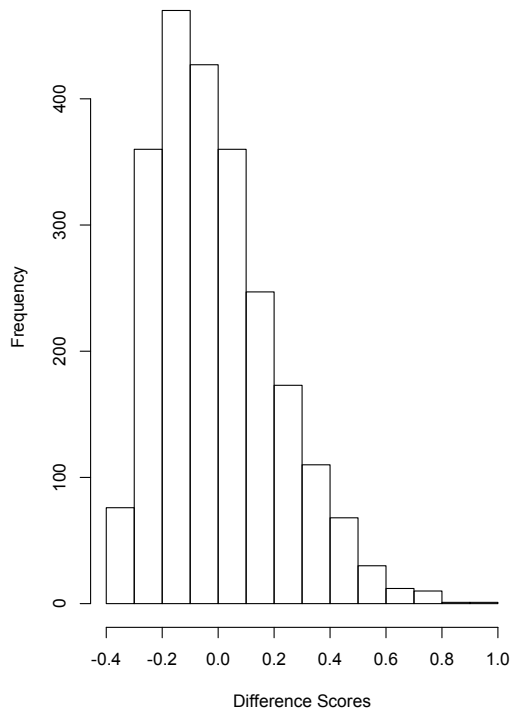
Controlled Religiosity Difference Scores



Raw Reward Dependence Difference Scores



Controlled Reward Dependence Difference Scores



Supplementary Table I. Couple similarity scores correlated with partner trait scores used in Zietsch et al., (2011)

Trait	Males (N)	Females (N)
BMI	.27*** (767)	.28*** (1400)
Height	.21*** (812)	.13 *** (1508)
Education	-.15*** (1751)	.22*** (3703)
Income	-.22*** (1338)	-.11*** (2396)
Religiosity	-.20*** (1743)	.41*** (3647)
Attitudes	.01 (804)	.03 (1518)
Neuroticism	.20*** (824)	.03 (1538)
Extraversion	-.20*** (815)	-.30*** (1527)
Psychoticism	.05 (827)	.01 (1534)
Harm avoidance	.17*** (820)	.04 (1520)
Novelty seeking	.00 (813)	.03 (1511)
Reward dependence	-.07* (820)	-.10*** (1519)
Persistence	-.01 (817)	-.22*** (1518)
Age	-.03 (2120)	.04* (4257)

* $p < .05$. ** $p < .01$. *** $p < .001$

Supplementary Table II. Mean difference[†] between twins and their partners and partner correlations for each trait split by sex

Trait	Number of couples		Mean couple difference [†]		Partner Correlation [♦] (<i>r</i>)	
	Male twins	Female twins	Male twins	Female twins	Male twins	Female twins
Body mass index	772	1430	1.29	1.32	.15***	.13***
Height (cm)	813	1513	1.77	1.80	.22***	.18***
Education	1975	4187	1.21	1.12	.49***	.47***
Income	1489	2661	2.12	2.32	.20***	.15***
Religiosity	2012	4171	.54	.69	.78***	.71***
Attitudes	805	1522	1.21	1.25	.69***	.66***
Neuroticism	825	1544	1.32	1.28	.10*	.03
Extraversion	815	1527	1.35	1.33	.04	.04
Psychoticism	828	1539	1.23	1.22	.16***	.16***
Harm Avoidance	821	1525	1.33	1.32	.08*	.01
Novelty Seeking	818	1525	1.33	1.27	.07*	.09*
Reward Dependence	821	1524	1.31	1.34	.01	.04
Persistence	818	1523	1.35	1.28	.07*	.01
Age	2120	4258	1.05	.99	.96***	.96***

[†]Mean difference represents the average absolute difference between twins and their partners on trait score for Education, Income and Religiosity (because they are ordinal measures), and difference in standard deviations of trait for the other measures.

[♦]Partner correlations do not include parents of twins, unlike those reported in Zietsch et al. (2011) and as a result correlations differ slightly in this sample. Though some correlations differ between males and females, these are qualitative and not significant – refer to Methods for further explanation.

* $p < .05$

*** $p < .001$

Supplementary Table III: Proportion of variance accounted for by additive genetic (*A*), shared environmental (*C*), and residual (*E*) effects on the tendency to assortatively mate for unadjusted individual traits.

Trait	<i>A</i> (95%CI)	<i>C</i> (95%CI)	Familial effects [<i>A</i> + <i>C</i>] (95%CI)	<i>E</i> (95%CI)
Body mass index	.00 (.00, .21)	.22 (.02, .31)	.22 (.12, .31)	.78 (.69, .88)
Height (cm)	.07 (.00, .20)	.02 (.00, .18)	.09 (.00, .20)	.91 (.80, 1.00)
Education	.07 (.00, .19)	.07 (.00, .16)	.13 (.08, .19)	.87 (.81, .92)
Income	.08 (.00, .14)	.00 (.00, .11)	.08 (.01, .14)	.92 (.86, .99)
Religiosity	.11 (.00, .16)	.00 (.00, .12)	.11 (.05, .16)	.89 (.84, .95)
Attitudes	.08 (.00, .20)	.00 (.00, .15)	.09 (.00, .20)	.91 (.80, 1.00)
Neuroticism	.04 (.00, .17)	.03 (.00, .15)	.06 (.00, .17)	.94 (.83, 1.00)
Extraversion	.03 (.00, .15)	.00 (.00, .12)	.03 (.00, .15)	.97 (.85, 1.00)
Psychoticism	.03 (.00, .15)	.00 (.00, .13)	.03 (.00, .15)	.97 (.85, 1.00)
Harm Avoidance	.00 (.00, .19)	.09 (.00, .18)	.09 (.00, .19)	.91 (.81, 1.00)
Novelty Seeking	.00 (.00, .09)	.00 (.00, .07)	.00 (.00, .09)	1.00 (.91, 1.00)
Reward Dependence	.06 (.00, .16)	.00 (.00, .12)	.06 (.00, .06)	.94 (.84, 1.00)
Persistence	.00 (.00, .16)	.05 (.00, .15)	.05 (.00, .16)	.95 (.84, 1.00)
Age	.11 (.00, .17)	.00 (.00, .12)	.11 (.05, .17)	.89 (.83, .95)

Supplementary Table IV: Uncontrolled partner similarity score correlations between family members (*r* and 95%CI).

Trait	MZM Twins	MZF Twins	MZ-Equated	DZM Twins	DZF Twins	DZOS Twins	DZ-Equated
Body mass index	.13 (-.08, .33)	.17 (.02, .30)	.16 (.03, .27)	.33 (-.06, .59)	.36 (.15, .53)	.19 (-.05, .40)	.29 (.15, .41)
Height (cm)	.08 (-.11, .26)	.11 (-.04, .25)	.09 (-.02, .20)	.10 (-.27, .42)	.03 (-.18, .24)	.08 (-.14, .28)	.06 (-.08, .20)
Education	.17 (.06, .27)	.12 (.05, .19)	.13 (.07, .19)	.16 (.01, .30)	.08 (-.01, .17)	.05 (-.04, .15)	.08 (.02, .14)
Income	.05 (-.07, .18)	.09 (.00, .18)	.08 (.01, .15)	-.05 (-.21, .11)	.05 (-.08, .18)	-.04 (-.15, .07)	-.01 (-.09, .06)
Religiosity	-.04 (-.15, .07)	.16 (.09, .22)	.10 (.05, .16)	.07 (-.08, .22)	.03 (-.05, .12)	-.04 (-.14, .06)	.01 (-.05, .07)
Attitudes	.11 (-.11, .32)	.11 (-.03, .24)	.11 (-.01, .22)	.07 (-.19, .32)	-.10 (-.34, .15)	-.03 (-.30, .26)	-.02 (-.17, .13)
Neuroticism	.00 (-.18, .18)	.10 (-.04, .23)	.07 (-.05, .17)	.33 (-.04, .58)	-.05 (-.26, .16)	.04 (-.26, .16)	.04 (-.10, .18)
Extraversion	.07 (-.12, .26)	.03 (-.12, .18)	.04 (-.08, .16)	-.17 (-.48, .21)	.04 (-.16, .23)	-.05 (-.29, .19)	-.02 (-.16, .12)
Psychoticism	.03 (-.18, .25)	.04 (-.10, .18)	.05 (-.08, .17)	.18 (-.29, .53)	-.13 (-.36, .14)	-.14 (-.41, .17)	-.07 (-.23, .10)
Harm Avoidance	-.05 (-.25, .15)	.14 (-.01, .27)	.08 (-.04, .19)	.38 (.11, .58)	-.08 (-.30, .16)	-.04 (-.23, .15)	.05 (-.09, .18)
Novelty Seeking	-.03 (-.26, .19)	.00 (-.14, .13)	-.01 (-.13, .11)	-.08 (-.31, .18)	-.03 (-.23, .18)	-.07 (-.28, .14)	-.06 (-.18, .07)

Reward Dependence	.16 (-.04, .34)	.05 (-.10, .20)	.08 (-.04, .19)	-.03 (-.32, .27)	-.06 (-.25, .14)	.10 (-.17, .34)	-.01 (-.15, .13)
Persistence	.08 (-.14, .29)	-.01 (-.17, .15)	.02 (-.11, .15)	.06 (-.25, .35)	.11 (-.11, .32)	-.13 (-.37, .13)	.03 (-.12, .18)
Age	.12 (.00, .22)	.11 (.04, .18)	.11 (.01, .16)	.00 (-.14, .13)	.01 (.00, .16)	.01 (.00, .17)	.07 (.01, .12)

Note: M = male, F = Female, OS = Opposite Sex, MZ = Monozygotic, DZ = Dizygotic, Equated = correlations equated across sex.