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Title	The reality and evolutionary significance of human psychological sex
	differences
Type	Article
URL	https://clok.uclan.ac.uk/26186/
DOI	https://doi.org/10.1111/brv.12507
Date	2019
Citation	Archer, John (2019) The reality and evolutionary significance of human psychological sex differences. Biological Reviews, 94 (4). pp. 1381-1415. ISSN 1464-7931
Creators	Archer, John

It is advisable to refer to the publisher's version if you intend to cite from the work. https://doi.org/10.1111/brv.12507

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# **Supplementary Material**

Table S1. Aggression, violence, and dominance (MA: meta-analysis;  $\mathbf{S}$ : survey).

Variable	Study	Sample/measures	N	k	d	CI
anger	<b>S:</b> Brebner (2003)	students from 41 countries: frequency	6868		-0.08 <sup>a</sup> -0.20 <sup>a</sup>	-0.12, -0.03 -0.25, -0.15
		intensity Australian students:	2199		-0.20	-0.23, -0.13
		frequency	2177		-0.09 <sup>a</sup>	-0.17, -0.001
		intensity			$-0.00^{a}$	-0.06, 0.04
	<b>MA:</b> Archer (2004)	adults: self-reports	35558 <sup>b</sup>	46	-0.003*	-0.03, 0.02
	<b>MA:</b> Else-Quest <i>et al.</i> (2006)	3 months to 13 years	3984	24	0.04	-0.04, 0.11
	MA: Chaplin & Aldao (2013)	infancy to adolescence (mostly preschool ages)	NA	77	0.10	0.03, 0.16
indirect	<b>MA:</b> Knight <i>et al.</i> (2002)	adults: various methods	NA	8	-0.07	-0.09, -0.07
	<b>MA:</b> Archer (2004)	adults: self-reports	30920 <sup>b</sup>	40	-0.02*	-0.07, 0.02
		children: peer-reports	10148 <sup>b</sup>	26	-0.10	-0.14, -0.06
	<b>MA:</b> Card <i>et al.</i> (2008)	ages up to 18 years: various methods		107	-0.06	-0.11, -0.02
	<b>S:</b> Lansford <i>et al.</i> (2012)	ages 7–10 years (9 countries)	1410		0.08 <sup>d</sup>	-0.02, 0.18 <sup>c</sup>
verbal	<b>MA:</b> Hyde (1984, 1986)	adults: various methods	NA	6	0.43	NA
	MA: Eagly & Steffen (1986)	adults: experimental methods	NA	20	0.18	0.10, 0.25
	MA: Bettencourt &	adults: experimental methods				
	Miller (1996)	(1) neutral conditions	NA	13	0.30	0.12, 0.48
		(2) provocation	NA	20	0.05	-0.08, 0.18
	<b>MA:</b> Knight <i>et al.</i> (1996) <sup>e</sup>	adults: various methods	NA	6	0.46	0.31, 0.61
	MA: Bettencourt &	adults: experimental methods:		_	0.00	0 1 0-0
	Kernahan (1997)	(1) neutral conditions	31	2	0.39	-0.57, 1.35°
		(2) violent cues, provocation	71	3	-0.27	-0.85, 0.31 <sup>c</sup>
	<b>MA:</b> Knight <i>et al.</i> (2002)	adults: various methods	NA	22	0.28	0.26, 0.30
	<b>MA:</b> Archer (2004)	adults: self-reports	52564 <sup>b</sup>	68	0.30*	0.27, 0.33
		children: observations	1624 <sup>b</sup>	29	0.14	0.02, 0.26
		children: peer reports	5460 <sup>b</sup>	14	0.51	0.45, 0.56
	MA. Cond at =1 (2000)	children: teacher reports	4103 <sup>b</sup>	11 27	0.24	0.13, 0.34
	<b>MA:</b> Card <i>et al.</i> (2008)	various methods: ages up to 18 years	NA	21	0.38	NA
physical	<b>MA:</b> Hyde (1984, 1986)	adults: various methods	NA	26	0.60	NA
physical	MA: Eagly & Steffen (1986)	adults: experimental methods	NA	30	0.40	0.33, 0.47

Variable	Study	Sample/measures	N	k	d	CI
physical	MA: Bettencourt &	adults: experimental				
(contd)	Miller (1996)	methods	NA	35	0.36	0.25, 0.47
		(1) neutral conditions (2) provocation	NA	26	0.30	0.17, 0.43
	MA: Knight et al.	adults: various methods	NA	38	0.91	0.86, 0.96
	(1996) <sup>e</sup>					
	MA: Bettencourt &	adults: experimental				
	Kernahan (1997)	methods	198	6	0.43	0.39. 0.47 <sup>c</sup>
		<ul><li>(1) neutral conditions</li><li>(2) violent cues/</li></ul>	218	7	0.32	$0.02, 0.62^{c}$
		provocation				
	<b>S:</b> Brener <i>et al.</i> (1999)	ages 15–18 years (YRBS):	55734			
		physical fight (over 4 years)			$0.41^{\rm f}$	0.36, 0.47
	<b>MA:</b> Knight <i>et al.</i> (2002)	adults: various methods	NA	41	0.59	0.56, 0.61
	<b>S:</b> Nansel <i>et al.</i> (2003)	school age (HBSC):	15686		$0.47^{g}$	0.41, 0.54
		physical fights, over 4 in last year				,
	<b>MA:</b> Archer (2004)	adults: self-reports	85803 <sup>b</sup>	63	0.59 <sup>h*</sup>	0.56, 0.62
	Will Thener (2001)	children: observations	2408 <sup>b</sup>	43	0.53	0.43, 0.62
		children: peer reports	8190 <sup>b</sup>	21	0.84	0.80, 0.89
		children: teacher reports	4103 <sup>b</sup>	11	0.40	0.36, 0.45
	<b>MA:</b> Card <i>et al.</i> (2008)	various methods: up to 18	NA	27	0.73	NA
	<b>MA.</b> Card <i>et al.</i> (2008)	years	IVA	21	0.73	IVA
	<b>S:</b> Cross (2010)	online student sample, UK	3775		0.58	0.52, 0.65
	<b>S:</b> Lansford <i>et al.</i> (2012)	ages 7–10 years, 9 countries	1410		0.38 0.22 <sup>d</sup>	0.12, 0.33°
W.Conon	` /		55734			·
weapon-	<b>S:</b> Brener <i>et al.</i> (1999)	ages 15–18 years (YRBS):	33/34		$0.91^{\rm f}$	0.88, 0.94
carrying	G D (1000)	over 4 years	2227		0.71i	0.57.0.04
	<b>S:</b> Durant (1999)	ages 11–15 years (YRBS): North Carolina schools	2227		$0.71^{i}$	0.57, 0.84
	<b>S:</b> Nansel <i>et al.</i> (2003)	school age: HBSC	15686		$0.77^{\rm g}$	0.71, 0.82
W.Conon		9	3692			-0.17, 1.43
weapon use	S: Singer & Flannery (2000)	mean age 16 years, Ohio/ Colorado: shot at person			0.63 <sup>J</sup>	,
	<b>S:</b> Marcus (2009)	NLSAH-W-III: 16–21 years	14098		$0.88^{k*}$	0.82, 0.95
violent crime	<b>S:</b> Yao <i>et al.</i> (2014)	adults (population data, official Swedish registers	4849478		1.11 <sup>g*</sup>	1.10, 1.12 °
homicide	<b>S:</b> Daly & Wilson (1990)	Chicago 1965–1976: same-sex homicides	NA		$2.91^{1}$	NA
	<b>S:</b> Fox & Zawitz (2012)	US, 1976–2004 (FBI): same-sex homicides	NA		2.54 <sup>1*</sup>	NA
cyber- bullying	MA: Barlett & Coyne (2014)	ages 7–24 years	NA	122	0.08	0.07, 0.08
violent	<b>S:</b> Exelmans <i>et al</i> .	ages 12–18 years, 129	3372		1.41 <sup>m*</sup>	1.33, 1.49
computer-	(2015)	Flemish schools	3312		1.41	1.33, 1.49
game use forgiveness	<b>MA:</b> Miller <i>et al.</i> (2008)	adults	15731	70	-0.28*	-0.36, -0.21
Torgiveness	<b>IVIA:</b> Willer et al. (2008)	auuits	13/31	70	<b>-</b> ∪.∠8	1 -0.30, -0.21

Table S1 contd.

Variable	Study	Sample/measures	N	k	d	CI
revenge	<b>MA:</b> Miller <i>et al.</i> (2008)	adults	1453	6	$0.83^{*}$	0.43, 1.24
social	<b>MA:</b> Lee <i>et al.</i> (2011)	adults: overall	52826	169	0.43*	0.39, 0.47
dominance		US studies	26255 <sup>n</sup>	84	0.51	0.46, 0.57
orientation		non-US studies	26572 <sup>n</sup>	95	0.36	0.30, 0.41
	<b>S:</b> Ho <i>et al.</i> (2015)	adults (US)	3107		$0.30^{\rm o}$	0.22, 0.37
competitive-	S: Ahlgren & Johnson	ages 7–18 years (US)	2130		$0.10^{p}$	0.01, 0.18
ness	(1979)					
	MA: Walters et al.	in negotiations, adults, US	NA	79	$0.07^{*}$	0.02, 0.13
	(1998)	& Canada				

*Note. N* indicates total number of participants; *k* indicates number of samples in a meta-analysis; *d* indicates Cohen's *d*, which is positive if in the male direction and negative if in the female direction; *CI* indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. See footnote to Table 3 for selection criteria.

Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

Abbreviations: FBI = US Federal Bureau of Investigation; HBSC = Health Behavior in School-aged Children, 1998 (World Health Organization survey); NA = not available; NLSAH-W-III = National Longitudinal Study of Adolescent Health Wave III; YRBS = Youth Risk Behavior Survey.

<sup>&</sup>lt;sup>a</sup> Calculated from means, standard deviations and sample sizes in Table 1 of source (note that the values in the present table are lower than the ones in the source).

<sup>&</sup>lt;sup>b</sup> Approximate values obtained by multiplying mean number by the number of studies.

<sup>&</sup>lt;sup>c</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>d</sup> Values supplied by the first author for each nation separately ranged from –0.12 (Sweden) to 0.22 (China and Thailand) for indirect aggression, and 0.03 (Kenya) to 0.64 (Jordan) for physical aggression.

<sup>&</sup>lt;sup>e</sup> Reanalysis and extension of data in Hyde (1984, 1986).

<sup>&</sup>lt;sup>f</sup> Calculated from proportions in Table 5 of source. The value for N is the total over the 4 years and the d values are the mean weighted ds for the 4 years of the study (random effects model).

<sup>&</sup>lt;sup>g</sup> Calculated from proportions in Table 1 of source.

<sup>&</sup>lt;sup>h</sup> Value with outliers removed; value for the whole sample, k = 111, was d = 0.39.

<sup>&</sup>lt;sup>i</sup> Calculated from data in Tables 1 and 2 of source. The value presented here is derived from the composite of (1) guncarrying and (2) carrying another weapon.

<sup>&</sup>lt;sup>j</sup> Calculated from proportions in Table 2 of source: this is the mean value from a combination of (1) attack someone with a knife and (2) shot at someone.

<sup>&</sup>lt;sup>k</sup> Calculated from proportions in text of source. The value presented here is the mean of four measures: (1) use of weapon in a physical fight; (2) gang fights with weapon; (3) pulling a knife or gun on someone; (4) shot or stabbed someone.

<sup>&</sup>lt;sup>1</sup> Percentage of chance encounters in which male would be the killer in a representative sample of same-sex homicide perpetrators, converted into *d* values from Table 1 in Grissom (1994).

m Calculated from the means and standard deviations in the text of the source.

<sup>&</sup>lt;sup>n</sup> Calculated from figures in Table 1 of source.

<sup>&</sup>lt;sup>o</sup> Calculated from *t* values in Table 10 of source.

<sup>&</sup>lt;sup>p</sup> Calculated from the one-way F value, obtained from Table 1 of source (i.e. recalculated using the data in this table).

Table S2. Sensation-seeking, risk-taking and impulsivity (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI
reward	MA: Miettunen <i>et al</i> .	TPQ-TCI reward dependence	21092	32	$-0.63^{a^*}$	-0.78, -0.49
sensitivity	(2007)	_				
	MA: Cross et al.	overall	5978	18	$0.01^{*}$	-0.17, 0.19
	(2011)	SPSRQ & GRAPES	3534	9	0.44	0.36, 0.53
		BAS reward subscale	2573	9	-0.27	-0.41, -0.13
		TPQ-TCI reward dependence	1278	4	-0.56	-0.68, -0.44
punishment	<b>MA:</b> Miettunen <i>et al</i> .	TPQ-TCI harm avoidance	21092	32	$-0.33^*$	-0.41, -0.24
sensitivity	(2007)					
	<b>MA:</b> Cross et al.	overall	6689	18	-0.32	-0.45, -0.19
	(2011)	TPQ-TCI harm avoidance	2175	5	-0.43	-0.52, -0.33
		BIS	2223	8	-0.63	-0.74, -0.52
		harm avoidance	862	3	-0.78	-0.92, -0.64
sensation-	<b>MA:</b> Cross et al.	overall	52316	130	$0.39^{*}$	0.35, 0.43
seeking	(2011)	SSS	5635	22	0.48	0.41, 0.56
		UPPS sensation-seeking	3850	15	0.48	0.33, 0.63
	<b>MA:</b> Cross <i>et al.</i> (2013)	SSS overall	16936	67	0.46	0.41, 0.51
excitement- seeking <sup>b</sup>	<b>S:</b> Costa <i>et al.</i> (2001)	adults (3 samples)	22642	3	0.29 <sup>b*</sup>	0.14, 0.44
risk-taking	MA: Byrnes et al.	driving, self-report	NA	21	0.29	0.26, 0.32
	(1999)	driving, observations	NA	14	0.17	0.12, 0.22
	, ,	gambling	NA	33	0.21	0.14, 0.28
		physical (skills)	NA	7	0.43	0.38, 0.48
	MA: Cross et al.	risk-taking	7069	11	0.36	0.29, 0.44
	(2011)	disinhibition	5293	15	0.52	0.40, 0.65
		thrill and adventure-seeking	6259	16	0.41	0.29, 0.54
		EVS	17996	49	$0.49^{*}$	0.43, 0.56
impulsivity	<b>MA:</b> Else-Quest <i>et al.</i> (2006)	general: from 3 months to 13 years	2254	21	0.18	0.04, 0.33
	<b>MA:</b> Cross <i>et al</i> .	general	113233	206	$0.07^{*}$	0.05, 0.10
	(2011)	delayed discounting	1787	21	-0.08	-0.19, 0.02
		BART	576	10	0.30	0.11, 0.49
delay of	MA: Silverman	preschool to adulthood	5640	38	-0.12 <sup>c*</sup>	-0.27, 0.03
gratification	(2003a)					
resistance to	MA: Silverman	preschool to adulthood	NA	114	$-0.06^{c*}$	-0.10, -0.02
temptation	(2003b)					
effortful	MA: Else–Quest et al.	from 3 months to 13 years	792	6	$-1.01^{*}$	-1.37, -0.64
control	(2006)					
inhibitory	MA: Else-Quest et al.	from 3 months to 13 years	2876	22	-0.41*	-0.61, -0.21
control	(2006)					
risky	<b>S:</b> Cross (2010)	online student sample, UK	3775		0.34*	0.28, 0.41 <sup>d</sup>
impulsivity		(RIS)				

*Note*. N indicates total number of participants; k indicates number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals.

Table S2 contd.

Abbreviations: BART = Balloon Analogue Risk Test; BAS = Behavioral Activation System Scale (Carver & White, 1994); BIS = Behavioral Inhibition System Scale (Carver & White, 1994); EVS = Eysenck Venturesome Scale (Eysenck *et al.*, 1985); GRAPES = Generalized Reward and Punishment Expectancy Scales (Ball & Zuckerman, 1990); NA = not available; RIS = Risky Impulsiveness Scale (Campbell & Muncer, 2009); SPSRQ = Sensitivity to Punishment and Sensitivity to Reward Questionnaire (Torrubia *et al.*, 2001); SSS = Sensation Seeking Scale; TPQ-TCI = Tridimensional Personality Questionnaire – Temperament and Character Inventory (Cloninger, 1986); UPPS = Urgency, Premeditation, Perseverence and Sensation-seeking Questionnaire (Whiteside & Lynam, 2001).

<sup>\*</sup> indicates studies that were selected for inclusion in Table 3. See footnote to Table 3 for selection criteria. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

<sup>&</sup>lt;sup>a</sup> Described as a measure of sociability (Cloninger et al., 1994).

<sup>&</sup>lt;sup>b</sup> Meta-analysis of sex differences for excitement-seeking (a facet of extraversion) for 3 samples (Costa *et al.*, 2001), one of US students and two multi-national ones. The value presented is the mean, weighted by the reciprocal of the variance, using a random-effects model (CMA).

<sup>&</sup>lt;sup>c</sup> Calculated from the author's r values and sample sizes using CMA.

<sup>&</sup>lt;sup>d</sup> Calculated from standard error in source using equations from Borenstein et al. (2009, p. 52).

Table S3. Fearfulness (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI
fear	<b>MA:</b> Peck (1999)	adults' reactions to fear-	6486	94	-0.41*	$-0.46, -0.36^{a}$
		inducing stimuli in media				
	<b>S:</b> Brebner (2003)	students from 41 countries:	6868			
		frequency			$-0.25^{b}$	-0.30, -0.20
		intensity			$-0.38^{b}$	-0.43, -0.33
		Australian students:	2199			
		frequency			$-0.21^{b}$	-0.29, -0.12
		intensity			$-0.07^{b}$	-0.15, 0.02
	MA: Else-Quest et	from 3 months to 13 years	4858	34	-0.12	-0.20, -0.05
	al.(2006)					
	S: Burnham et al.	ages 7–17 years, schools in 2	1033		$-1.80^{c}$	NA
	(2013)	US states				
	MA: Chaplin &	infancy to adolescence,	NA	24	-0.10	-0.17, -0.03
	Aldao (2013)	mostly preschool				
fear in real-	S: Campbell <i>et al</i> .	3 samples from UK and	869		-1.16*	-1.32, -1.01
world situations	(2016)	Romania: SFQ				
pain perception	MA: Riley et al.	threshold	1696	17	0.51*	$0.46, 0.56^{d}$
	(1998)	tolerance	41670	10	$1.17^{*}$	1.16, 1.18 <sup>d</sup>

*Note*. *N* indicates total number of participants; *k* indicates number of samples in a meta-analysis; *d* indicates Cohen's *d*, which is positive if in the male direction and negative if in the female direction; *CI* indicates 95% confidence intervals.

\* indicates studies that were selected for inclusion in Table 3. See footnote to Table 3 for selection criteria. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

Abbreviation: SFQ = Situated Fear Questionnaire (Campbell et al., 2016).

<sup>&</sup>lt;sup>a</sup> Calculated from standard error in source using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>b</sup> Calculated from means, standard deviations and sample sizes in Table 1 of the source (note that the values in the present table are lower than the ones in the source).

<sup>&</sup>lt;sup>c</sup> Calculated from percentage of cases correctly classified, using Table 1 in Coe (2002).

<sup>&</sup>lt;sup>d</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

Table S4. Visuospatial and mathematical abilities (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI
VISUOSPATIA	L ABILITIES					
mental rotation	MA: Linn & Peterson (1985)	10–55 years	NA	29	0.73	0.50, 0.96
	MA: Druva-Roush & Wu (1989)	adults (US doctoral dissertations)	NA	43	0.43	NA
	<b>MA:</b> Voyer <i>et al.</i> (1995)	4–60 years	NA	78	0.56	0.32, 0.80 <sup>a</sup>
	1,111. ( by 61 et al. (1993)	over 18 years	NA	43	0.66*	$0.52, 0.80^{a}$
	<b>S:</b> Peters <i>et al.</i> (2006)	mainly student samples (Canada, Germany & Japan)	3367		0.89	0.89, 0.89 <sup>a</sup>
	<b>S:</b> Silverman <i>et al</i> . (2007)	adults: 40 nations (BBC internet survey)	244893		0.48	0.48, 0.48 <sup>b</sup>
	S: Lippa <i>et al.</i> (2010)	adults: 53 nations (BBC internet survey)	255144		0.47	0.46, 0.48 <sup>b</sup>
	<b>MA:</b> Voyer (2011)	adults: paper-and-pencil tests: overall short time limit no time limit	NA NA NA	36 7 23	0.70 1.03 0.51	0.65, 0.75 <sup>a</sup> 0.91, 1.15 <sup>a</sup> 0.44, 0.58 <sup>a</sup>
	<b>MA:</b> Maeda & Yoon (2013)	adults (PSVT:R <sup>c</sup> )	NA	70	0.57	0.50, 0.64 <sup>a</sup>
visuospatial perception/ ability	<b>MA:</b> Hyde (1981)	adolescence to old age (US): visual-spatial ability rod-and-frame test	NA NA	13 20	0.45 0.51	NA NA
	MA: Linn & Peterson (1985)	school ages to over 18 years	NA	62	0.44	0.04, 0.84
	MA: Druva-Roush & Wu (1989)	adults (US doctoral dissertations)	NA	43	0.03	NA
	S: Hedges & Nowell (1995)	adolescents: 2 US national samples (1960–1992)	98494		0.19 <sup>d</sup>	0.16, 0.22 <sup>a</sup>
	<b>MA:</b> Voyer <i>et al.</i> (1995)	4–60 years over 18 years	NA NA	92 53	0.44 0.48*	0.06, 0.82 <sup>a</sup> 0.10, 0.86 <sup>a</sup>
	<b>MA:</b> Uttal <i>et al.</i> (2013)	adults	NA	79	0.29 <sup>e</sup>	0.15, 0.43
spatial visualization	MA: Linn & Peterson (1985)	school ages to over 18 years	NA	81	0.13	-0.24, 0.50
	<b>S:</b> Feingold (1988)	DAT norms (US, 1947–1980)	193844	4	0.24	0.23, 0.25 <sup>b</sup>
	MA: Druva-Roush & Wu (1989)	adults (US doctoral dissertations)	NA	43	0.17	NA
	<b>MA:</b> Voyer <i>et al.</i> (1995)	4–60 years over 18 years	NA NA	116 56	0.19 0.23*	-0.07, 0.45 <sup>a</sup> 0.01, 0.46 <sup>a</sup>
line angle judgment	<b>S:</b> Lippa <i>et al.</i> (2010)	adults: 53 nations (BBC internet survey)	255144		0.49*	0.48, 0.50 <sup>b</sup>
object location memory	<b>MA:</b> Voyer <i>et al.</i> (2007)	over 18 years	NA	70	-0.29 <sup>f</sup>	-0.34, -0.24 <sup>a</sup>

Table S4 contd.

Variable	Study	Sample/measures	N	k	d	CI
object location	S: Silverman et al.	adults: 40 nations (BBC	247516		-0.31*	$-0.32, -0.30^{b}$
memory contd.	(2007)	internet survey)				
MATHEMATIC	CAL ABILITIES (INCLU	UDING MECHANICAL ABILIT	TIES AND SC	IENCE)		
quantitative ability	<b>MA:</b> Hyde (1981)	adolescence to older adults (US)	NA	16	0.43	NA
-	<b>S:</b> Feingold (1988)	DAT norms (US, 1947–1980)	193844		0.05	$0.04, 0.06^{b}$
	<b>S:</b> Feingold (1992 <i>b</i> )	2 US national samples (16–74 years): WAIS, 1955; WAIS-R, 1981 (arithmetic)	3580		0.34	0.27, 0.41 <sup>b</sup>
		2 US national samples (6–14 years): CAT-2 (arithmetic)	140000		0.00	-0.01, 0.01
	<b>S:</b> Strand <i>et al</i> . (2006)	UK representative sample (11–12 years): CAT-3	320000		0.03*	0.03, 0.04 <sup>b</sup>
mathematics	<b>MA:</b> Freeman (1985)	US school and university,	48648	35	0.14	$0.12, 0.16^{a}$
	<b>MA:</b> Hyde <i>et al</i> . (1990)	over 5 years of age	3175188	254	0.15	$0.15, 0.15^{b}$
	<b>S:</b> Feingold (1992 <i>b</i> )	US college entrance: PSAT (1960–1983)	99654		0.31	0.30, 0.32 <sup>b</sup>
		SAT-M (1967)	NA		0.42	NA
	S: Hedges & Nowell (1995)	adolescents (5 US national samples: 1960–1992)	151867		0.16	0.11, 0.21 <sup>a</sup>
		17 years (US, NAEP, 1971– 1992	70000- 100000 per year		0.16 <sup>d</sup>	0.07, 0.25 <sup>a</sup>
	<b>S:</b> Hyde <i>et al.</i> (2008)	7–17 years (school tests, 10 US states)	over 7000000		0.01	0.01, 0.01 <sup>b</sup>
	<b>MA:</b> Else-Quest <i>et al.</i> (2010)	14–16 years: TIMSS 2003 (46 nations) PISA 2003 (46 nations)	219612 273883	46	-0.01 0.11	-0.05, 0.03 0.09, 0.13
	<b>MA:</b> Lindberg <i>et al.</i> (2010)	school, college, and adults worldwide samples	1286350	242	0.05	$-0.05, 0.05^{b}$
	<b>S:</b> Lindberg <i>et al.</i> (2010)	13–18 years (US): NLSY-97 13–14 years (US): NELS-88 12–17 years (US): LSAY 9–17 years (US): NAEP	6044 23648 3065 various		0.08 0.10 -0.07 0.06 <sup>g</sup>	NA NA NA NA
	<b>S:</b> Ball <i>et al.</i> (2013)	annual SAT-M data (US) 1996–2009	19000000		0.31 <sup>d</sup>	0.31, 0.31 <sup>b</sup>
	<b>S:</b> Stoet & Geary (2013)	15 years: 75-nations, PISA: 2000, 2003, 2006, 2009) <sup>h</sup>	1500000		0.09 <sup>d*</sup>	-0.02, 0.19

#### Table S4 contd.

Variable	Study	Sample/measures	N	k	d	CI
mathematics	MA: Voyer & Voyer	marks from elementary	NA	93	-0.07	-0.12, -0.01
(contd.)	(2014)	school to university (70% US)				
	<b>MA:</b> Reilly <i>et al.</i> (2015)	17 years (US): NAEP	104900	6	0.10	0.08, 0.12
	S: Pargulski &	4 to 17 years (US): WAIT–III	2580		0.14	0.06, 0.22
	Reynolds (2017)					
mechanical	<b>S:</b> Feingold (1988)	4 DAT norms (US, 1947–	193844		$0.98^{*}$	$0.97, 0.98^{b}$
reasoning		1980)				
	S: Hedges & Nowell	adolescents: 2 US national	85339		$0.78^{d}$	$0.70, 0.86^{b}$
	(1995)	samples (1960–1992)				
science	S: Hedges & Nowell	adolescents: 3 US national	109938		$0.33^{d}$	$0.29, 0.37^{b}$
	(1995)	samples (1960–1992)				
	S: Hedges & Nowell	17 years: US national samples	70000 to		0.28 <sup>d*</sup>	$0.19, 0.37^{b}$
	(1995)	(NAEP: 1971–1992)	100000			
			per year			
	MA: Voyer & Voyer	marks from elementary	NA	31	-0.15	-0.23, -0.08
	(2014)	school to university (70% US)				
	<b>MA:</b> Reilly <i>et al.</i> (2015)	17 years: US national samples	56437	6	0.13	0.09, 0.18
		(NAEP)				

*Note*. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. See footnote to Table 3 for selection criteria. Comprehensive Meta-Analysis was used for calculating effect sizes where these are not taken from the sources.

Abbreviations: BBC = British Broadcasting Corporation; CAT-3 = Cognitive Abilities Test; CAT-2 = California Achievement Tests; DAT = Differential Aptitude Test; LSAY = The longitudinal Study of American Youth; NA = not available; NAEP = National Assessment of Education (annual national probability samples); NELS-88 = National Education Longitudinal Study of 1988; NLSY-97 = National Longitudinal Surveys of Youth (data for initial year, 1997); PISA = Programme for International Student Assessment; PSAT = Preliminary Scholastic Aptitude Test; PSVT:R = Purdue Spatial Visualization Tests: Visualization of Rotations; SAT-M = Scholastic Aptitude Test-math; TIMSS = Trends in International Mathematics and Science Study; WAIS = Wechsler Adult Intelligence Scale; WAIS-R = Wechsler Adult Intelligence Scale-Revised; WAIT-III = Wechsler Individual Achievement Test – Third Edition.

<sup>&</sup>lt;sup>a</sup> Calculated from standard error or standard deviation or *Z* score in source using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>b</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>c</sup> This test was not included in the previous two meta-analyses involving mental rotation (Linn & Petersen, 1985; Voyer *et al.*, 1995).

<sup>&</sup>lt;sup>d</sup> Means of annual values shown in Table 2 or 3 of Hedges & Nowell (1995) or Table S2 in Stoet & Geary (2013) or Table 2 of Ball *et al.* (2013).

<sup>&</sup>lt;sup>e</sup> The mean value for control and treatment conditions and pre- and post-training in studies involving training of spatial skills, taken from Table 5: treatment effects were very similar for the two sexes.

<sup>&</sup>lt;sup>f</sup> Values calculated from data in Tables 2, 3 and 4 of source.

Table S4 contd.

 $<sup>^{\</sup>rm g}$  Mean weighted d value across all 18 of the main assessments (from source).

<sup>&</sup>lt;sup>h</sup> There are other analyses of parts of these PISA data: for 2009, covering 65 nations, Reilly (2012) gives values of d = -0.44 for reading and d = 0.22 for maths, both higher than the values for this year from Stoet & Geary (2013) for 75 nations.

Table S5. Object-centred orientation (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI
systemizing	<b>S:</b> Manning <i>et al.</i> (2010)	adults: BBC internet survey	170164		1.21*	1.20, 1.22 <sup>a</sup>
(SQ)		(53 nations)				
	S: Svedholm-Häkkinen	Finnish adults	3084		1.04	0.96, 1.11
	& Lindeman (2016)					
occupational	<b>S:</b> Lippa (2008, 2010)	adults: BBC internet survey	200000		$1.39^{*}$	1.38, 1.40 <sup>a</sup>
interests <sup>b</sup>		(53 nations)				
engineering	<b>MA:</b> Su <i>et al.</i> (2009)	ages 12–42 years, interest	503188	45	1.11*	1.01, 1.20
interests		inventories (US)				
interest in	MA: Woodcock et al.	Thing Orientation <sup>c</sup>	7450	15	$0.97^{d}$ *	0.80, 1.15
"things"	(2013)					

*Note*. *N* indicates total number of participants; *k* indicates number of samples in a meta-analysis; *d* indicates Cohen's *d*, which is positive if in the male direction and negative if in the female direction; *CI* indicates 95% confidence intervals.

\* indicates studies that were selected for inclusion in Table 3. See footnote to Table 3 for selection criteria. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

*Abbreviations*: BBC = British Broadcasting Corporation; SQ = Systemizing Quotient (Ling *et al.*, 2009).

<sup>&</sup>lt;sup>a</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>b</sup> Interest in car mechanic, builder, carpenter, electrical engineer, and inventor, compared with interest in costume designer, dance-teacher, school-teacher, florist, and social worker.

<sup>&</sup>lt;sup>c</sup> A measure of Person-Thing Orientation that has separate items for Person and Thing Orientation (Graziano *et al.*, 2011). <sup>d</sup> Calculated from the means, standard deviations, and sample sizes for the 15 samples presented in Table 1 of the source, using CMA (random effects model): some of the resulting *d* values were discrepant from those shown in the source table. The samples were mainly from the US, with two small-sample studies from Greece and Turkey. Some are likely to have been selected, for example, university students studying specific subjects, such as psychology and engineering. The specific values for Person Orientation varied from –0.27 (Greek sample) to –0.82 (sixth-grade US students), and those for Thing Orientation from 0.50 (US third-grade students) to 1.34 (US Introductory Psychology students).

Table S6. Characteristics directly associated with social relations (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI
SOCIAL SKILI	LS AND INTERESTS					
people-things dimension	<b>S:</b> Lippa (1998)	twins (high school)	1678		-1.27 <sup>a</sup>	-1.43, -1.10
	<b>MA:</b> Su <i>et al.</i> (2009)	ages 12 to 42 years, interest inventories (US)	503188	79	-0.93*	-0.99, -0.87
	<b>MA:</b> Woodcock <i>et al.</i> (2013)	Person Orientation <sup>b</sup>	7450	15	-0.48 <sup>c</sup>	-0.53, -0.44
social interests	<b>S:</b> Lippa (1998)	twins (high school)	1678		-1.14 <sup>a</sup>	-1.35, -0.93
	<b>MA:</b> Su <i>et al.</i> (2009)	ages 12 to 42 years, interest inventories (US)	503188	80	-0.68*	-0.74, -0.62
emotional intelligence	MA: Joseph & Newman (2010)	adults: performance-based tasks	2216	14	-0.47*	-0.72, -0.24
face recognition	<b>S:</b> Herlitz <i>et al.</i> (1997)	adult Swedish sample	1000	43	$-0.60^{d}$	-0.66, -0.53
	MA: Herlitz & Lovén (2013)	children and adults	NA		-0.36*	-0.44, -0.29
decoding non- verbal cues	<b>MA:</b> Hall (1978)	preschool to adults (US)	10244	46	-0.34	-0.52, -0.16
	<b>MA:</b> McClure (2000)	facial expression processing: infants children and adolescents	NA	23 80	-0.18 -0.13	-0.33, -0.03 -0.19, -0.07
	<b>S:</b> Sasson <i>et al.</i> (2010)	over 18 years, online sample: facial affect recognition	7320		-0.35 <sup>e</sup>	-0.40,-0.30 <sup>f</sup>
	MA: Thompson & Voyer (2014)	children & adults: emotion recognition	NA	404	-0.27 <sup>g*</sup>	-0.32, -0.23
SOCIAL INTER	RACTIONS IN DYADS (	OR SMALL GROUPS				
peer attachment	MA: Gorrese & Ruggieri (2012)	adolescents and young adults, degree of attachment	21052		-0.51*	-0.59, -0.42
implicit affiliation motivation	MA: Drescher & Schultheiss (2016)	adults	5962	33	-0.45*	-0.53, -0.37
smiling	<b>MA:</b> La France <i>et al.</i> (2003)	adolescents and adults	109654	448	-0.41*	-0.42, -0.39
seek emotional social support	<b>MA:</b> Tamres <i>et al</i> . (2002)	adults, English-speaking nations	2171	12	-0.41*	-0.49, -0.32
disclosure	<b>MA:</b> Belk (1991)	adults (US) self-disclosure	NA	76	-0.27	-0.73, 0.19 <sup>h</sup>
	MA: Dindia & Allen (1992)	to same sex to opposite sex	6264 7320	66 66	-0.37* -0.13	-0.42, -0.32 -0.09, -0.18,
	, ,	overall	23702	205	-0.18	-0.21, -0.16

## Table S6 contd.

Variable	Study	Sample/measures	N	k	d	CI
disclosure	MA: Lundquist	adults, self-disclosure	NA	25	-0.20	-0.27, -0.14
(contd.)	(1993)					
agreeableness	MA: J. Archer	variety of adult samples <sup>i</sup>	572222	10	$-0.29^{i*}$	-0.39, -0.19
	(unpublished data)					
friendship	<b>MA:</b> Hall (2011)	adolescents and young adults:				
expectations		overall	8825	36	$-0.17^*$	-0.22, -0.12
		communion	8245	31	-0.39	-0.44, -0.34
		agency	3470	9	0.34	0.26, 0.42
intimacy in	MA: Lundquist	adolescence to old age	46594	257	-0.11*	$-0.13, -0.09^{h}$
relationships	(1993)	_				
touch initiation	MA: Stier &. Hall	overall	NA	6	$-0.09^*$	NA
	(1984)					
personal space	<b>MA:</b> Daigle (1996)	children and adults	NA	92	$0.08^{*}$	0.04, 0.11
adult	S: Noftle & Shaver	college students, US:	8318			
attachment style	(2006)	anxious			-0.02	-0.06, 0.02
		avoidant			0.00	-0.04, 0.04
	MA: del Giudice	worldwide sample:	65047	112		
	(2011)	anxious			$-0.04^{*}$	-0.07, -0.01
		avoidant			$0.02^{*}$	-0.01, 0.05
		bivariate D for two styles			0.05	NA
	S: del Giudice	college students, US:	8829			
	(2016)	self-reliance			0.15	$0.11, 0.19^{h}$
		closeness discomfort			-0.07	$-0.11, -0.03^{h}$
		preoccupation			-0.13	$-0.17, -0.09^{h}$
		neediness			-0.14	$-0.18, -0.10^{h}$
		reject desire closeness			0.31	$0.27, 0.35^{h}$
ЕМРАТНҮ					T	
empathy	MA: Eisenberg &	US adults: questionnaires	4085	17	$-0.91^*$	$-0.97, -0.85^{\text{h}}$
(various	Lennon (1983)	US children: picture/story	1282	22	-0.11	$-0.22, 0.00^{\rm h}$
measures)		measures				,
		US infants: reflexive crying	339	7	-0.34	$-0.55, -0.13^{\text{h}}$
EQ	<b>S:</b> Manning <i>et al</i> . (2010)	adults, 53 nations, BBC internet survey	170227		-0.87*	$-0.88, -0.86^{h}$
	S: Svedholm- Häkkinen & Lindeman (2016)	Finnish adults	3084		-0.59	-0.67, -0.51 <sup>h</sup>
reading the mind in the eyes	<b>MA:</b> Kirkland <i>et al.</i> (2013)	adults	NA	40	-0.18*	-0.24, -0.12

Variable	Study	Sample/measures	N	k	d	CI
HEI DING DEU	IAVIOUR/COOPERAT	ION				
HELFING BEH	IA VIOUN/COOPENAT	ION				
helping	MA: Eagly &	adults, US and Canada	37308	99	$-0.34^{j*}$	-0.36, -0.32
behaviour	Crowley (1986)					
cooperation	S: Ahlgren &	ages 7 to 18, US	2130		$-0.10^{k}$	-0.19, -0.02
	Johnson (1979)					
	MA: Balliet et al.	adults, mostly US:	2000		0.07*	0.11.0.001
	(2011)	overall	30000	272	$-0.05^*$	-0.11, 0.001
		mixed-sex interactions	NA	90	-0.22	-0.29, -0.15
		same-sex interactions	NA	58	0.16	0.06, 0.25
MORALITY						
MORALITI						
moral norms v.	<b>MA:</b> Friesdorf <i>et al</i> .	young adults	6100	40	-0.57*	-0.62, -0.52
consequences	(2015)					, -:- <del>-</del>
moral self-	MA: Gentile <i>et al</i> .	children and adults	NA	15	-0.38*	-0.48, -0.29
esteem	(2009)					ŕ
cheating	MA: Whitley et al.	US college students:				
_	(1999)	attitudes	6292	14	$0.35^{1*}$	0.32, 0.37
		behaviour	26262	52	$0.17^{l}$	0.16, 0.18
moral	MA: Jaffe & Hyde	children and adults:				
orientation	(2000)	care orientation	12437	160	$-0.28^*$	$-0.32, -0.25^{\text{h}}$
		justice orientation	8138	95	0.19	$0.15, 0.23^{h}$
moral	MA: You et al.	adults	4408	20	$-0.24^*$	$-0.34, -0.14^{\rm f}$
sensitivity	(2011)					
justice-based	<b>MA:</b> Thoma (1986)	children and young adults	6863	56	$-0.21^*$	-0.26, -0.16
moral						
reasoning						
I E A DEDGIND						
LEADERSHIP						
emergence of	MA: Eagly & Karau	US and Canada:				
leaders in	(1991)	task	NA	34	0.41*	0.34, 0.48
groups	(1991)	unspecified	NA	29	0.29	0.24, 0.34
groups		no task (social leadership)	NA	15	$-0.18^*$	-0.29, -0.06
leadership	MA: Eagly et al.	US and Canada:			1.10	
effectiveness	(1995)	overall	NA	76	-0.02	-0.05, 0.02
		self-ratings	NA	34	0.14	0.08. 0.20
		subordinates' ratings		40	-0.12	-0.16, -0.07
	MA: Paustian-	self-ratings	4711	19	0.21	0.09, 0.31
	Underdahl <i>et al</i> .	other ratings	96893	78	-0.12	-0.18, -0.06
	(2014)	overall	101676	99	-0.05	-0.10, -0.00

Variable	Study	Sample/measures	N	k	d	CI
leadership	MA: Eagly &	adults, US and Canada:				
style	Johnson (1990)	democratic vs autocratic style	NA	23	$-0.22^{m*}$	-0.29, -0.15
	MA: Eagly et al.	adults: transformational <sup>n</sup>	NA	44	-0.10	-0.13, -0.08
	(2003)	laissez-faire <sup>n</sup>	NA	16	0.16	0.14, 0.19
		transactional, contingent reward <sup>n</sup>	NA	21	-0.13	-0.17, -0.10
		active management by exception <sup>n</sup>	NA	12	0.12	0.08, 0.16
		passive management by exception <sup>n</sup>	NA	18	0.27	0.23, 0.30
	<b>MA:</b> Hallinger <i>et al.</i> (2016)	instructional (perceptions of school principals by teachers and principals	2000+	40	-0.30	-0.37, -0.21
negotiation outcome	MA: Stuhlmacher & Walters (1999)	adults, US and Canada	3496	53	0.09	0.02, 0.16
	<b>MA:</b> Mazei <i>et al.</i> (2015)	adults	10888	123	0.20	0.11, 0.28
influencing others	MA: Eagly & Carli (1981)	adults, US and Canada	12856	90	0.26°*	0.19, 0.33

Note. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

Abbreviations: BBC = British Broadcasting Corporation; EQ = Empathy Quotient (Baron-Cohen & Wheelwright, 2004; Muncer & Ling, 2006); NA = not available.

<sup>&</sup>lt;sup>a</sup> Calculated from the two r values in Lippa (1998, p.1005), which were combined using CMA (random effects model).

<sup>&</sup>lt;sup>b</sup> A measure of Person–Thing Orientation that has separate items for Person and Thing Orientation (Graziano et al., 2011).

<sup>&</sup>lt;sup>c</sup> Calculated from the means, standard deviations, and sample sizes for the 15 samples presented in Table 1 of the source, using CMA (random effects model): (some of the resulting d values were discrepant from those shown in this table). The samples were mainly from the US, with two small-sample studies from Greece and Turkey. Some are likely to have been selected, for example, university students studying specific subjects, such as psychology and engineering. The specific values for Person Orientation varied from -0.27 (Greek sample) to -0.82 (sixth-grade US students), and those for Thing Orientation from 0.50 (US third-grade students) to 1.34 (US Introductory Psychology students).

<sup>&</sup>lt;sup>d</sup> This was the value calculated from the means and standard deviations in Table 2 of the source. It differs considerably from the value in this table (d = -0.27).

<sup>&</sup>lt;sup>e</sup> Calculated from the means and standard deviations in Table 6 of the source. This d value is lower than that in the text (d = -0.41), as this value excluded neutral faces (N.J. Sasson, personal communication, 14 January 2018).

f Calculated from standard error or Z score in source using equations from Borenstein et al. (2009, p. 52).

<sup>&</sup>lt;sup>g</sup> Mean weighted d value for samples where it was possible to compute a d value: for all reports including where "no difference" was coded as zero, d = 0.17.

#### Table S6 contd.

- <sup>h</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).
- <sup>1</sup> Meta-analysis of 10 studies, one a meta-analysis (Guo *et al.*, 1995), and nine large-sample studies, including multinational ones (Costa *et al.*, 2001, Studies 2 and 3: 26 nations; Lippa, 2008: 53 nations; Schmitt *et al.*, 2008: 55-nations; Vianello *et al.*, 2013: 127 nations, although 80% participants from the US); other studies from the US (Costa *et al.*, 2001, Study 1; Noftle & Shaver. 2006), Germany (Rammstedt, 2007), and English-speaking nations (Soto & John, 2017). Values presented here are mean values weighted by the reciprocal of the variance, random-effects model (Comprehensive Meta-Analysis). The values used for Costa *et al.* (2001) were the means for the six facets listed in their Table 2. See Table S13 for details of these and other sex differences in personality.
- <sup>j</sup> Mean weighted d value for 99 samples where it was possible to compute an effect size; for all reports including those where it was only stated that there was "no difference" (k = 181), the mean was 0.07 (unweighted as variance values were unavailable).
- <sup>k</sup> Calculated from the one-way F value, from Table 1 of the source (i.e. recalculated using the data in this table).
- <sup>1</sup>A positive value indicates more positive attitudes to cheating, or more cheating behaviour, in males.
- <sup>m</sup> d value for samples where it was possible to compute an effect size; for all reports including those where it was only stated that there was "no difference" (k = 28), the mean was -0.34.
- <sup>n</sup> Leadership styles: (1) transformational = a role model who gains the trust and confidence of subordinates (this can be achieved in several ways); (2) laissez-faire = not taking responsibility for managing; (3) transactional, contingent reward = rewarding satisfactory performance; (4) transactional, active management by exception = attends to subordinates' errors to reach standards; (5) transactional, passive management by exception = intervenes only after subordinates' errors become severe.
- $^{\circ}$  d value for 90 samples where it was possible to compute an effect size; for all reports including those where it was only stated that there was "no difference" (k = 148), the mean was -0.16 (neither ds were weighted means). The N was calculated from 90/148 of the total N for all effect sizes in Table 2 of source.

Table S7. Language and related attributes (MA: meta-analysis; S: survey)

Variable	Study	Sample/measures	N	k	d	CI
overall verbal abilities	<b>MA:</b> Hyde (1981)	adolescence to older adults US)	NA	27	-0.27*	NA
	<b>MA:</b> Hyde & Linn (1988)	from 3 years of age	NA	119	-0.11	NA
	<b>S:</b> Feingold (1992 <i>b</i> )	college entrance, US (PSAT)	99654		-0.03	$-0.04, -0.00^{a}$
		college entrance, US (PSAT)	NA		0.01	NA
language ability	<b>S:</b> Feingold (1988)	4 DAT norms: US, 1947–1980	193844		-0.43	$-0.44, -0.43^{a}$
	<b>S:</b> Feingold (1992 <i>b</i> )	2 US national samples, 6–14 years: CAT-2	140000		-0.39	$-0.40, -0.38^{a}$
	<b>MA:</b> Voyer & Voyer (2014)	marks from elementary school to university (70% US)	NA	81	-0.37*	-0.43, -0.32
speech	<b>MA:</b> Hyde & Linn (1988)	from 3 years of age: speech production	NA	12	-0.33*	-0.46, -0.20
	MA: Leaper & Ayres	adults: talkativeness	4385	70	$0.14^{*}$	0.08, 0.19
	(2007)	adults: affiliative speech	2781	54	$-0.12^*$	-0.18, -0.06
		adults: assertive speech	2541	50	-0.09	-0.15, -0.02
	MA: Leaper & Smith	children: talkativeness	3303	73	-0.11	-0.17, -0.05
	(2004)	children: affiliative speech	2694	46	-0.26	-0.33, -0.19
		children: assertive speech	3495	75	-0.11	-0.17, -0.05
	MA: Leaper & Robnett (2011)	adults: tentative speech	3502	39	-0.23*	-0.32, -0.13
	MA: Anderson &	adults: interrupting	3058	53	0.15*	0.07, 0.23 <sup>b</sup>
	Leaper (1998)	adults intrusive interruptions	3058	17	0.33	$0.17, 0.49^{b}$
vocabulary	<b>MA:</b> Hyde & Linn (1988)	from 3 years of age	NA	40	-0.02	-0.06, 0.02
	<b>S:</b> Feingold (1992 <i>b</i> )	US national samples, 6–14 years: WAIS/ WAIS-R CAT-2	3580 140000		-0.04 -0.10*	$-0.07, -0.01^{a}$ $-0.11, -0.09^{a}$
	S: Hedges & Nowell (1995)	adolescents (4 US national)	127268		0.06°	0.02, 0.10 <sup>b</sup>
verbal reasoning	<b>S:</b> Feingold (1988)	US (1947–1980): 4 DAT norms	193844		0.05	0.04, 0.06 <sup>a</sup>
	<b>S:</b> Strand <i>et al.</i> (2006)	UK, representative sample, 11–12 years, CAT-1	320000		-0.15*	$-0.16, -0.14^{a}$
reading	<b>MA:</b> Hyde & Linn (1988)	from 3 years	NA	18	-0.03	-0.04, -0.01
	<b>S:</b> Feingold (1992 <i>b</i> )	US national samples, 6-14 years: CAT-2	140000		-0.21	$-0.32, -0.10^{a}$
	S: Hedges & Nowell (1995)	adolescents (5 US national) US, national probability (NAEP), 17 years	151867 70000– 100000/ year		-0.09° -0.25°	-0.13, -0.05 -0.33, -0.17

Variable	Study	Sample/measures	N	k	d	CI
reading contd.	S: Stoet & Geary	75-nations, 15 years, PISA:	1.5 million		$-0.36^{c*}$	-0.48, -0.24
	(2013)	2000, 2003, 2006, 2009				
	S: Pargulski &	US, 4–17 years, WAIT-III	2345		-0.04	-0.12, 0.05
	Reynolds (2017)					
writing	MA: Hyde & Linn	from 3 years	NA	5	-0.09	-0.10, -0.08
	(1988)					
	S: Hedges &	17 years, US, national	70000-		$-0.57^{c*}$	$-0.72, -0.42^{b}$
	Nowell (1995)	probability: NAEP: 1971–92	100000/			
			year			
	S: Pargulski &	US, 4–17 years, WAIT-III:	2580		-0.25	-0.33, -0.18
	Reynolds (2017)	written expression				
spelling	<b>S:</b> Feingold (1988)	US (1947-1980): 4 DAT	193844		$-0.50^{*}$	$-0.51, -0.49^{a}$
		norms				
	<b>S:</b> Feingold (1992 <i>b</i> )	US national samples, 6–14	140000		-0.42	$-0.43, -0.41^{a}$
		years: CAT-2				

Note. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

Abbreviations: CAT-1 = Cognitive Abilities Test; CAT-2 = California Achievement Tests; DAT = Differential Aptitude Test; NA = not available; NAEP = National Assessment of Education (annual national probability samples); PSAT = Preliminary Scholastic Aptitude Test; PISA = Programme for International Student Assessment; SAT = Scholastic Aptitude Test; WAIS = Wechsler Adult Intelligence Scale; WAIS-R = Wechsler Adult Intelligence Scale-Revised; WAIT-III = Wechsler Individual Achievement Test – Third Edition.

<sup>&</sup>lt;sup>a</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>b</sup> Calculated from standard error or Z score in source using equations from Borenstein et al. (2009, p. 52).

<sup>&</sup>lt;sup>c</sup> Means of annual values (Table 2 or 3: Hedges & Nowell, 1995; or Table S3: Stoet & Geary, 2013). Another analysis of the PISA data for 2009, covering 65 nations, gives a value of d = -0.44 for reading (Reilly, 2012) for 75 nations.

Table S8. Depression and negative emotions (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI
depressive symptoms	<b>S:</b> Meddin (1986)	US, adults: QAL, 1978	2114		-0.50 <sup>a</sup>	-0.84, -0.17
<i>-</i>	<b>S:</b> Kessler <i>et al.</i> (1994)	NCS, major depression: 12-month prevalence lifetime prevalence	8098		-0.32 <sup>b</sup> -0.34 <sup>b</sup>	-0.40, -0.23 -0.41, -0.28
	<b>S:</b> Gater <i>et al.</i> (1998)	WHO study, 15 nations, ICD-10, current status	5438		-0.35 <sup>bc</sup>	-0.45, -0.24
	S: Nolen-Hoeksema et al. (1999)	California, 25 to 75 years	1132		-0.16 <sup>d</sup>	-0.29, -0.04
	<b>S:</b> Daradkeh <i>et al</i> . (2002)	UAE community study: lifetime prevalence	1336		-0.76 <sup>b</sup>	-1.05, -0.48
	MA: Twenge & Nolen-Hoeksema (2002)	US, school ages: 8 to 12 years 13 to 16 years	43916 NA NA	251 86 49	-0.02 0.04 -0.16	-0.04, 0.00 <sup>e</sup> 0.01, 0.07 -0.20, -0.12
	<b>MA:</b> Wang <i>et al</i> . (2016)	Non-clinical samples (BDI)	53049	91	-0.19	$-0.22, -0.16^{e}$
	<b>MA:</b> Salk <i>et al.</i> (2017)	representative national samples from 90 nations	1922064	180	-0.27*	-0.29,-0.26
Major Depression diagnosis	<b>MA:</b> Salk <i>et al.</i> (2017)	representative national samples from 90 nations	1716195	149	-0.34 <sup>f*</sup>	-0.35, -0.34 <sup>f</sup>
sadness	<b>S:</b> Brebner (2003)	students from 41 countries: frequency intensity Australian students: frequency intensity	6868 2199		$-0.23^{g^*}$ $-0.40^g$ $-0.24^g$ $-0.27^g$	-0.28, -0.18 -0.45, -0.35 -0.32, -0.15 -0.36, -0.19
	MA: Chaplin & Aldao (2013)	infancy to adolescence mostly preschool ages	NA	69	-0.06	-0.12, 0.004
rumination	S: Nolen-Hoeksema et al. (1999)	California, 25 to 75 years	1132		-0.26 <sup>h</sup>	-0.38, -0.13
	<b>MA:</b> Tamres <i>et al</i> . (2002)	adults, English-speaking nations	2014	10	$-0.39^{i}$	-0.48, -0.30
	<b>MA:</b> Rood <i>et al.</i> (2009)	children adolescents	1580 <sup>j</sup> 3188 <sup>j</sup>	9 <sup>j</sup> 10 <sup>j</sup>	-0.14 -0.36	-0.15, -0.13 <sup>e</sup> -0.44, -0.28 <sup>e</sup>
	MA: Johnson & Whisman (2013)	adults	14321	59	-0.24*	-0.27, -0.21 <sup>e</sup>
anxiety	<b>S:</b> Kessler <i>et al.</i> (1994)	NCS: 12-month prevalence NCS: lifetime prevalence	8098 8098		-0.43 <sup>b</sup> -0.34 <sup>b</sup>	-0.50, -0.36 -0.40, -0.28
	<b>S:</b> Lewinsohn <i>et al.</i> (1998)	age 16.6 years, OADP: presence/absence disorder anxiety symptom score	1221		-0.47 <sup>b</sup> -0.36 <sup>k</sup>	-0.67, -0.26 -0.47, -0.25
	MA: Abdel-Khalek & Alansari (2004)	students from 10 Arab countries: KUAS	3064	10	$-0.35^{1}$	-0.49, -0.20

Variable	Study	Sample/measures	N	k	d	CI
anxiety	S: Vesga-López et al.	US representative sample,	43093			
contd.	(2008)	NESARC				
		12-month prevalence			$-0.59^{b*}$	-0.67, -0.51
		lifetime prevalence			$-0.37^{b}$	-0.47, -0.27
	MA: Chaplin & Aldao	infancy to adolescence,	NA	33	-0.01	-0.09, 0.07
	(2013)	mostly preschool ages				
social	S: Lustig & Anderson	US students, 40 universities	2735		$-0.16^{k}$	-0.23, -0.18
anxiety	(1990)					
-	MA: Lustig &	from previous reviews	NA	22	-0.19 <sup>m</sup>	-0.27, -0.12
	Anderson (1990)	_				
	<b>S:</b> Caballo <i>et al.</i> (2014)	multinational Spanish-	31112		-0.36*	$-0.38, -0.33^{e}$
		speaking sample: SAQ-A				
neuroticism	MA: J. Archer	variety of adult samples <sup>n</sup>	572222	10	$-0.31^{n*}$	-0.38, -0.24
	(unpublished data)					
negative	<b>S:</b> Brebner (2003)	students from 41 countries:	6868			
emotions		frequency			$-0.21^{g}$	-0.26, -0.16
overall		intensity			$-0.37^{g}$	-0.41, -0.32
		Australian students:	2199			
		frequency			$-0.19^{g}$	-0.27, -0.10
		intensity			$-0.16^{g}$	-0.25, -0.08
	MA: Chaplin & Aldao	infancy to adolescence,	NA	111	0.03*	-0.03, 0.08
	(2013)	mostly preschool				
shame	<b>MA:</b> Else-Quest <i>et al</i> .	mostly adults	NA	232	$-0.29^*$	-0.34, -0.24
	(2012)	early adulthood	NA	116	-0.34	NA
	MA: Chaplin & Aldao	infancy to adolescence,	NA	6	-0.56	-1.01, -0.11
	(2013)	mostly preschool				
guilt	<b>S:</b> Brebner (2003)	students from 41 countries:	6868			
		frequency			-0.03	-0.07, 0.02
		intensity			-0.11	-0.16, -0.06
		Australian students:	2199			
		frequency			-0.04	-0.12, 0.05
		intensity			-0.04	-0.12, 0.05
	MA: Else-Quest <i>et al</i> .	mostly adults	NA	307	-0.27*	-0.32, -0.23
	(2012)	early adulthood	NA	143	-0.32	NA

Note. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Unless otherwise stated, Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

*Abbreviations*: BDI = Beck Depression Inventory; ICD-10 = International Statistical Classification of Diseases, 10<sup>th</sup> revision; KUAS = Kuwait University Anxiety Scale (Abdel-Khalek, 2000); NA = not available; NCS = US National

### Table S8 contd.

Comorbidity Study; NESARC = National Epidemiologic Survey on Alcohol and Related Conditions; OADP = Oregon Adolescent Depression Project (Lewinsohn *et al.*, 1998); QAL, 1978 = Quality of American Life Survey, 1978, Institute of Social Research, University of Michigan; SAQ-A = Social Anxiety Scale for Adults (Caballo *et al.*, 2010); UAE = United Arab Emirates; WHO = World Health Organization.

- <sup>a</sup> Calculated from *d* values shown in Table 1 of source: values for those in traditional and non-traditional divisions of labor were combined using a random-effects model.
- <sup>b</sup> Calculated from proportions in source.
- <sup>c</sup> An identical effect size was derived from the report by Maier *et al.* (1999) based on the same survey.
- <sup>d</sup> Calculated from means and standard deviations in Table 1 of source: values are for T2 (T1 values: d = -0.17 for depression and d = -0.23 for rumination).
- <sup>e</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).
- f Calculated from the Odds Ratio in the source.
- <sup>g</sup> Calculated from means, standard deviations and sample sizes in Table 1 (note that the values in the present table are lower than the ones in the source).
- <sup>h</sup> Calculated from means and standard deviations in Table 1 of source: values are for T2 (T1 values: d = -0.17 for depression and d = -0.23 for rumination).
- <sup>i</sup> Calculated from r value in source.
- <sup>j</sup> Values calculated from figures in Table 1 of source.
- <sup>k</sup> Calculated from *t*-values in source.
- <sup>1</sup> Mean weighted value calculated from the 10 individual means and standard deviations in Table 1 of source (random effects model).
- $^{\rm m}$  Calculated from  $R^2$  value in source.
- <sup>n</sup> See Table S6 footnote i for details of this analysis, and Table S13 for details of these and other sex differences in personality.

Variable	Study	Sample/measures	N	k	d	CI
sociosexuality	<b>S:</b> Schmitt (2005)	48 nations, ISDP (SOI)	14059		$0.80^{a}$	0.76, 0.83 <sup>b</sup>
	<b>S:</b> Lippa (2009)	53 nations, BBC internet survey	200000		0.74 <sup>a*</sup>	0.74, 0.75°
	S: Penke & Asendorpf (2008)	18 to 50 years, online sample, Germany (SOI-R)	2708		0.61 <sup>d</sup>	$0.53, 0.69^{c}$
	<b>S:</b> Cross (2010)	online student sample, UK	3775		0.58	$0.52, 0.64^{c}$
	S: Kennair & Bendixen (2012)	mean age 17 years: online survey, 9 high schools, Norway	1199		0.79 <sup>e</sup>	0.67, 0.91°
	<b>S:</b> Zheng <i>et al.</i> (2014)	representative sample, China	4645		0.64	$0.58, 0.70^{c}$
	<b>S:</b> Kandrik <i>et al.</i> (2015)	online student sample, US	4453		0.52 <sup>f</sup>	0.46, 0.59
pornography use	MA: Petersen & Hyde (2010)	1993–2007	NA	25	0.63*	0.39, 0.85
	S: Petersen & Hyde (2010)	mean from 3 large-scale studies (US & Australia)	23794 <sup>g</sup>		0.46	0.44, 0.49
	S: Kennair & Bendixen (2012)	mean age 17 years: online survey, 9 high schools, Norway	1199		1.79 <sup>h</sup>	1.65, 1.93 <sup>c</sup>
sex drive/ arousal	MA: Murnen & Stockton (1997)	young adults: self-reported arousal to sexual stimuli	8076	62	0.31	0.27, 0.35 <sup>b</sup>
	<b>S:</b> Lippa (2006 <i>a</i> )	self-reported sex drive: US students US adults (internet survey)	1622 1519		0.58	0.48, 0.68°
	<b>S:</b> Lippa (2009)	US adults (internet survey) 53 nations, BBC internet survey	200000		0.82 0.62*	0.71, 0.93° 0.62, 0.63°
masturbation	<b>MA:</b> Oliver & Hyde (1993)	US & Canada (1966–1990), mostly young adults	NA	26	0.96	0.92, 1.00
	MA: Petersen & Hyde (2010)	1993–2007	NA	66	0.53*	0.51, 0.55
	S: Petersen & Hyde (2010)	mean from 3 large-scale studies (US & Australia)	22301 <sup>g</sup>		0.58	0.55, 0.61
casual sex	<b>MA:</b> Oliver & Hyde (1993)	US & Canada (1966–1990), mostly young adults	NA	10	0.81	0.75, 0.87
	<b>S:</b> Schmitt & ISDP (2003)	ISDP, 52 nations: actively seeking short-term mates	16288		0.49 <sup>i*</sup>	0.42, 0.56
	MA: Petersen & Hyde (2010)	1993–2007: incidence attitudes	NA NA	69 10	0.38 0.45	0.37, 0.39 0.39, 0.50
	S: Petersen & Hyde (2010)	mean from 3 large-scale studies (US & Australia)	20794 <sup>g</sup>		0.18	0.16, 0.21
		UK National surveys: attitudes 1990 & 2000	12110 18876		0.45 0.42	0.41, 0.49° 0.39, 0.45°
	S: Kennair & Bendixen (2012)	mean age 17 years: online survey, 9 high schools, Norway: attitudes	1199		0.79	0.76, 0.82°

#### Table S9 contd.

Variable	Study	Sample/measures	N	k	d	CI
number of	MA: Oliver & Hyde	US & Canada (1966–1990),	NA	12	0.25	0.19, 0.32
partners	(1993)	mostly young adults				
	S: Schmitt & ISDP	ISDP, 52 nations: mean	16288		$0.46^{i*}$	0.43, 0.49
	(2003)	number desired over time				
		periods from next month to 30				
		years				
	S: Petersen & Hyde	1993–2007	NA	256	0.36	0.35, 0.36
	(2010)	mean from 7 large-scale	78683 <sup>g</sup>		0.15	0.14, 0.17
		studies (US, UK & Australia)				
perceptions of	MA: La France et al.	seductiveness	3631	28	$0.41^{j*}$	0.26, 0.54
sexual interest	(2009)	promiscuousness	3631	28	$0.32^{j*}$	0.24, 0.39
		flirtatiousness	3631	28	$0.18^{j*}$	0.06, 0.30
mate	S: Schmitt & ISDP	ISDP, 52 nations:	16954			
poaching	(2004)	short-term attempts			$0.46^{i^*}$	0.40, 0.52
		long-term attempts			$0.36^{i^*}$	0.26, 0.45

Note. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes and CIs where these are not taken from the sources.

Abbreviations: BBC, British Broadcasting Corporation; ISDP = International Sexuality Description Project; NA = not available; SOI = Sociosexual Orientation Inventory (Simpson & Gangestad, 1991); SOI-R = Revised Sociosexual Orientation Inventory (Penke & Asendorpf, 2008).

<sup>&</sup>lt;sup>a</sup> Value calculated from means and standard deviations in Table 6 of source; note that this is different from the value shown there (d = 0.74).

<sup>&</sup>lt;sup>b</sup> Calculated from standard error (or standard deviation or Z score) in source using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>c</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p, 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>d</sup> This is the overall value for the SOI-R. The values for its three subscales were: d = 0.06 (behaviour); d = 0.43 (attitude); d = 0.86 (desire). The value for the original SOI in this study was d = 0.27.

<sup>&</sup>lt;sup>e</sup> This is the value for attitudes. As in the study by Penke & Asendorpf (2008) the components of the SOI covering behaviour had a very small sex difference.

<sup>&</sup>lt;sup>f</sup> Calculated from t value in source.

<sup>&</sup>lt;sup>g</sup> Calculated from information in source (Table 5, p. 31).

<sup>&</sup>lt;sup>h</sup> This is the value for frequent exposure to pornography.

<sup>&</sup>lt;sup>i</sup> Mean of *d* values shown in Table 2 or Table 8 of Schmitt & ISDP (2003) or Table 3 of Schmitt & ISDP (2004), weighted by sample size. Note that the values calculated are slightly different from the composite in the second source.

<sup>&</sup>lt;sup>j</sup> Calculated from the r values in source.

Variable	Study	Sample/measures	N	k	d	CI
age difference	<b>MA:</b> Buss (1989)	37 cultures study	10047	37	$-2.00^{a*}$	-2.05, -1.95
	<b>S:</b> Eastwick <i>et al.</i> (2006)	9-nation student sample	3682		-1.74	$-1.82, -1.66^{b}$
	S: Zentner & Mitura	10 nations differing in	3177		-1.43 <sup>c</sup>	-1.79, -1.06
	(2012)	gender parity			17.10	,
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		-1.07	-1.19, -0.95
financial	<b>MA:</b> Buss (1989)	37 cultures study	10047	37	$-0.76^{a^*}$	-0.81, -0.72
prospects						
	<b>S:</b> Eastwick <i>et al.</i> (2006)	9-nation student sample	3682		-0.48	$-0.55, -0.41^{b}$
	S: Zentner & Mitura	10 nations differing in	3177		$-0.81^{c}$	-1.13, -0.49
	(2012)	gender parity				,
	S: Schwarz &	ages 18–65 years, online	21245		$-0.79^{d}$	$-0.82, -0.76^{b}$
	Hassebrauck (2012)	sample, Germany				
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		-0.59	$-0.71, -0.47^{b}$
good looks	<b>MA:</b> Buss (1989)	37 cultures study	10047	37	0.59 <sup>a</sup>	0.55, 0.63
	<b>MA:</b> Feingold (1990)	Questionnaires	19541	28	0.54	$0.51, 0.57^{b}$
		Personal ads	2247	6	0.47	$0.39, 0.55^{b}$
	<b>S:</b> Lippa (2007)	BBC internet survey	200000	53	0.55*	$0.55, 0.56^{b}$
	S: Zentner & Mitura	10 nations differing in	3177		$0.39^{c}$	0.22, 0.56
	(2012)	gender parity				
	S: Schwarz &	ages 18–65 years, online	21245		0.34	$0.31, 0.37^{b}$
	Hassebrauck (2012)	sample, Germany				,
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		0.32	0.20. 0.44 <sup>b</sup>
ambition/ industriousness	<b>MA:</b> Buss (1989)	37 cultures study	10047	37	$-0.50^{a^*}$	-0.54, -0.46
	<b>MA:</b> Feingold (1992 <i>a</i> )	Questionnaires	3174	10	-0.67	-0.74, -0.59
	S: Zentner & Mitura (2012)	10 nations differing in gender parity	3177		-0.56 <sup>c</sup>	-0.66, -0.45
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		-0.21	$-0.33, -0.09^{b}$
social status/ dominance	<b>MA:</b> Buss <i>et al.</i> (1990)	37 cultures study	9474	37	$-0.34^{e^*}$	-0.38, -0.30 <sup>b</sup>
	<b>MA:</b> Feingold (1992 <i>a</i> )	Questionnaires	6830	15	-0.69	-0.74, -0.64
		Personal ads	3089	8	-0.57	$-0.64, -0.50^{b}$
	S: Zentner & Mitura (2012)	10 nations differing in gender parity	3177		-0.47 <sup>c</sup>	-0.70, -0.24
	S: Schwarz & Hassebrauck (2012)	ages 18–65 years, online sample, Germany	21245		-0.52	$-0.55, -0.49^{b}$
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		-0.25	$-0.37, -0.13^{b}$
cook– housekeeper	<b>MA:</b> Buss <i>et al.</i> (1990)	37 cultures study	9474	37	0.56 <sup>e*</sup>	0.52, 0.60 <sup>b</sup>
<b>F</b>	<b>S:</b> Eastwick <i>et al.</i> (2006)	9-nation student sample	3682		0.14	0.07, 0.21 <sup>b</sup>

Variable	Study	Sample/measures	N	k	d	CI
cook-	S: Zentner & Mitura	10 nations differing in	3177		0.09 <sup>c</sup>	0.01, 0.16
housekeeper	(2012)	gender parity				
contd.						
	S: Schwarz &	ages 18–65 years, online	21245		$0.17^{\rm f}$	$0.14, 0.20^{b}$
	Hassebrauck (2012)	sample, Germany				
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		0.06	$-0.06, 0.18^{b}$
chastity	<b>MA:</b> Buss (1989)	37 cultures study	10047	37	0.30 <sup>a*</sup>	0.25, 0.34
	S: Zentner & Mitura	10 nations differing in	3177		0.28 <sup>c</sup>	0.09, 0.48 <sup>b</sup>
	(2012)	gender parity				
	<b>S:</b> Souza <i>et al.</i> (2016)	Brazilian young adults	1186		0.11	-0.01, 0.23 <sup>b</sup>

Note. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes and CIs where these are not taken from the sources.

<sup>&</sup>lt;sup>a</sup> Values taken from a meta-analysis of Buss' data by Archer & Mehdikhani (2003).

<sup>&</sup>lt;sup>b</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CIs* calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>c</sup> Weighted mean for all 10 nations, calculated from the three effect sizes provided for high, medium and low gender-parity nations in Tables 2, 3 and 4 of source (random-effects model).

<sup>&</sup>lt;sup>d</sup> The wording was "wealthy and generous".

<sup>&</sup>lt;sup>e</sup> Calculated from the *r* values in source.

f The wording was "creative and homely".

Table S11. Sexual conflict (MA: meta-analysis;  $\mathbf{S}$ : survey).

Variable	Study	Sample/measures	N	k	d	CI
(1) CEVIIAI VI	OI ENCE (based on victimiz	ation manages unless stated otherw	rvica)			
(1) SEXUAL VI	OLENCE (based on vicumiz	ation reports unless stated otherv	vise)			
rape	<b>S:</b> Koss <i>et al.</i> (1987)	students at 32 US colleges	6159		$0.76^{a}$	0.65, 0.87
	S: Tjaden & Thoennes	US, NVAWS:	16000			
	(1998)	past year			$0.61^{a}$	0.17, 1.05
		lifetime			1.07 <sup>a</sup>	0.99, 1.14
	<b>S:</b> Walby & Allen (2004)	UK, BCS: by partner	19951			
		past year			$2.32^{a^*}$	0.77, 3.86
		since age 16 years			1.23 <sup>a</sup>	1.14, 1.31
	<b>S:</b> Basile <i>et al.</i> (2007)	US, ICARIS-2: lifetime	9684		0.94 <sup>a</sup>	0.82, 1.06
	<b>S:</b> Black <i>et al.</i> (2011)	US, NISVS:	16507			
		past year			$2.82^{a}$	1.29, 4.35 <sup>b</sup>
		lifetime			1.52 <sup>a</sup>	0.41, 1.63 <sup>b</sup>
	S: Krahé & Berger	Germany, 10 universities	2013		$0.35^{a}$	0.18, 0.52
	(2013)	since age 14 years (online)				
	<b>S:</b> Macdowall <i>et al</i> .	UK, ages 16–74 years,	14283		1.12 <sup>a</sup>	1.00, 1.25 <sup>b</sup>
	(2013)	Natsal-3, since age 13 years				
sexual assault/ aggression	<b>S:</b> Koss <i>et al.</i> (1987)	students at 32 US colleges	6159		0.31 <sup>a</sup>	0.21, 0.40
<u> </u>	<b>S:</b> Davidson <i>et al.</i> (2004)	Honolulu, 1990-2001, SATC	NA		1.81 <sup>c</sup>	NA
	<b>S:</b> Walby & Allen (2004)	UK, BCS: by partner	19951			
	-	past year			1.31 <sup>a</sup>	1.04, 1.57
		since age 16 years			1.23 <sup>a</sup>	1.14, 1.31
	S: Sundaram et al.	Danish national samples:				
	(2008)	16–39 years	3932		1.09 <sup>d</sup>	0.90, 1.28
		14–16 years	6185		$0.81^{d}$	0.57, 1.04
	<b>S:</b> Basile <i>et al.</i> (2007)	US, ICARIS-2: past year	9684		$0.57^{a}$	0.38, 0.77
	<b>S:</b> Jansson (2007)	UK, BCS: by partner				
		year	24459		$0.62^{a^*}$	$0.56, 0.67^{\rm b}$
		since age 16 years	24751		1.12 <sup>a</sup>	1.06, 1.17 <sup>b</sup>
	<b>S:</b> Black <i>et al.</i> (2011)	US, NISVS:	16489			
		past year			0.03	$0.00, 0.06^{\rm e}$
		lifetime			$0.57^{a}$	$0.54, 0.61^{b}$
	S: Krahé & Berger	Germany, 10 universities				
	(2013)	since age 14 years (online):				
		overall	2121		$0.47^{a}$	$0.35, 0.58^{b}$
		heterosexual only	1722		0.49 <sup>a</sup>	$0.36, 0.62^{b}$
	<b>S:</b> Krahé <i>et al.</i> (2014)	Nationally representative	2000			
		sample, Czech Republic:			1.0.50	
		lifetime			1.06 <sup>e</sup>	0.64, 1.47

Variable	Study	Sample/measures	N	k	d	CI
perceptions of sexual harassment	<b>MA:</b> Rotundo <i>et al</i> . (2001)	overall	33164	66	-0.30*	-0.30, -0.30 <sup>b</sup>
convictions in rape and child abuse cases	MA: Schutte & Hosch (1997)	simulated studies	9813	36	-0.32*	-0.36, -0.28
(2) AGGRESSIC	ON TO PARTNERS					
verbal	MA: Stockdale <i>et al</i> . (2013)	self-reports	NA	20	-0.25*	NA
physical (any)	<b>MA:</b> Archer (2000)	self-reports	52993	81	-0.12	-0.14, -0.10
		partner-reports	57970	75	$-0.02^*$	-0.03, -0.00
physical (severe)	<b>MA:</b> Archer (2000)	causing injuries	14542	17	0.35 <sup>f</sup> *	0.13, 0.56
	<b>MA:</b> Archer (2002)	beat up	13853	34	0.39g*	0.35, 0.42
		choke/strangle	6645	15	$0.52^{g^*}$	0.47, 0.58
homicide	<b>S:</b> Fox & Zawitz (2012)	US, 1976–2004 (FBI)	NA		$0.65^{\rm h}$	NA
	<b>S:</b> Smith <i>et al.</i> (2014)	US, 2003–2009, 16 states	NA		1.06 <sup>h*</sup>	NA
(3) SEXUAL JE	ALOUSY					
overall	<b>MA:</b> Archer (2013)		12540	11	$-0.20^{i^*}$	-0.36, -0.04
greater upset from sexual <i>vs</i> emotional	MA: Dreznick (2003)	forced-choice	NA	37	0.49	0.45, 0.53
	<b>MA:</b> Harris (2003)	forced-choice	NA	29	$0.60^{j}$	$0.51, 0.70^{g}$
	<b>MA</b> : Sagarin <i>et al</i> . (2012)	continuous choice	NA	45	0.31	0.23, 0.39
	MA: Carpenter (2012)	forced-choice	10632	37	$0.87^{k*}$	0.83, 0.91
	<b>S:</b> Bendixen <i>et al.</i> (2015)	Continuous	1074		0.86	0.80, 0.93 <sup>i</sup>
	(=010)		1		1	1

Note. N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positiveif in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

1074

 $0.89^{1}$ 

 $0.76, 1.02^{j}$ 

forced-choice

Abbreviations: BCS = British Crime Survey; FBI = US Federal Bureau of Investigation; ICARIS-2 = Second Injury Control and Risk Survey (Nationally-representative Health Survey, Center for Disease Control and Prevention); NA = not available; Natsal-3 = third National Survey of Sexual Attitudes and Lifestyles (UK); NISVS = National Intimate Partner and Sexual Violence Survey (National Center for Injury Prevention and Control); NVAWS = National Violence Against Women Survey; SATC = Sex Abuse Treatment Center, Honolulu, Hawaii.

- <sup>a</sup> d values calculated from proportions in source. In the case of Jansson (2007), this was from Figs 3.1 and 3.2.
- <sup>b</sup> Calculated from standard error in source using equations from Borenstein et al. (2009, p. 52).
- <sup>c</sup> Percentage of Chance Encounters in which victim would be female for all victims who received treatment at the centre, converted into a *d* value from Table 1 in Grissom (1994).
- <sup>d</sup> Calculated from incidences and sample sizes in source: this produced more accurate figures than the percentages reported as these were expressed to the nearest whole number.
- <sup>e</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p86); *CI*s calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).
- f This is not the value presented in Archer (2000), which was obtained from proportions *via* DSTAT (*Software for the Meta-analytic Review of Research Literatures:* Johnson, 1989);, since this is likely to be an underestimate (Haddock *et al.*, 1998). The value in this table is the result of a re-analysis using CMA for the same 17 studies shown in Shown in Table 5 of Archer (2000).
- g Recognizing the underestimates in the values calculated from proportions in DSTAT (see above), this source presents several *d* values calculated in different ways (Archer, 2002, Table 3). The one presented is from log Odds Ratios calculated from the study-level proportions, from victim reports, using the formula of Hasselblad & Hedges (1995). This corresponds to the computations used in CMA. Sample sizes are taken from Table 5 of source.
- <sup>h</sup> Percentage of Chance Encounters in which male would be the killer in a representative sample of opposite-sex partner homicide perpetrators, converted into *d* values from Table 1 in Grissom (1994).
- <sup>i</sup> Weighted mean shown in Table 12 of source.
- <sup>j</sup> Log Odds Ratios from p. 105 of source, for the 29 studies that involved heterosexual samples, converted into *d* values and *CI*s using the formula of Hasselblad & Hedges (1995).
- <sup>k</sup> Calculated from the r values and sample size in source.
- <sup>1</sup> Calculated from the means and standard deviations. This d value is slightly higher than that in the source.

 $Significance \ of \ sex \ differences$  Table S12. Evidence for sex differences and similarities in other attributes (MA: meta-analysis; S: survey).

Variable	Study	Sample/measures	N	k	d	CI	
schizotypy	MA: Miettunen &	healthy adults:	41003				
	Jääskeläinen (2010)	physical anhedonia		23	$0.59^{*}$	0.52, 0.66	
		social anhedonia		14	$0.44^{*}$	0.37, 0.50	
		magical ideation		29	$-0.01^*$	-0.08, 0.06	
		perceptual aberration		22	$-0.08^*$	-0.17, -0.00	
body image	MA: Feingold &	body image	81172	144	$0.52^{*}$	$0.51, 0.53^{a}$	
	Mazzella (1998)	self-rated attractiveness	40807	102	0.17	$0.15, 0.19^{a}$	
		physical attractiveness	9187	68	$-0.26^*$	$-0.28, -0.24^{a}$	
simple reaction time	MA: Silverman (2006)	adults: wide age range 15314 73 0.35		0.35 <sup>b*</sup>	0.31, 0.38		
positive	<b>S:</b> Brebner (2003)	students from 41 countries:	6868				
emotions		frequency			$-0.20^{c*}$	-0.29, -0.11	
		intensity			$-0.23^{c}$	-0.39, -0.29	
		Australian students:	2199				
		frequency			$-0.06^{c}$	-0.13, 0.01	
		intensity			$-0.02^{c}$	-0.09, 0.05	
	MA: Chaplin & Aldao	infancy to adolescence	NA	146	-0.08	-0.14, -0.03	
	(2013)	mostly preschool ages					
positive well- being	<b>MA:</b> Wood <i>et al.</i> (1989)	adults, mostly US	NA	85	-0.01	-0.02, 0.00	
dream recall	MA: Schredl & Reinhard	children	4834	15	-0.10	-0.16, -0.04	
	(2008)	adolescents	5725	18	-0.36	-0.46, -0.27	
		young adults	15781	81	$-0.24^*$	-0.29, -0.19	
		middle-aged adults	16250	36	-0.27	-0.33, -0.21	
		older adults	1795	13	-0.24	-0.36, -0.13	
nightmare	MA: Schredl & Reinhard	children	42119	29	-0.03	-0.07, 0.01	
frequency	(2011)	adolescents	35333	20	-0.22	-0.28, -0.16	
		young adults	40162	42	$-0.26^*$	-0.32, -0.21	
		middle-aged adults	61174	19	-0.15	-0.19, -0.10	
		older adults	8351	8	-0.10	-0.26, 0.07	
narcissism	<b>MA:</b> Grijalva <i>et al.</i> (2015)	overall	470841	355	$0.26^{*}$	0.23, 0.28	
		entitlement	44108	44	0.29	0.26, 0.32	
		leadership/authority	44739	40	0.20	0.16, 0.24	
		grandiose/exhibitionism	42460	39	0.04	0.01, 0.08	
coping styles	<b>MA:</b> Tamres <i>et al.</i> (2002)	adults: wishful thinking	1512	11	-0.26 <sup>b*</sup>	$-0.42, -0.10^{a}$	
		problem-focussed, active	6036	22	$-0.26^{b*}$	$-0.29, -0.23^{a}$	
		avoidance	5383	26	$-0.06^{b}$	$-0.11, -0.01^{a}$	
self-esteem	<b>MA:</b> Lirgg (1991)	children & adults: athletic self-confidence	NA	46	0.40	NA	
	<b>MA:</b> Kling <i>et al.</i> (1999)	children & adults: overall	97121	216	0.21	0.19, 0.22	
	<b>S:</b> Kling <i>et al.</i> (1999)	4 large US samples: NCES	48000		$0.10^{d}$	0.04, 0.16	
	<b>MA:</b> Major <i>et al.</i> (1999)	children & adults: overall	82569	226	0.14	0.13, 0.15	
	MA: Pinquart & Sörensen (2001)	older adults: overall	32098	59	-0.08	-0.10, -0.06	

Table S12 contd.

Variable	Study	Sample/measures	N	k	d	CI
self-esteem	MA: Sahlstein & Allen	adults: overall	379217	124	$-0.02^{b}$	-0.02, -0.01
contd.	(2002)	social	39487	51	$0.06^{b}$	0.04, 0.08
		physical appearance	15399	28	$0.41^{b*}$	0.38, 0.45
	MA: Gentile <i>et al</i> .	school ages to adults:				
	(2009)	physical appearance	NA	76	0.35	0.31, 0.40
		athletic	NA	68	0.41	0.36, 0.46
		personal	NA	9	0.28	0.11, 0.45
		behavioural conduct	NA	56	-0.17	-0.28, -0.06
	<b>S:</b> Bleidorn <i>et al.</i> (2016)	48 nations: overall	985937	48	$0.25^{e^*}$	$0.25, 0.25^{a}$
	MA: Zuckerman <i>et al</i> . (2016)	overall	1170935	1148	0.11*	0.10, 0.13
self or life satisfaction	MA: Pinquart & Sörensen (2001)	older adults (life)	79367	176	-0.08	-0.09, -0.06
	<b>MA:</b> Gentile <i>et al</i> . (2009)	school ages to adults (self)	NA	10	0.33	0.18, 0.49
academic self-	<b>MA:</b> Huang (2013)	mostly 11–22 years	68429	247	0.08	0.03, 0.13
efficacy		adults (over 23 years)	NA	21	0.23	0.11, 0.34
self-concept	MA: Wilgenbusch &	school ages, overall:	11918	19	0.24	0.20, 0.28 <sup>a</sup>
•	Merrell (1999)	academic/scholastic	10752	17	0.11	$0.07, 0.15^{a}$
		physical appearance	7873	17	0.37	0.33, 0.41 <sup>a</sup>
		social	7545	11	-0.04	$-0.09, 0.01^{a}$
		athletic	8290	16	0.39	$0.35, 0.43^{a}$
episodic S: Herlitz <i>et al.</i> (1997)		ages 35–80 years	1000			
memory		(Sweden):				
		word recall			$-0.23^{f*}$	-0.36, -0.10
		newly acquired facts			$-0.33^*$	-0.60, -0.06
		activities			$-0.19^*$	-0.48, 0.10
		free recall			$-0.29^*$	-0.52, -0.06
		cued recall			$-0.22^*$	-0.46, 0.02
working	<b>S:</b> Redick <i>et al.</i> (2012)	southern US: operation	5767		$0.09^{*}$	$0.04, 0.14^{a}$
memory		symmetry (spatial task)	5549		$0.26^{*}$	$0.21, 0.31^{a}$
		reading	5068		0.06	$0.00, 0.12^{a}$
learning	MA: Severiens & ten	young adults: achievement	NA	22	$0.19^{*}$	NA
orientation	Dam (1998)	reproduction	NA	22	$-0.18^{g}$	NA
		non-academic	NA	22	0.13	NA
vividness of visual imagery	MA: Richardson (1995)	adults, VVIQ	NA	11	-0.16*	-0.31, -0.02
scholastic	MA: Voyer & Voyer	elementary school to	NA	454	$-0.25^{b*}$	-0.28, -0.23
achievement	(2014)	university ages (70% US)				
abstract	MA: Lynn & Irwing	RPM, 15 nations: adults	9631	10	0.33	0.28, 0.37
reasoning	(2004)	children	60168	15	0.21	0.19, 0.23
<u> </u>	MA: Irwing & Lynn (2005)	RPM, students	20432	22	0.15 <sup>h*</sup>	$0.12, 0.18^{i}$

Table 12 contd.

Variable	Study	Sample/measures	N	k	d	CI
abstract	S: Lynn & Kanazawa	NCDS: age 7 years	14407		-0.08	-0.11, -0.05
reasoning contd	(2011)	11 years	14095		-0.06	$-0.09, -0.03^{a}$
		16 years	11919		0.11	$0.07, 0.15^{a}$
general	<b>S:</b> Herlitz <i>et al.</i> (1997)	Sweden, ages 35–80 years	1000		0.04*	$-0.12, 0.20^{c}$
knowledge						
time judgment	<b>MA:</b> Block <i>et al.</i> (2000)	children and adults	NA	51	-0.06j*	-0.11, -0.01
occupational	MA: Martocchio &	adults	11364	19	$-0.02^{b*}$	-0.06, 0.02 <sup>a</sup>
stress	O'Leary (1989)					
morningness-	<b>MA:</b> Randler (2007)	healthy people	NA	52	$-0.08^{*}$	-0.14, -0.03
eveningness		(morningness)				

*Note.* N = total number of participants; k = number of samples in a meta-analysis; d indicates Cohen's d, which is positive if in the male direction and negative if in the female direction; CI indicates 95% confidence intervals. \* indicates studies that were selected for inclusion in Table 3. Comprehensive Meta-Analysis (CMA) was used for calculating effect sizes where these are not taken from the sources.

Abbreviations: NA = not available; NCDS = National Child Development Study (UK longitudinal study, 50 year follow-up); NCES = National Center for Educational Statistics (US nationally representative); RPM = Raven's Progressive Matrices; VVIQ Vividness of Visual Imagery Questionnaire.

<sup>&</sup>lt;sup>a</sup> Standard error calculated from sample sizes and *d* values using formula from Hedges & Olkin (1985, p. 86); *CI*s calculated from standard error using equations from Borenstein *et al.* (2009, p. 52).

<sup>&</sup>lt;sup>b</sup> Calculated from *r* value in source using CMA.

<sup>&</sup>lt;sup>c</sup> Calculated from means, standard deviations and sample sizes in Table 1 (note that the values in the present table are lower than the ones in the source).

<sup>&</sup>lt;sup>d</sup> Mean of the four values for 17 year olds shown in Table 1 of source.

<sup>&</sup>lt;sup>e</sup> A single-item scale was used in this study.

<sup>&</sup>lt;sup>f</sup> Mean of the four values shown in Table 2 of source.

<sup>&</sup>lt;sup>g</sup> Reproduction orientation involves such characteristics as reliance on memorising, relying on staff to define tasks, over-cautious reliance on details and fear of failure (Severiens & ten Dam, 1998, Table 2)

<sup>&</sup>lt;sup>h</sup> Overall value: a range of values are presented in Table 2 of the source. Examining a funnel plot of studies included in this analysis indicates the likelihood that the value was an overestimate in the male direction owing to the absence of small-sample studies in the female direction.

<sup>&</sup>lt;sup>i</sup> Recalculated as the values in Table 1 of the source appear to be incorrect.

 $<sup>^{\</sup>rm j}$  d value for samples where it was possible to compute an effect size; for all reports including those where it was only stated that there was "no difference" (k = 87), the mean was -0.03.

Table S13. Personality factors: *d* values for sex differences in the Big Five from meta-analysis and large samples.

FACTORS	1	2	3	4	5	6	7	8	9	10
AGREEABLENESS	-0.34	$-0.35^{a}$	$-0.20^{a}$	$-0.24^{a}$	-0.22	-0.18	-0.15	-0.56	-0.33	-0.35
NEUROTICISM	-0.25	$-0.28^{a}$	$-0.22^{a}$	$-0.27^{a}$	-0.49	-0.26	-0.40	-0.41	-0.20	-0.27
EXTRAVERSION	0.10	$-0.07^{a}$	$-0.08^{a}$	0.01 <sup>a</sup>	-0.16	-0.07	-0.10	-0.15	-0.22	-0.21
OPENNESS	0.12	$0.04^{a}$	$-0.16^{a}$	0.12 <sup>a</sup>	0.08	-0.17	0.05	-0.04		0.02
CONSCIENTIOUSNESS	-0.10	$0.04^{a}$	$-0.05^{a}$	-0.01 <sup>a</sup>	-0.28	-0.23	-0.12	-0.30		-0.20

### Samples:

- $1 = \text{Guo } et \, al. \, (1995)$ : meta-analysis of studies involving US participants over 16 years of age (agreeableness: k = 226,
- N = 309266; neuroticism: k = 231, N = 290441; extraversion: k = 156, N = 227559; openness: k = 138, N = 275184; conscientiousness: k = 127, N = 209980). Values are from Table 1 in source. Various measures were used in the analysis.
- $2 = \text{Costa } et \ al. (2001)$ : US adults (N = 1000). From Table 2 in source; measure: NEO-PI-R.
- $3 = \text{Costa } et \ al. \ (2001)$ : college ages from 26 other cultures (N = 10952). From Table 2 in source; measure: NEO-PI-R.
- $4 = \text{Costa } et \ al. (2001)$ : adults from 26 other cultures (N = 10690). From Table 2 in source; measure: NEO-PI-R.
- 5 = Noftle & Shaver (2006): college students, internet survey (N = 8318); measure: NEO-PI-R. ds are converted from r values presented in Table 2 of source, using CMA.
- 6 = Rammstedt (2007): German population sample (N = 2550); measure BFI-10: values calculated from means and standard deviations in Table 2 of source, using CMA.
- 7 = Schmitt et al. (2008): ISDP, 55 nations (N = 17637); measure BFI.
- 8 = Lippa (2008): BBC internet survey (53 nations; N = 196461: this is the lower vale taken from footnote 1); measure IPIP (40 items).
- 9 = Vianello *et al.* (2013): online survey (127 nations, 80% of participants from the US; N = 14348) measure IPIP (50 items). Different values were found using an implicit test.
- 10 = Soto & John (2017): online sample from English-speaking nations (N = 1000): measure BFI-2.

*Abbreviations*: BBC = British Broadcasting Corporation; BFI = Big Five Inventory (44 items); BFI-2 = Big Five Inventory-2 (60 items); BFI-10 = 10–item BFI; IPIP = International Personality Item Pool; CMA = Comprehensive Meta-Analysis; ISDP = International Sexuality Description Project; NEO-PI-R = Revised NEO Personality Inventory.

<sup>&</sup>lt;sup>a</sup> Mean values for the six facets listed in Costa *et al.* (2001), Table 2.

Significance of sex differences