

# Data from meta-analyses on gender similarities

Based on **Gender Similarities Hypothesis**, by Janet Shibley Hyde,  
Department of Psychology, University of Wisconsin-Madison.  
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## Column A

From Hyde paper - each line represents a separate meta-data study  
- see Hyde paper for source reference of original meta-study  
- see Hyde paper for number of separate reported studies in each meta-study (i.e. that go into each line)

## Column B

From Hyde paper - the age of people tested in the original meta-study

## Column C

From Hyde paper - 'd' the difference effect size measure

## Column D

Hyde uses convention of +ve 'd' if males are bigger, -ve 'd' if females are bigger  
This column has explicit statement of whether males or females are bigger for each study aspect

## Column E & F & G

E: Categorisation based on effect size 'd' (see table below)

F: Estimation of the % of each population that is on the far side of the mean of the other population. Calculation assumes male and female populations have normal distributions and equal standard deviations.

G: Stars to indicate where there is more difference (see table below)

### Effect size table - for values of 'd'

<u>lower range of 'd'</u>	<u>Category</u>	<u>% wrong</u>	<u>Stars</u>
0.00	zero (eff.)	50%	
0.10	small	46%	
0.35	moderate	36%	xx
0.65	large	26%	xxx
1.00	very large	16%	xxxx

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<b>Listing of Meta-Analyses</b>	<b>Age</b>	<b>Effect Size 'd'</b>	<b>Greater</b>	<b>Effect Category</b>	<b>Likelihood Wrong</b>	<b>Stars</b>
<b>Cognitive Variables</b>						
Mathematics computation	All	-0.14	female	small	45%	
Mathematics concepts	All	-0.03	female	zero (eff.)	49%	
Mathematics prob solving	All	0.08	male	zero (eff.)	47%	
Reading comprehension	Adolescents	-0.09	female	zero (eff.)	47%	
Vocabulary	Adolescents	0.06	male	zero (eff.)	48%	
Mathematics	Adolescents	0.16	male	small	45%	
Perceptual speed	Adolescents	-0.28	female	small	40%	
Science	Adolescents	0.32	male	small	39%	
Spatial ability	Adolescents	0.19	male	small	44%	
Mathematics self confidence	All	0.16	male	small	45%	
Mathematics anxiety	All	-0.15	female	small	45%	
DAT spelling	Adolescents	-0.45	female	moderate	35%	xx
DAT language	Adolescents	-0.40	female	moderate	36%	xx
DAT verbal reasoning	Adolescents	-0.02	female	zero (eff.)	49%	
DAT abstract reasoning	Adolescents	-0.04	female	zero (eff.)	49%	
DAT numerical ability	Adolescents	-0.10	female	zero (eff.)	47%	
DAT perceptual speed	Adolescents	-0.34	female	small	38%	
DAT mechanical reasoning	Adolescents	0.76	male	large	24%	xxx
DAT space relations	Adolescents	0.15	male	small	45%	
Vocabulary	All	-0.02	female	zero (eff.)	49%	
Reading comprehension	All	-0.03	female	zero (eff.)	49%	
Speech production	All	-0.33	female	small	39%	
Spatial perception	All	0.44	male	moderate	35%	xx
Mental rotation	All	0.73	male	large	25%	xxx
Spatial visualization	All	0.13	male	small	46%	
Spatial perception	All	0.44	male	moderate	35%	xx
Mental rotation	All	0.56	male	moderate	31%	xx
Spatial visualization	All	0.19	male	small	44%	
Progressive matrices	6-14 years	0.02	male	zero (eff.)	49%	
Progressive matrices	15-19 years	0.16	male	small	45%	
Progressive matrices	Adults	0.30	male	small	40%	
Attribution of success to ability	All	0.13	male	small	46%	
Attribution of success to effort	All	-0.04	female	zero (eff.)	49%	
Attribution of success to task	All	-0.01	female	zero (eff.)	50%	
Attribution of success to luck	All	-0.07	female	zero (eff.)	48%	
Attribution of failure to ability	All	0.16	male	small	45%	
Attribution of failure to effort	All	0.15	male	small	45%	
Attribution of failure to task	All	-0.08	female	zero (eff.)	47%	
Attribution of failure to luck	All	-0.15	female	small	45%	
<b>Avg no. of reports per study = 29</b>						
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<u>xx</u>	<u>xxx</u>	<u>xxxx</u>
Avg(d):0.21, small, wrong%: 43%	<b>39</b>	<b>14</b>	<b>18</b>	<b>5</b>	<b>2</b>	<b>-</b>
<i>Proportion</i>		36%	46%	13%	5%	0%
<i>Cumulative</i>		36%	82%	95%	100%	100%

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<b>Listing of Meta-Analyses</b>	<b>Age</b>	<b>Effect Size 'd'</b>	<b>Greater</b>	<b>Effect Category</b>	<b>Likelihood Wrong</b>	<b>Stars</b>
<b><u>Communication</u></b>						
Interruptions in conversation	Adults	0.15	male	small	45%	
Intrusive interruptions	Adults	0.33	male	small	39%	
Talkativeness	Children	-0.11	female	small	46%	
Affiliative speech	Children	-0.26	female	small	41%	
Assertive speech	Children	0.11	male	small	46%	
Self-disclosure (all studies)	na	-0.18	female	small	44%	
Self-disclosure to stranger	na	-0.07	female	zero (eff.)	48%	
Self-disclosure to friend	na	-0.28	female	small	40%	
Smiling	Adols & Adults	-0.40	female	moderate	36%	xx
Smiling: aware being watched	Adols & Adults	-0.46	female	moderate	34%	xx
Smiling: not aware watched	Adols & Adults	-0.19	female	small	44%	
Facial expressions proc. (lower)	Infants	-0.18	female	small	44%	
Facial expressions proc. (upper)	Infants	-0.92	female	large	19%	xxx
Facial expressions proc. (lower)	Child & Adols	-0.13	female	small	46%	
Facial expressions proc. (upper)	Child & Adols	-0.18	female	small	44%	
<b>Avge no. of reports per study = 114</b>						
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<u>xx moderate</u>	<u>xxx large</u>	<u>xxxx very large</u>
Avg(d):0.26, small, wrong%: 41%	<b>15</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>1</b>	<b>-</b>
<i>Proportion</i>		7%	73%	13%	7%	0%
<i>Cumulative</i>		7%	80%	93%	100%	100%
<b><u>Psychological well-being</u></b>						
Self-esteem	All	0.21	male	small	43%	
Self-esteem (lower)	Adolescents	0.04	male	zero (eff.)	49%	
Self-esteem (upper)	Adolescents	0.16	male	small	45%	
Self-esteem	All	0.14	male	small	45%	
Body-esteem	All	0.58	male	moderate	30%	xx
Depression symptoms	8-16 years	0.02	male	zero (eff.)	49%	
Life satisfaction	Adults	-0.03	female	zero (eff.)	49%	
Happiness	Adults	-0.07	female	zero (eff.)	48%	
Life satisfaction	Elderly	0.08	male	zero (eff.)	47%	
Self-esteem	Elderly	0.08	male	zero (eff.)	47%	
Happiness	Elderly	-0.06	female	zero (eff.)	48%	
Coping: Problem focussed	All	-0.13	female	small	46%	
Coping: Rumination	All	-0.19	female	small	44%	
<b>Avge no. of reports per study = 103</b>						
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<u>xx moderate</u>	<u>xxx large</u>	<u>xxxx very large</u>
Avg(d):0.14, small, wrong%: 45%	<b>13</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>-</b>	<b>-</b>
<i>Proportion</i>		54%	38%	8%	0%	0%
<i>Cumulative</i>		54%	92%	100%	100%	100%

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Listing of Meta-Analyses	Age	Effect Size 'd'	Greater	Effect Category	Likelihood Wrong	Stars
<b><u>Social &amp; Personality Variables</u></b>						
Aggression (all types)	All	0.50	male	moderate	33%	xx
Physical aggression	All	0.60	male	moderate	30%	xx
Verbal aggression	All	0.43	male	moderate	35%	xx
Aggression	Adults	0.29	male	small	40%	
Physical aggression	Adults	0.40	male	moderate	36%	xx
Psychological aggression	Adults	0.18	male	small	44%	
Physical aggression	All	0.59	male	moderate	30%	xx
Verbal aggression	All	0.28	male	small	40%	
Aggression - low emotion context	All	0.30	male	small	40%	
Aggression - emotional context	All	0.56	male	moderate	31%	xx
Aggression under provocation	Adults	0.17	male	small	44%	
Aggression neutral conditions	Adults	0.33	male	small	39%	
Aggression - real world (lower)	All	0.30	male	small	40%	
Aggression - real world (upper)	All	0.63	male	moderate	29%	xx
Physical aggression (lower)	All	0.33	male	small	39%	
Physical aggression (upper)	All	0.84	male	large	21%	xxx
Verbal aggression (lower)	All	0.09	male	zero (eff.)	47%	
Verbal aggression (upper)	All	0.55	male	moderate	31%	xx
Indirect aggression (lower)	All	-0.74	female	large	25%	xxx
Indirect aggression (upper)	All	0.05	male	zero (eff.)	48%	
Negotiation outcomes	Adults	0.09	male	zero (eff.)	47%	
Negotiator competitiveness	Adults	0.07	male	zero (eff.)	48%	
Helping behaviour	Adults	0.13	male	small	46%	
Helping, when watched	Adults	0.74	male	large	25%	xxx
Helping, when not watched	Adults	-0.02	female	zero (eff.)	49%	
Sexuality: masturbation	All	0.96	male	large	17%	xxx
Sexuality: attitude to casual sex	All	0.81	male	large	22%	xxx
Sexual satisfaction	All	-0.06	female	zero (eff.)	48%	
Attitude to extramarital sex	All	0.29	male	small	40%	
Arousal to sexual stimuli	Adults	0.31	male	small	39%	
Leadership: Interpersonal style	Adults	-0.06	female	zero (eff.)	48%	
Leadership: Task style	Adults	-0.05	female	zero (eff.)	48%	
Leadership: Democrat v Autocrat	Adults	0.28	male	small	40%	
Leadership: Evaluation	Adults	0.05	male	zero (eff.)	48%	
Leadership: Effectiveness	Adults	-0.02	female	zero (eff.)	49%	
Leadership: Transformational	Adults	-0.10	female	zero (eff.)	47%	
Leadership: Transactional (lower)	Adults	-0.13	female	small	46%	
Leadership: Transactional (upper)	Adults	0.27	male	small	41%	
Leadership: Laissez Faire	Adults	0.16	male	small	45%	
Neuroticism: Anxiety	Adols & Adults	-0.32	female	small	39%	
Neuroticism: Impulsiveness	Adols & Adults	-0.01	female	zero (eff.)	50%	
Extraversion: Gregariousness	Adols & Adults	-0.07	female	zero (eff.)	48%	
Extraversion: Assertiveness	Adols & Adults	0.51	male	moderate	33%	xx
Extraversion: Activity	Adols & Adults	0.08	male	zero (eff.)	47%	
Openness	Adols & Adults	0.19	male	small	44%	
Agreeableness: Trust	Adols & Adults	-0.35	female	small	38%	xx
Agreeableness: Tendermindedness	Adols & Adults	-0.91	female	large	19%	xxx
Conscientiousness	Adols & Adults	-0.18	female	small	44%	
<b>Avg no. of reports per study = 44</b>						
<b>Section Summary</b>	<b>Total</b>	<b>zero (eff.)</b>	<b>small</b>	<b>xx</b> <b>moderate</b>	<b>xxx</b> <b>large</b>	<b>xxxx</b> <b>very large</b>
Avg(d):0.32, small, wrong%: 39%	<b>48</b>	<b>14</b>	<b>19</b>	<b>9</b>	<b>6</b>	<b>-</b>
<i>Proportion</i>		<i>29%</i>	<i>40%</i>	<i>19%</i>	<i>13%</i>	<i>0%</i>
<i>Cumulative</i>		<i>29%</i>	<i>69%</i>	<i>88%</i>	<i>100%</i>	<i>100%</i>

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<b>Listing of Meta-Analyses</b>	<b>Age</b>	<b>Effect Size 'd'</b>	<b>Greater</b>	<b>Effect Category</b>	<b>Likelihood Wrong</b>	<b>Stars</b>
<b><u>Motor Behaviours</u></b>						
Balance	3-20 years	0.09	male	zero (eff.)	47%	
Grip strength	3-20 years	0.66	male	large	27%	xxx
Throw velocity	3-20 years	2.18	male	very large	2%	xxxx
Throw distance	3-20 years	1.98	male	very large	2%	xxxx
Vertical jump	3-20 years	0.18	male	small	44%	
Sprinting	3-20 years	0.63	male	moderate	29%	xx
Flexibility	5-20 years	-0.29	female	small	40%	
Activity level	All	0.49	male	moderate	33%	xx
<b>Avg no. of reports per study = 49</b>						
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<u>xx moderate</u>	<u>xxx large</u>	<u>xxxx very large</u>
Avg(d):0.81, large, wrong%: 22%	<b>8</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>
<i>Proportion</i>		13%	25%	25%	13%	25%
<i>Cumulative</i>		13%	38%	63%	75%	100%
<b><u>Miscellaneous</u></b>						
Moral reasoning: stage	Adols & Adults	-0.21	female	small	43%	
Moral reasoning: justice orientation	All	0.19	male	small	44%	
Moral reasoning: care orientation	All	-0.28	female	small	40%	
Delay of gratification	All	-0.12	female	small	46%	
Cheating behaviour	All	0.17	male	small	44%	
Cheating attitudes	All	0.35	male	small	38%	xx
Computer use: current	All	0.33	male	small	39%	
Computer use: self-efficacy	All	0.41	male	moderate	36%	xx
Job attribute pref: earnings	Adult	0.12	male	small	46%	
Job attribute pref: security	Adult	-0.02	female	zero (eff.)	49%	
Job attribute pref: challenge	Adult	0.05	male	zero (eff.)	48%	
Job attribute pref: physical environs	Adult	-0.13	female	small	46%	
Job attribute pref: power	Adult	0.04	male	zero (eff.)	49%	
<b>Avg no. of reports per study = 82</b>						
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<u>xx moderate</u>	<u>xxx large</u>	<u>xxxx very large</u>
Avg(d):0.19, small, wrong%: 44%	<b>13</b>	<b>3</b>	<b>9</b>	<b>1</b>	<b>-</b>	<b>-</b>
<i>Proportion</i>		23%	69%	8%	0%	0%
<i>Cumulative</i>		23%	92%	100%	100%	100%
<b>Overall Total</b>						
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<u>xx moderate</u>	<u>xxx large</u>	<u>xxxx very large</u>
Avg(d):0.28, small, wrong%: 40%	<b>136</b>	<b>40</b>	<b>64</b>	<b>20</b>	<b>10</b>	<b>2</b>
<i>Proportion</i>		29%	47%	15%	7%	1%
<i>Cumulative</i>		29%	76%	91%	99%	100%

Listing of Meta-Analyses	Age	Effect Size 'd'	Greater	Effect Category	Likelihood Wrong	Stars
<p>This section tracks changes in gender difference / similarities with age.                      If there are differences, are these consistent, or do they emerge and then go away as children grow up?</p>						
<p><b><u>Development - change with Age</u></b></p>						
Maths: complex problem solving	5-10 years	0.00	equal	zero (eff.)	50%	
	11-14 years	-0.02	female	zero (eff.)	49%	
	15-18 years	0.29	male	small	40%	
	19-25 years	0.32	male	small	39%	
Self-esteem	7-10 years	0.16	male	small	45%	
	11-14 years	0.23	male	small	42%	
	15-18 years	0.33	male	small	39%	
	19-22 years	0.18	male	small	44%	
	23-59 years	0.10	male	zero (eff.)	47%	
	> 60 years	-0.03	female	zero (eff.)	49%	
Self-esteem	5-10 years	0.01	male	zero (eff.)	50%	
	11-13 years	0.12	male	small	46%	
	14-18 years	0.16	male	small	45%	
	> 19 years	0.13	male	small	46%	
Depressive symptoms	8-12 years	-0.04	female	zero (eff.)	49%	
	13-16 years	0.16	male	small	45%	
Throwing distance	3-8 years	1.75	male	very large	5%	xxxx
	16-18 years	3.50	male	very large	0%	xxxx
<b>Section Summary</b>	<u>Total</u>	<u>zero (eff.)</u>	<u>small</u>	<b>xx</b> <u>moderate</u>	<b>xxx</b> <u>large</u>	<b>xxxx</b> <u>very large</u>
Avg(d):0.42, moderate, wrong%: 36%	<b>18</b>	<b>6</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>2</b>
<i>Proportion</i>		33%	56%	0%	0%	11%
<i>Cumulative</i>		33%	89%	89%	89%	100%