

TABLE 1.2

DEVELOPMENTAL GENDER DIFFERENCES

PREBIRTH	
MALE	FEMALE
<ul style="list-style-type: none"> • Develops testosterone • Same structural brain first six weeks after conception • “Set” <i>male</i> brain immune to <i>female</i> hormones • Fetus generally more active, restless • <i>Male</i> cortex develops slower • At six weeks in utero sexual identity is determined, and brain changes • At six weeks colossal dose of male hormone changes brain permanently • Brain is more lateral than female’s • Less flexible • Less internalized • Greater idling in brain stem (reptilian brain) • Brain 10 percent larger (mass) than girl’s • Corpus callosum smaller • Produces less serotonin (quieting agent) 	<ul style="list-style-type: none"> • Develops estrogen • Same structural brain first six weeks after conception • “Set” <i>female</i> brain immune to <i>male</i> hormones • Fetus generally less active in womb • <i>Female</i> cortex develops faster • Normal template of human brain appears to be female • Lack of testosterone impact allows brain structure to remain female • Brain is less lateral than male’s • More flexible • Less externalized • Greater idling in cingulate gyrus (limbic system) • Brain mass 10 percent smaller in girls • Corpus callosum larger • Produces more serotonin (quieting agent)
INFANCY	
MALE	FEMALE
<ul style="list-style-type: none"> • Prefers mechanical or structural toys • Looks at objects for shorter, but more active, periods • Gazes at mother half as long as girl does • Motor activity more vigorous than girl’s • At one week, cannot distinguish another baby’s cry from background noise • At four months of age cannot distinguish faces of people in photos • Sensitive to salty foods • Less sensitive to physical sensation on skin • More easily angered • Better narrow vision and depth perception • Superior perception at blue end of color spectrum 	<ul style="list-style-type: none"> • Prefers soft, cuddly toys • Plays with objects for longer periods, but less actively • Play is more sanguine • At one week, able to distinguish another baby’s cry from background noise • At four months of age able to recognize faces of people known in photos • Sensitive to bitter tastes; prefers sweets • More sensitive to physical sensation on skin • More easily saddened • Better peripheral vision • Superior perception at red end of color spectrum • More attuned to sensory input

INFANCY (continued)

TODDLERS	
MALE	FEMALE
<ul style="list-style-type: none"> • Speaks first words later than girls • By age four and a half, 99 percent of speech is comprehensible • Shows greater interest in exploring once standing is mastered • Greater muscle mass already evident by age three • Less able to multitask • Hears better in right ear • Better auditory memory • More likely to ignore voices—even parents • More physically impulsive 	<ul style="list-style-type: none"> • Equal visual skill with either eye • Less tolerant of loud noises • More comforted by soft, cooling words and singing • More able to recognize emotional nuance • 25 percent lower mortality rate than girls • Three times better at reading; reading as auditory activity (superior hearing)
PRESCHOOL AND KINDERGARTEN	
MALE	FEMALE
<ul style="list-style-type: none"> • One-directional, less cross-talk between hemispheres, more focused • Occupies larger space on playground than girls • Playground activities involve more individual running • Playground games rough and vigorous, competitive and aggressive • Playing with blocks, builds high structures likely to topple over • Newcomers to group ignored until they prove their worth and value • Stories filled with excitement and action, ignoring victims 	<ul style="list-style-type: none"> • More cross-talk between hemispheres • More brain as shown by approach to activities • Congregates in groups of other girls in smaller spaces, often huddling together • Playground games are quieter and less active, more cooperative • Playing with blocks, tends to build low and long structures • Newcomers greeted more warmly • Stories pay attention to human dynamics; particular concern with victim’s feelings

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PRESCHOOL AND KINDERGARTEN (continued)

MALE	FEMALE
<ul style="list-style-type: none">• Games involve bodily contact, tumbling, continuous flow of action• Primarily interested in objects and things• Saying good-bye to mom takes approximately thirty seconds• Uses dolls for attack weapons and warfare• More speech problems• Picks same-gender peers for friends• Expresses emotions through action• Less sensitive to social and personal context• Less attention span and empathy	<ul style="list-style-type: none">• Games involve turn taking and indirect competition most of the time• Primarily interested in people and relationships• Saying good-bye to mom takes approximately ninety seconds• Uses dolls for playing out domestic scenes• Fewer speech problems; seems to differentiate sounds better• Picks same-gender peers for friends• Expresses emotions through words• More sensitive to social and personal context• Greater attention span and empathy

GRADES 1-3

MALE	FEMALE
<ul style="list-style-type: none">• Takes longer to attain reading mastery• Superior at certain visual tasks in bright light• Better at test requiring circling of answers• Hypothalamus functions to keep hormonal levels even• Better general math• Better at three-dimensional reasoning• More rule-bound than girls• 95 percent of hyperactive children• More able to separate emotion from reason	<ul style="list-style-type: none">• Reads better and sooner than boys• Superior at seeing in low light• Superior at hearing• Better at test requiring listening to questions being read• Hypothalamus functions to fluctuate hormone levels• Better verbal ability• Better at grammar and vocabulary• Less bound by arbitrary rules• Only 5 percent of hyperactive children• Less able to separate emotion from reason

GRADES 4-6

MALE	FEMALE
<ul style="list-style-type: none">• Hormones begin to increase at age ten• Primarily focused on action, exploration, and things• More likely than ever to use aggression to resolve differences• Better at reading maps and deciphering directions• Better at chess	<ul style="list-style-type: none">• Affected by hormone changes earlier than boys• Primarily focused on relationships and communication• Unlikely to settle differences with hitting• Better at fine-motor skills and coordination for fine tasks• Better at learning a foreign language

GRADES 4-6 (continued)

MALE	FEMALE
<ul style="list-style-type: none">• More likely to need remedial reading• Solves math problems without talking• Channel surfs on TV	<ul style="list-style-type: none">• More likely to sing in tune• Solves math problems with language help• Watches one program for longer period

MIDDLE SCHOOL

MALE	FEMALE
<ul style="list-style-type: none">• Testosterone develops body at ratio of 40 percent protein to 15 percent fat• Testosterone indisputably an aggression-inducing chemical• When talkative in class, often attention-seeking• 50 percent more likely to be held back a grade than eighth-grade girls• Amount of male hormone relates directly to success at traditional male tasks• More likely to be victim of physical abuse	<ul style="list-style-type: none">• Estrogen develops body at ratio of 23 percent protein to 25 percent fat• Estrogen generates greater activity in the brain (first phase of menstruation, increased concentration)• When quiet in class, often confident• 50 percent less likely to be held back a grade than eighth-grade boys• Amount of female hormone relates directly to success at traditional female tasks• More likely to be victim of sexual abuse• Hypothalamus functions to fluctuate levels based on a twenty-eight-day cycle

HIGH SCHOOL

MALE	FEMALE
<ul style="list-style-type: none">• Concentration on things directed at career considerations• Focus on strength and muscularity for sexual attractiveness (fearing weakness)• Social acceptance based on physical strength and athleticism• More likely to be involved in criminal behavior• In one study 69 percent of males suggested "fighting" as best way to resolve conflict• Social hierarchies tend to be stable (boys "know their place")• Pursuit of power a universal male trait• Achieves far greater academic success after puberty• IQ scores rise dramatically between fourteen and sixteen	<ul style="list-style-type: none">• Concentration on more intimate personal relationships• Focus on slender appearance for sexual attractiveness (fearing obesity)• Social acceptance based on peer relationships and beauty• Less likely to be involved in criminal behavior• In one study 69 percent of females suggested "walking away or talking things out as the best way to resolve conflict"• Social hierarchies tend to be fluid• Pursuit of comfortable environment a universal female trait• Higher-than-normal estrogen level produces certain intellectual disadvantages

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HIGH SCHOOL (continued)

MALE

- Boys with XXY chromosomal pattern (an extra female chromosome) do less well at spatial reasoning
- Bullies still popular among peers
- Jocks slightly more sexually active than male peers
- If involved in high school athletics, more likely to get better grades and go to college (also more likely to drink and try drugs)
- More likely to succeed at suicide
- 83 percent of students in advanced placement computer science classes
- Steroid use increasing among teenage boys
- Matriculated (graduated) at lower levels than girls in high school and college
- Less likely than girls to suffer episode of clinical depression
- Performance on writing examinations less affected by biological cycles

FEMALE

- IQ scores level off or drop during middle school but rise again at high school
- Girls with higher-than-normal level of testosterone better at spatial reasoning
- Bullies among girls unpopular
- Jocks less likely to be sexually active than girl peers
- Less likely to become pregnant if involved in school activities
- More likely unsuccessful at suicide attempt
- 17 percent of students in advanced placement computer science classes
- Steroid use among girls up 100 percent since 1991
- Outmatriculated boys in recent years in both high school and college
- Almost 50 percent of girls in one survey experienced at least one episode of clinical depression within five years of high school graduation
- Performance on writing exams drops by as much as 14 percent during menstrual cycle
- Outperform men in tests of verbal and communication skills

Gurian, Michael, Patricia Henley and Terry Trueman. *Boys and Girls Learn Differently! A Guide for Teachers and Parents*. San Francisco: Wiley-Jossey-Bass, 2001.

aliens, monsters, horror stories
hero stories (usually fantasy or war-related)
war, violence, drugs
“thug”/fighting/gun stories
war and military situations that involve guns/ammo or equipment such as jets, planes, tanks, trucks
accidents and injuries
mistakenly hurting someone else
something awful that has happened in their life
teams, sports, and the feeling of confidence they get from sports
dislike for school and/or certain mean teachers they feel have misunderstood them
driving cars or snowmobiles, dirt bikes, four-wheelers
places they know, trips, pets, collections
video games, movies, cartoon-related stories (DragonBallZ)
fiction stories—Captain Underpants–like and superheroes
popular movie figures, typically action figures
activity with their fathers: fishing, hunting, sports events
actual adventures with friends in which parents were not around
(meeting a moose on the way to school, snowball fights)
adventure parks (waterslides, roller coasters, thrill rides)
toys and electronic games (Power Rangers, Batman, etc.)
a physical challenge
tough characters juxtaposed with softer characters
fantasy worlds (often stems out of popular literature)
grandiose ideas that seem big enough for a two- to three-hour feature film or a seven-hundred-page novel
rescue vehicles (helicopters and fire engines)
robots, fighting and destroying evil characters, etc.
computer/video games

Anyone who has worked with boys will recognize these topics. The writing about such subjects tends to be heavy on action and conflict. In general it will not be very introspective, ruminative, or deep in character analysis. Looking at this list, it occurs to me how often aggression and violence (blood, fighting, attacking, killing) are a part of these topics. Stripped of violence and physical conflict, they would be lifeless indeed.

Fletcher, Ralph. *Boy Writers: Reclaiming Their Voices*. Portland: Stenhouse, 2006.

Verbatim replies Fletcher received when he surveyed teachers about what their boys like to write about.