

Part Two: Individual Behavior in Organizations

7 Gender Differences Controversy

00:35:22:22 --:--:--:--
[kids shouting indistinctly]

00:35:24:08 --:--:--:--
- Ask any kid.

00:35:25:03 --:--:--:--
Boys and girls are different.

00:35:26:18 --:--:--:--
- What do girls like?

00:35:27:22 --:--:--:--
- Girls like to use makeup.

00:35:29:02 --:--:--:--
- What do you think boys like?

00:35:30:15 --:--:--:--
- Trucks and video games.

00:35:31:24 --:--:--:--
- But where do these differences
come from?

00:35:33:24 --:--:--:--
Are they hard-wired
into the brain

00:35:35:16 --:--:--:--
from the moment of birth?

00:35:36:25 --:--:--:--
or are they taught,

00:35:37:27 --:--:--:--
reinforced by a culture
filled with stereotypes

00:35:40:05 --:--:--:--
of girls dreaming
of that perfect doll,

00:35:42:02 --:--:--:--
boys playing with trucks
and guns?

had fired a shot heard
round the academic world.

00:36:08:27 --:--:--:--
crowd: We vote no!

00:36:09:28 --:--:--:--
- MIT biology professor
Nancy Hopkins was so offended,

00:36:12:13 --:--:--:--
she walked out
of the conference.

00:36:14:03 --:--:--:--
- When you send this message
that maybe it's in your genes,

00:36:16:20 --:--:--:--
you're asking women to come
to work every day

00:36:18:23 --:--:--:--
and prove over and over
and over,

00:36:20:12 --:--:--:--
"Yes, I really am good enough
to be here."

00:36:22:10 --:--:--:--
And that is exhausting.

00:36:23:18 --:--:--:--
- I thought those ideas
were very antiquated,

00:36:25:22 --:--:--:--
but apparently they're not.

00:36:27:05 --:--:--:--
- At Barnard College,

00:36:28:10 --:--:--:--
an ivy League all-womens
school in New York--

00:36:30:13 --:--:--:--
a school where about 1/3
of graduates

00:36:32:07 --:--:--:--

get science degrees,

00:36:33:12 --:--:--:--

these young organic chemistry
students were outraged.

00:36:35:28 --:--:--:--

- Of course he's obviously wrong

00:36:37:15 --:--:--:--

because there's women scientists
everywhere.

00:36:39:20 --:--:--:--

- The fact is, women
are well-represented

00:36:41:20 --:--:--:--

in certain scientific fields
like medicine.

00:36:43:24 --:--:--:--

Half the graduates

00:36:44:23 --:--:--:--

of the nation's medical schools
are women,

00:36:46:23 --:--:--:--

but it's also true
that in certain sciences,

00:36:48:26 --:--:--:--

like physics and engineering,

00:36:50:12 --:--:--:--

women fill only
a tiny fraction of all jobs.

00:36:52:13 --:--:--:--

- We're not seeing enough women
move up

00:36:54:09 --:~:~:~:~:~

into the ranks
of senior scientists.

00:36:56:03 --:~:~:~:~:~

Something is happening
to turn them off.

00:36:58:01 --:--:--
- What that something might be,
nature or nurture,

00:37:00:13 --:--:--
is at the heart of the debate.

00:37:01:26 --:--:--
It's nurture,
says Judith Shapiro,

00:37:03:19 --:--:--
president of Barnard.

00:37:04:25 --:--:--
What makes girls turn off
to science?

00:37:06:19 --:--:--
- If we have stereotypes

00:37:07:27 --:--:--
about what girls can
and can't do,

00:37:09:17 --:--:--
they operate by having girls
themselves believe it.

00:37:11:29 --:--:--
There's been research
for a long time now

00:37:13:27 --:--:--
that shows that people
reading the identical article,

00:37:16:12 --:--:--
scientific article,
let's say,

00:37:18:01 --:--:--
will rate it higher

00:37:19:03 --:--:--
if they think a man
has written it

00:37:20:22 --:--:--:--
than if they think
a woman has written it.

00:37:22:20 --:--:--:--
And what's really upsetting

00:37:24:03 --:--:--:--
is that female and male readers
both will respond this way.

00:37:26:22 --:--:--:--
- But then there's
the nature side of the equation.

00:37:29:02 --:--:--:--
Take, for example,

00:37:30:04 --:--:--:--
the fact that a much
higher number of boys

00:37:32:02 --:--:--:--
get perfect scores
on the math portion

00:37:33:28 --:--:--:--
of standardized tests
like the SAT.

00:39:25:19 --:--:--:--
- The real issue,

00:39:26:18 --:--:--:--
and the issue that the president
of Harvard was addressing,

00:39:29:09 --:--:--:--
is, why are there more men
at the highest end

00:39:31:10 --:--:--:--
of mathematical ability
than women?

00:39:33:04 --:--:--:--
- At the University
of California, Irvine,

00:39:35:05 --:--:--:--
psychologist Richard Hier's
findings

00:39:37:01 --:--:--:--
show striking differences

00:39:38:13 --:--:--:--
in the way that male
and female brains work.

00:39:40:14 --:--:--:--
- Now, can these differences
be related

00:39:42:11 --:--:--:--
to other cognitive
or mental differences,

00:39:44:12 --:--:--:--
like mathematical ability?

00:39:45:25 --:--:--:--
It's not much of a stretch.

00:39:59:09 --:--:--:--
- Men and women,
Haier has found,

00:40:00:28 --:--:--:--
use different parts
of their brains

00:40:02:21 --:--:--:--
to solve problems.

00:40:03:23 --:--:--:--
For men,
the smarter they are,

00:40:05:09 --:--:--:--
the more gray matter they have
and use.

00:40:07:05 --:--:--:--
Women use their white matter,

00:40:08:20 --:--:--:--
connecting different parts
of the brain,

00:40:10:20 --:--:--:--
but solve problems equally well.

00:40:12:09 --:--:--:--
- These women are just
as intelligent as these men,

00:40:14:19 --:--:--:--
but they seem to accomplish this

00:40:16:06 --:--:--:--
with even less brain tissue.

00:40:17:19 --:--:--:--
So this suggests
there's something

00:40:19:12 --:--:--:--
about the woman's brain
that's more efficient.

00:40:21:19 --:--:--:--
- Four, three,
two, one.

00:40:22:07 --:--:--:--
- At the National Institutes
of Health in Bethesda, Maryland,

00:40:25:01 --:--:--:--
Dr. Jay Giedd has been mapping
the development

00:40:27:05 --:--:--:--
of the adolescent brain
for 13 years

00:40:28:28 --:--:--:--
using the most advanced
MRI imagining processes

00:40:31:06 --:--:--:--
to peer into the brains
of twins.

00:40:32:25 --:--:--:--
- In identical twins,

00:40:34:01 --:--:--:--

this part of the brain
would look more alike

00:40:36:02 --:--:--:--
than in fraternal twins.

00:40:37:11 --:--:--:--
- He's in searsch of answers

00:40:38:23 --:--:--:--
to some of the age-old questions
about boys and girls

00:40:41:05 --:--:--:--
and their
intellectual development.

00:40:43:01 --:--:--:--
- The male brain is about 10%
larger than the female brain.

00:40:45:17 --:--:--:--
- So far, Giedd's 4,000 scans
of more tha 2,000 brains

00:40:47:28 --:--:--:--
haven't begun to answer
the big questions

00:40:49:28 --:--:--:--
about nature versus nurture.

00:40:51:13 --:~:~:~:~:~
He has, however, mapped
different development paths

00:40:53:27 --:~:~:~:~:~
in the brains of girls
and boys.

00:40:55:14 --:~:~:~:~:~
- In general, we think
that the girls' brains

00:40:57:17 --:~:~:~:~:~
are maturing a bit faster
than the boys' brains.

00:40:59:24 --:~:~:~:~:~
- But not in all areas.

00:41:01:01 --:--:--:--

- Certain parts of the brain
involved in mechanical skills

00:41:03:22 --:--:--:--

or projectile estimations

00:41:05:04 --:--:--:--

actually mature somewhat faster
in boys.

00:41:07:02 --:--:--:--

- Other scientific studies
have also found

00:41:09:03 --:--:--:--

that boys seem to be more aware
of motion

00:41:11:00 --:--:--:--

and spatial relationships.

00:41:12:13 --:--:--:--

But when it comes
to the senses,

00:41:14:00 --:--:--:--

girls are way ahead
of the game.

00:41:15:17 --:--:--:--

Scientists believe
their eyes

00:41:17:04 --:--:--:--

are more finely attuned
to color and texture,

00:41:19:08 --:--:--:--

that they have a more developed
sense of smell and hearing.

00:42:02:01 --:--:--:--

- Girls and boys differ
profoundly in how they hear,

00:42:04:12 --:--:--:--

how they see,
how they respond to stress,

00:42:06:10 --:--:--:--
and those differences
are present at birth.

00:42:08:13 --:--:--:--
Oh, here we go.

00:42:09:10 --:--:--:--
- Dr. Leonard Sax,

00:42:10:14 --:--:--:--
a psychologist
and family practitioner,

00:42:12:14 --:--:--:--
says both boys
and girls are short-changed

00:42:14:15 --:--:--:--
if we neglect
gender differences.

00:42:16:07 --:--:--:--
- That by the age of 12,

00:42:17:12 --:--:--:--
the geometry area
of a girl's brain

00:42:19:04 --:--:--:--
looks like an eight-year-old
boy's brain.

00:42:21:05 --:--:--:--
They're four years behind.

00:42:22:17 --:--:--:--
The language area
in the boy's brain

00:42:24:10 --:--:--:--
is three to four years behind
the language areas

00:42:26:17 --:--:--:--
of the girl's brain.

00:42:27:21 --:--:--:--
- In fact, in his book,

Why Gender Matters,

00:42:39:12 --:--:--:--
Dr. Sax argues that to
ignore gender differences

00:42:41:20 --:--:--:--
puts us at risk
of perpetuating them.

00:42:43:14 --:--:--:--
- If you teach the same subjects
in the same way

00:42:45:18 --:--:--:--
to girls and boys,

00:42:46:19 --:--:--:--
in other words,
if you ignore gender,

00:42:48:13 --:--:--:--
by the age of 12,

00:42:49:11 --:--:--:--
you're gonna have girls who
think they can't do geometry

00:42:51:26 --:--:--:--
and boys who hate to read
and write

00:42:53:16 --:~:~:~:~:~
and think poetry
is a total waste of time.

00:42:55:14 --:~:~:~:~:~
- But, cautions Dr. Sax,

00:42:56:22 --:~:~:~:~:~
different rates of development
shouldn't be confused

00:42:59:07 --:~:~:~:~:~
with innate ability.

00:43:00:14 --:~:~:~:~:~
- The fact that a boy
prefers a truck over a doll

00:43:02:18 --:--:--:--
doesn't mean he's gonna be
a better physicist

00:43:04:22 --:--:--:--
than the girl who just wants

00:43:06:00 --:--:--:--
to stare at something
very interesting,

00:43:07:28 --:--:--:--
whether it be a truck
or a doll.

00:43:09:14 --:--:--:--
Physics is not necessarily
about trucks accelerating

00:43:11:29 --:--:--:--
or things exploding.

00:43:13:04 --:--:--:--
That's just the way
you were taught physics.

00:43:15:07 --:--:--:--
Physics is about contemplating
our universe.

00:43:17:11 --:--:--:--
- And did you calculate
your input force.

00:43:19:09 --:--:--:--
- In Rochelle Barry's
seventh grade class

00:43:21:00 --:--:--:--
in suburban New York,

00:43:22:05 --:--:--:--
students are enthusiastic
about their science projects,

00:43:24:24 --:--:--:--
boys and girls alike.

00:43:25:29 --:--:--:--
- Can you try to tighten this?

00:43:27:12 --:--:--:--

- Have you in any way
ever felt discouraged

00:43:29:12 --:--:--:--

to pursue math and science?

00:43:30:24 --:--:--:--

- No, I really haven't.

00:43:32:00 --:--:--:--

I just enjoy it.

00:43:32:28 --:--:--:--

I don't really care that much

00:43:34:11 --:--:--:--

about whether there's more boys
than me that are good at it

00:43:36:29 --:--:--:--

or more girls than me
that are good at it.

00:43:38:26 --:--:--:--

- But the boys think they might
have a slight edge in science.

00:43:41:17 --:--:--:--

- Why do you think there aren't
as many women

00:43:43:18 --:--:--:--

in science as there
are men today?

00:43:45:08 --:--:--:--

- Women used to be discourage
from jobs like that,

00:43:47:16 --:~:~:~:~:~

and it kind of
just, like, stuck,

00:43:49:05 --:~:~:~:~:~

but it's changing.

00:43:50:07 --:~:~:~:~:~

all: ♪ S-C-I-E-N-C-E ♪

00:43:51:09 --:--:--:--

- There's no doubt
there are differences

00:43:53:07 --:--:--:--

between boys and girls.

00:43:54:15 --:--:--:--

Science is bearing that out.

00:43:55:28 --:--:--:--

But so far,
the evidence seems to indicate

00:43:57:28 --:--:--:--

that the reason there
are so few women working

00:44:00:04 --:--:--:--

in some scientific fields
has a lot more

00:44:02:01 --:--:--:--

to do with attitudes
than aptitudes.