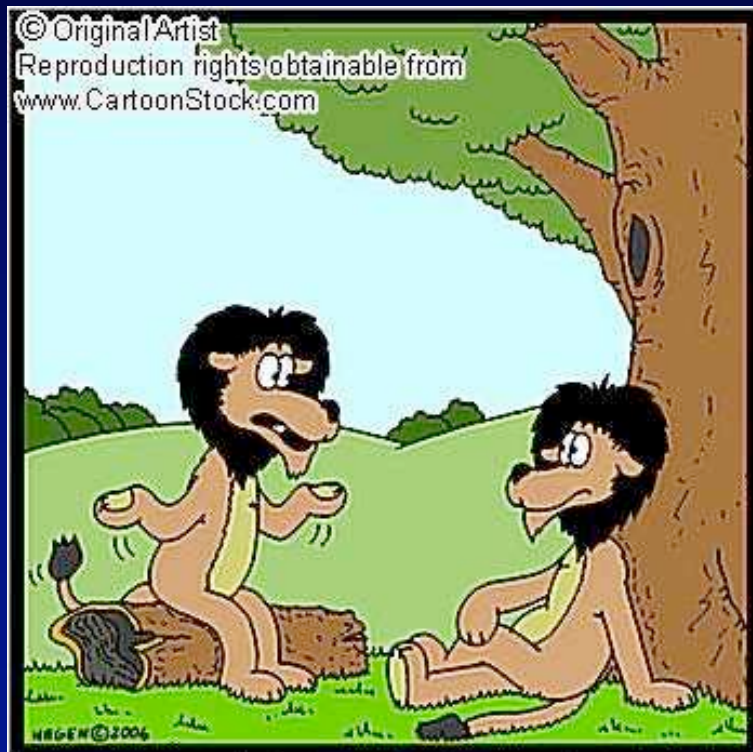


Sex & Gender



Protection and food used to be enough, but now,
they want romance and time for themselves as well...
What are we to do?

GENDER



Masculine



Feminine

Sex vs. Gender

Sex: either of the two major forms of individuals that occur in many species and that are distinguished respectively as female or male

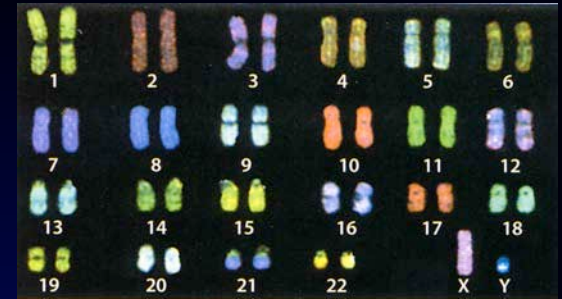
- based on type of gonad/gamete produced

Gender: the behavioral, cultural, or psychological traits typically associated with one sex

Merriam-Webster online

Sex Types ?

- Genotype
- Brain
- Gonadal Type
- Internal Ducts
- External Genitalia
- Phenotypic Sex
- Behavioral Type
- Legal Sex



Evolution of Gender

- Anisogamy gives rise to different mating types
 - (+ / -) (female/male)
- Recognition of opposite type has advantages
 - chemical (pheromones)
 - visual signals
 - secondary sex characters
 - coloration, horns, behavioral display



Gender or Sex Symbols?



GENDER



Masculine



Feminine

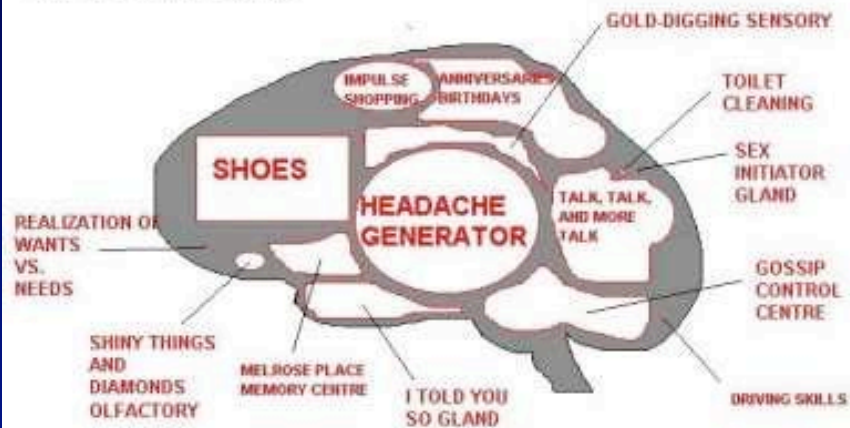
What ~~gender~~ ^{sex} is this keyboard?



"Last century scientists split the atom. This century Ari Zagnoev split the keyboard"
Australian PC World

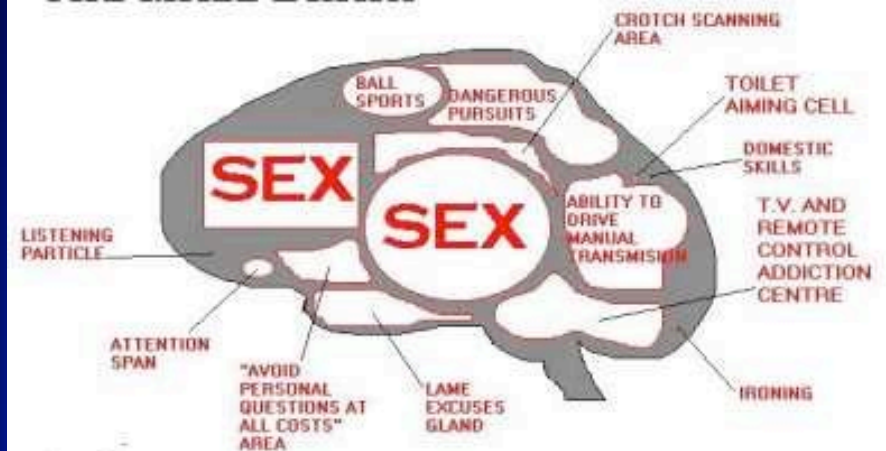
Gender or Sex?

THE FEMALE BRAIN



FOOTNOTE: The "Put Oil into the Car" and "Be Quiet During the Game" glands are active only when the "SHINY THINGS AND DIAMONDS" Olfactory has been satisfied or when there is a shoe sale.

THE MALE BRAIN

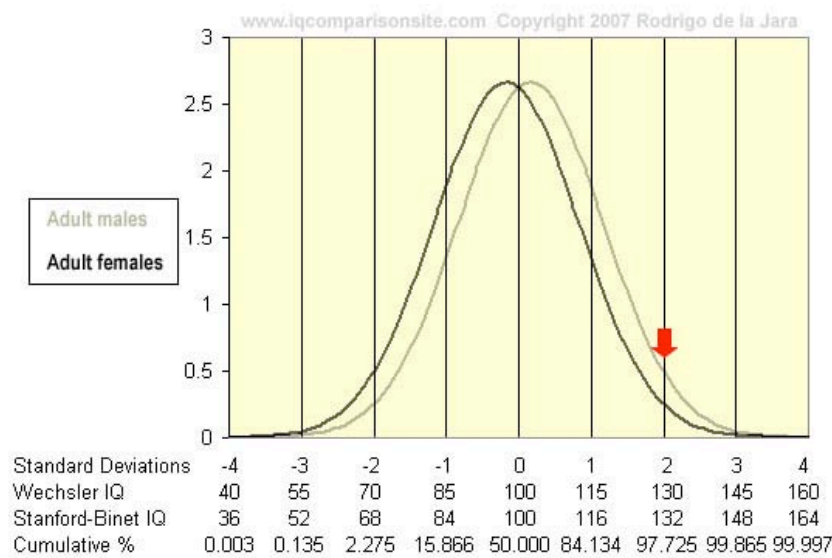


FOOTNOTE: the "Listening to children cry in the middle of the night" gland is not shown due to its small and underdeveloped nature. Best viewed under a microscope.

IQ - Sex or Gender or Culture Differences?

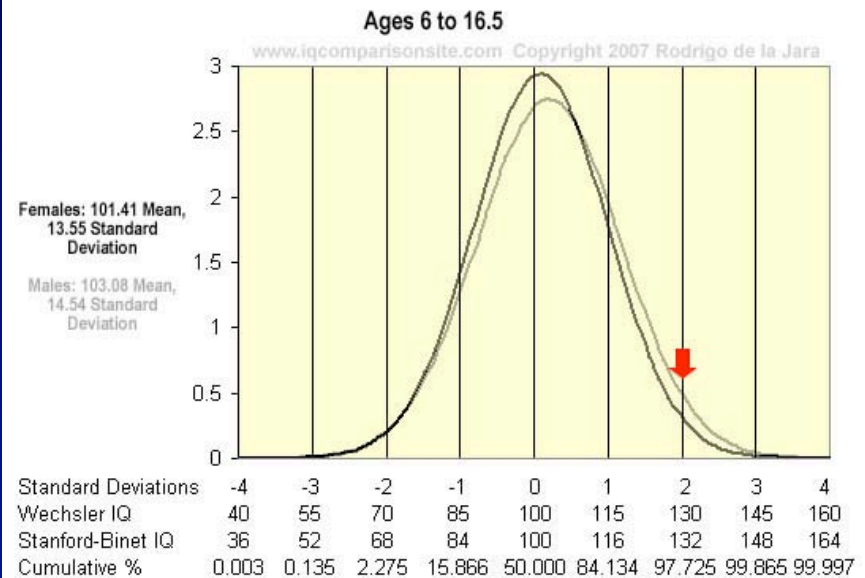
<http://www.iqcomparisonsite.com/SexDifferences.aspx>

Adult Sex Differences on the Raven Progressive Matrices



Jensen & Reynolds (1983),
Personal. Individ. Diff. 4, 223-226.

Sex differences on the WISC-R



Lynn & Irwing (2004).
Intelligence 32, 481-498.

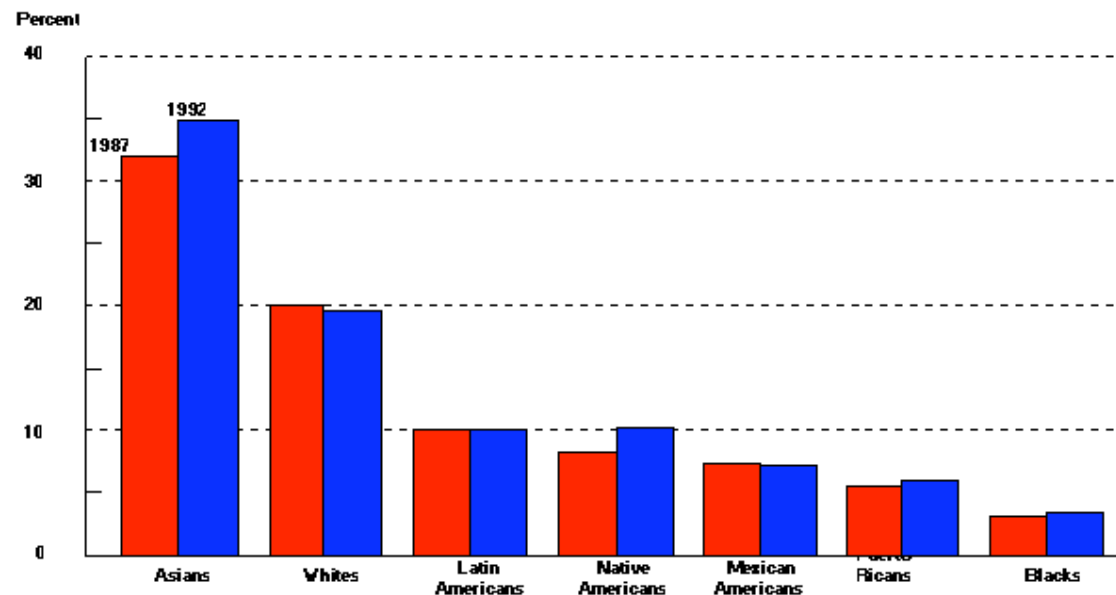
Conclusion

<http://www.iqcomparisonsite.com/SexDifferences.aspx>

- Male and female mean IQs are about equal below the age of 15 but males have a higher mean IQ from age 15 on.
- The effect of sex differences in IQ is largest at the high extreme of intelligence.
- Since many of the more prestigious roles in society are associated with high IQ, the lack of female representation in these roles may be partially due to fewer females being competitive at the highest levels.
- This does not mean that females should not be given equal opportunity to demonstrate their abilities as this would create an worsened artificial 'glass ceiling'.

Another form of testing IQ?

Figure 1-9
Students who scored 600 or more on the math SAT



See appendix tables 1-19 to 1-23.

Science & Engineering Indicators - 1999

I.Q. fundamentalist

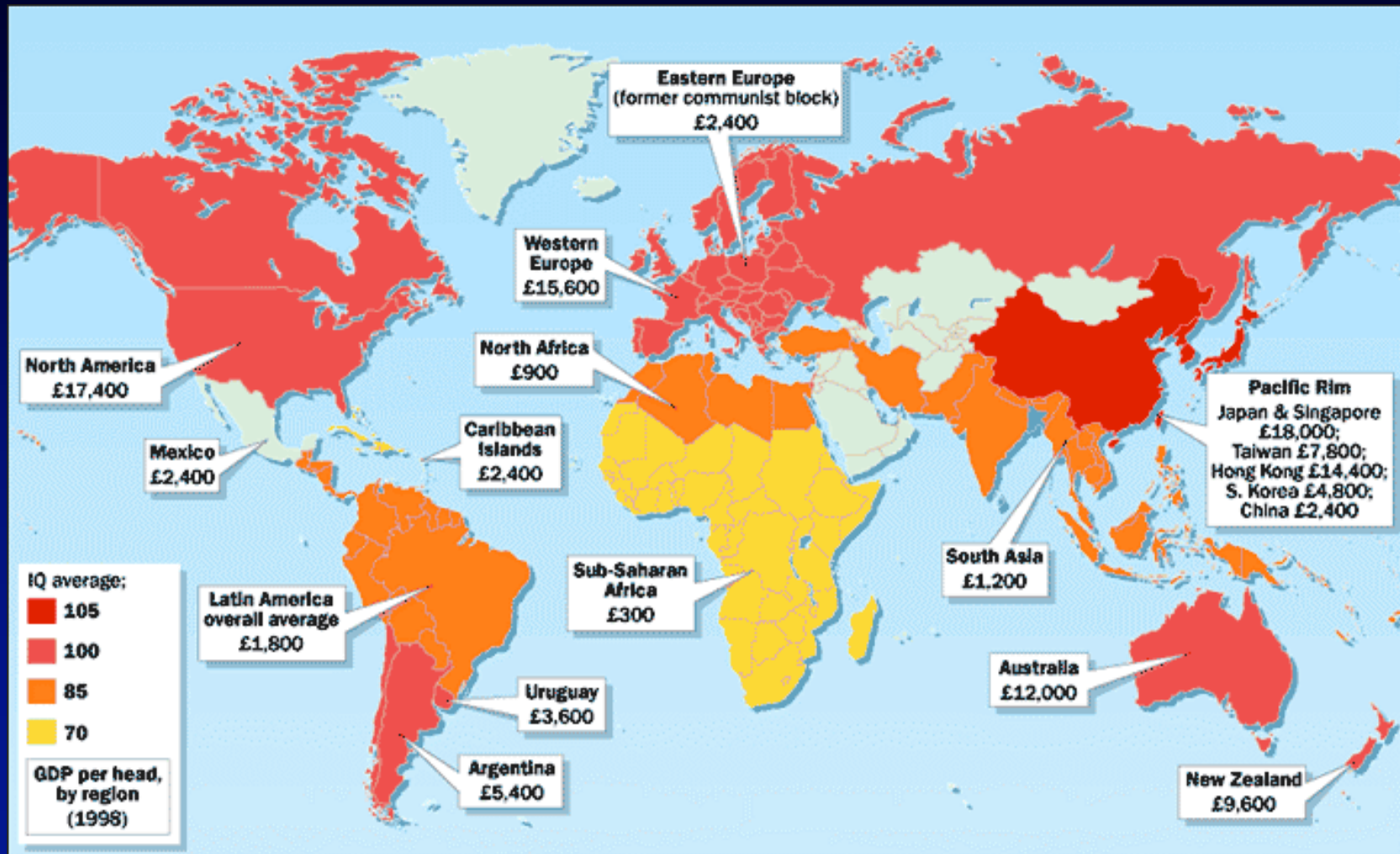
- two things are beyond dispute:
- 1) I.Q. tests measure hard and identifiable traits that predict the quality of ones thinking
- 2) this trait(s) is stable
 - that is
 - it is determined by our genes
 - and largely impervious to environmental influences.

James Watson



- Recently suggested that black people are less intelligent than white people.
- he said he was "inherently gloomy about the prospect of Africa" because "all our social policies are based on the fact that their intelligence is the same as ours - whereas all the testing says not really". He went on to say that his hope is that everyone is equal, but that "people who have to deal with black employees find this not true".
- He believes it is all 'in our genes'but some/many of us in the scientific community do NOT!

IQ and GDP per head



<http://alfin2100.blogspot.com/2006/06/visual-correlations-poverty-corruption.html>

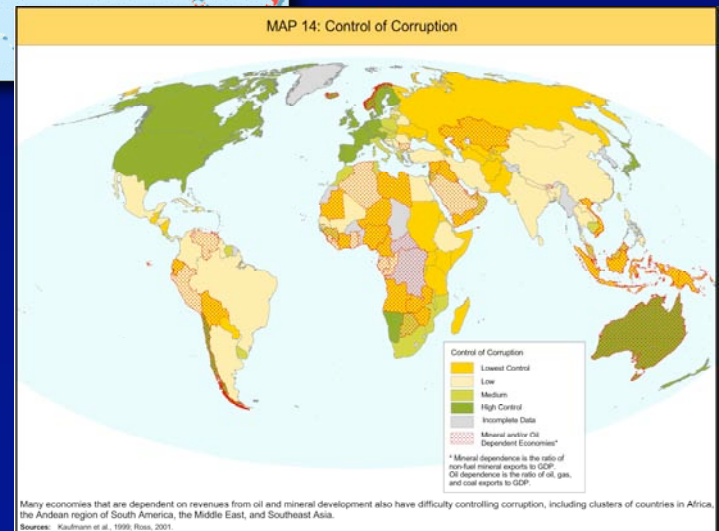
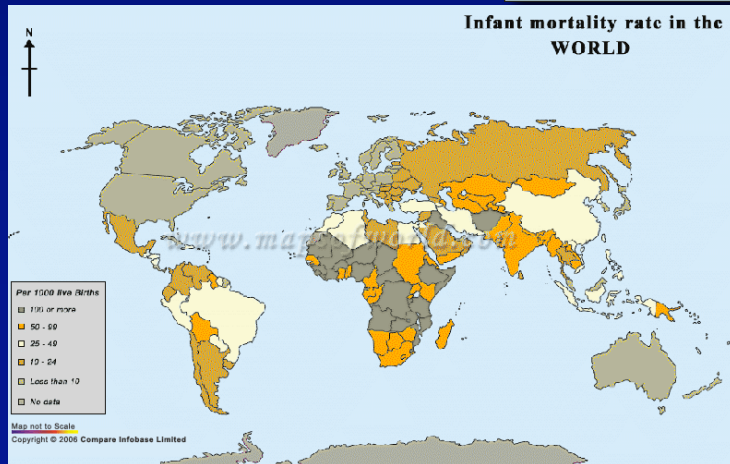
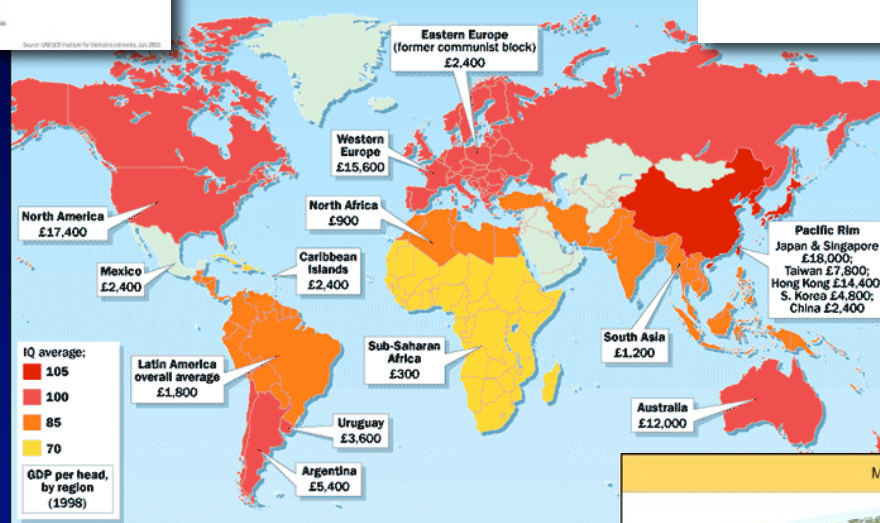
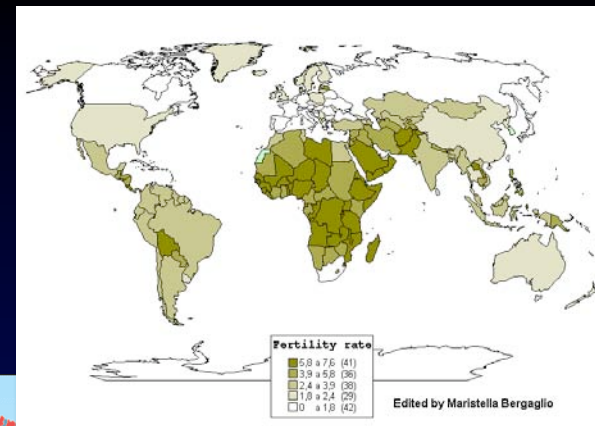
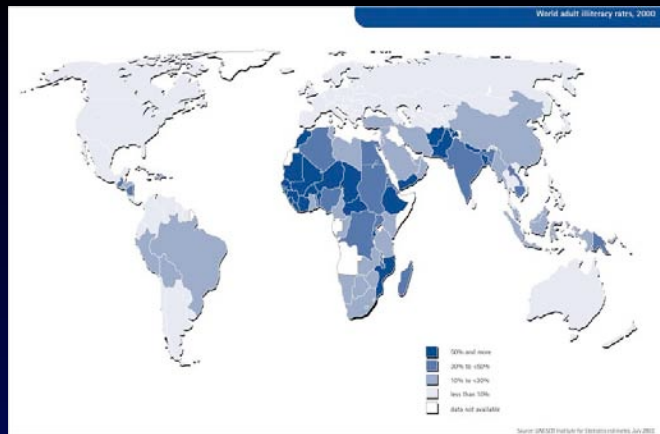




Chart 1

Average Differences Among Blacks, Whites, and Orientals

Trait	Blacks	Whites	Orientals
Brain Size:			
Cranial capacity	1,267	1,347	1,364
Cortical neurons (millions)	13,185	13,665	13,767
Intelligence:			
IQ test scores	85	100	106
Cultural achievements	Low	High	High
Reproduction:			
2-egg twinning (per 1000 births)	16	8	4
Hormone levels	Higher	Intermediate	Lower
Sex characteristics	Larger	Intermediate	Smaller
Intercourse frequencies	Higher	Intermediate	Lower
Permissive attitudes	Higher	Intermediate	Lower
Sexually transmitted diseases	Higher	Intermediate	Lower
Personality:			
Aggressiveness	Higher	Intermediate	Lower
Cautiousness	Lower	Intermediate	Higher
Impulsivity	Higher	Intermediate	Lower
Self-concept	Higher	Intermediate	Lower
Sociability	Higher	Intermediate	Lower
Maturation:			
Gestation time	Shorter	Longer	Longer
Skeletal development	Earlier	Intermediate	Later
Motor development	Earlier	Intermediate	Later
Dental development	Earlier	Intermediate	Later
Age of first intercourse	Earlier	Intermediate	Later
Age of first pregnancy	Earlier	Intermediate	Later
Life-span	Shortest	Intermediate	Longest
Social organization:			
Marital stability	Lower	Intermediate	Higher
Law abidingness	Lower	Intermediate	Higher
Mental health	Low	Intermediate	Higher

Source: Unabridged edition, *Race, Evolution, and Behavior* (p. 5).



An Alternate Viewpoint



- IQ tests, as a rule, don't just measure a person's innate intelligence
- intelligence researchers know the tests are skewed by a person's
 - 1) socio-economic status
 - 2) whether they were malnourished as a child
 - 3) the quality of their education
 - 4) whether they perceive the test as a threat
 - 5) how much experience they have of similar tests.

Flynn Effect - IQ



- psychologist James Flynn
 - IQ is as much a barometer of society and education as it is a measure of intelligence.
- I.Q.s around the world appeared to be rising by 0.3 points per year, or three points per decade,
 - for as far back as the tests had been administered.
- American born
 - 1930's I.Q. = 100,
 - 1955's (his/her children) I.Q.s = 108,
 - 1980's (his/her grandchildren) I.Q.s = 120
 - more than a standard deviation higher

Flynn Effect - Part 2



- Reverse direction,
- teen-ager 2005, I.Q. = 100,
- grandparents 1940 I.Q.s = 82
 - seemingly below the threshold necessary to graduate from high school.
- go back even farther
 - schoolchildren 1900: IQ = 70,
 - Thus, a century ago the USA was populated largely by people who today would be considered mentally retarded...**Absolutely NOT.**
- If what I.Q. tests measure is immutable and innate,
 - what explains the Flynn effect
 - steady rise in scores across generations?

New Yorker Article

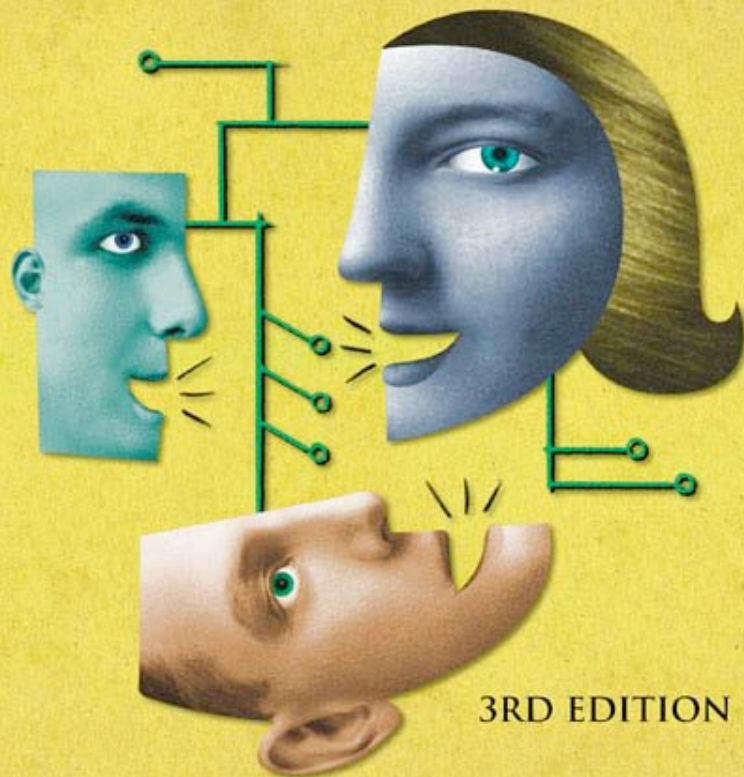
Flynn effect

- None of the Above
- *What I.Q. doesn't tell you about race.*
- by Malcolm Gladwell
- December 17, 2007

STUDIES IN
LANGUAGE &
LINGUISTICS

WOMEN, MEN AND LANGUAGE

JENNIFER COATES



3RD EDITION

John Gray, Ph.D.

With a New Introduction by the Author

#1 New York Times Bestseller

MEN Are from MARS, WOMEN Are from VENUS

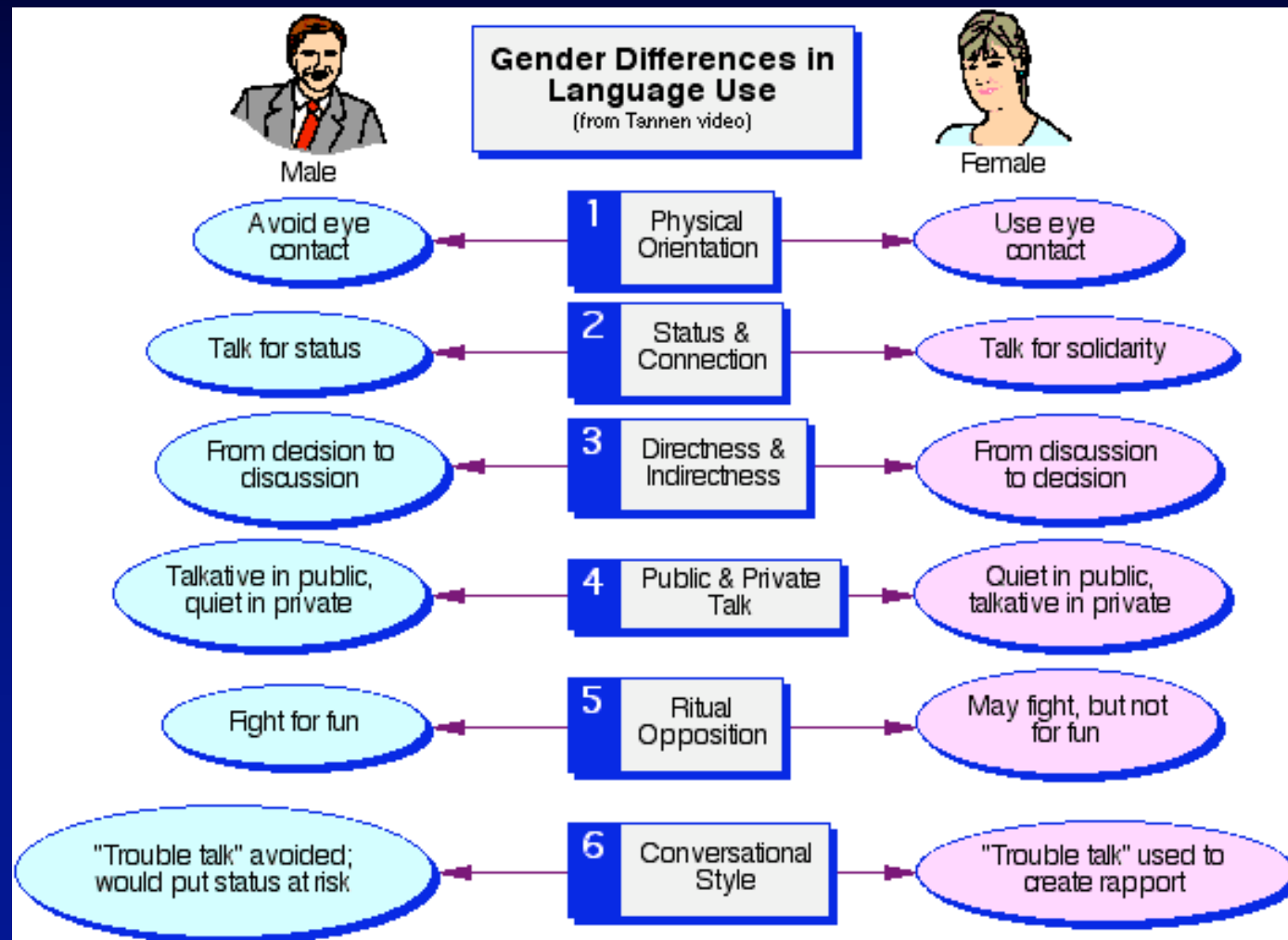


First
time ever in
paperback!

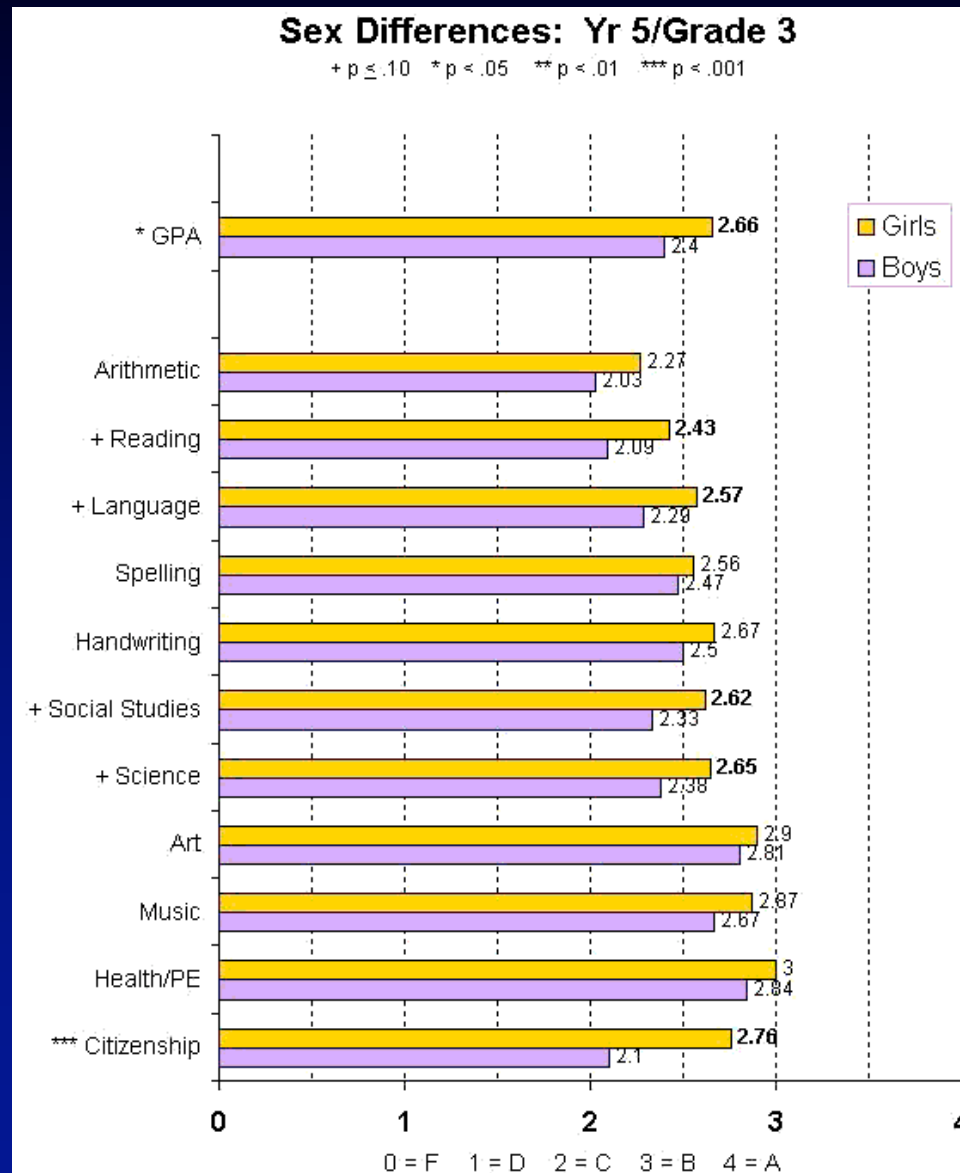


The Classic Guide to
Understanding the Opposite Sex

Gender and Language?

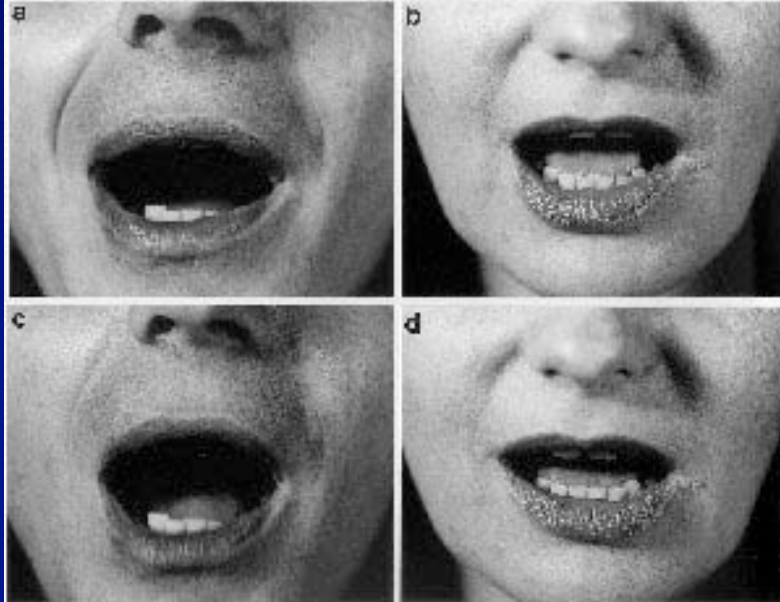


Sex or Gender differences?



Communication - Gender or Sex?

- Gender or Sex barriers?
 - woman speaks between 22,000 and 25,000 words/day
 - freely mixing logic and emotion, features of both sides of the brain
 - man speaks between 7,000 and 10,000 words/day
 - linear, logical and compartmentalized left-brain thinking



Time, Gender & Sex?

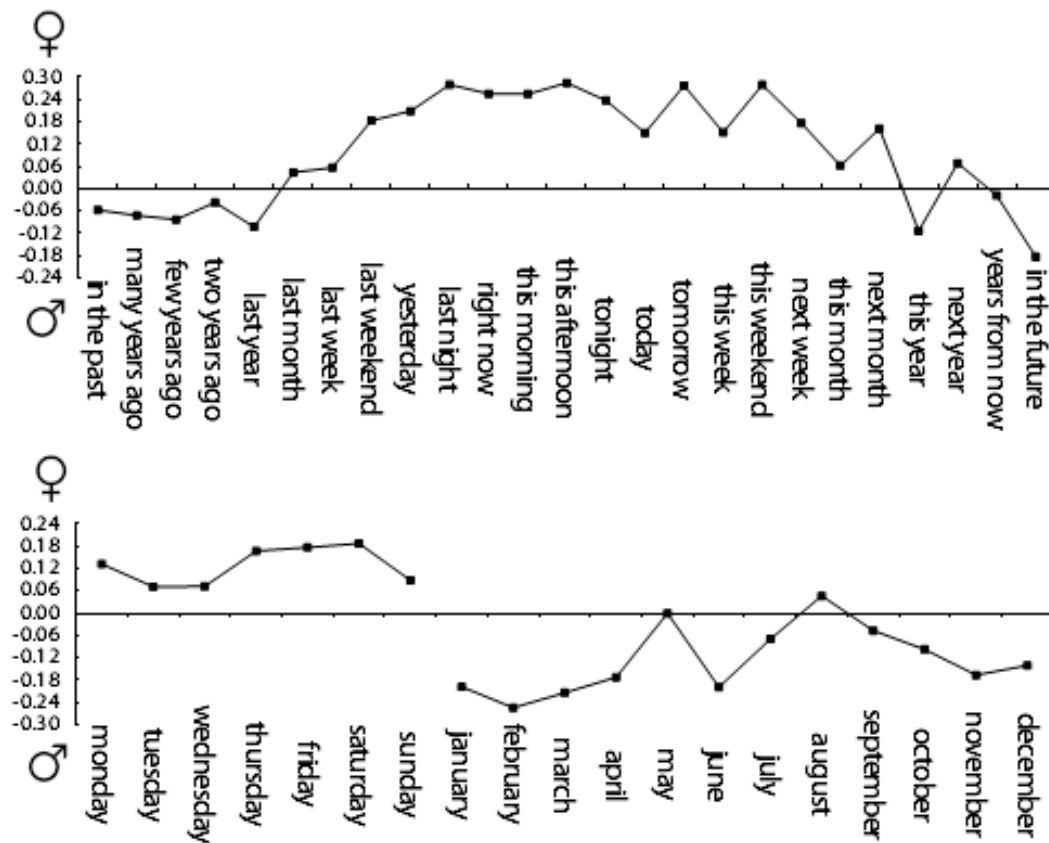


Fig. 1: Men are from march, women are from this weekend: the role of time in feminine and masculine writings

Language and Gender or Sex

Original: Twelve years ago a consortium of clinicians and scientists published a landmark paper evaluating male reproductive health and the environment (Toppari et al, 1996). This paper has stimulated research and informed clinical practice for over a decade. In writing the paper, careful attention was paid to reports of declining quality of semen in humans and subsequent effects on male fertility on an international scale. Results from laboratory studies were reviewed and compared with human outcomes. The analysis also considered changes in male reproductive effects influenced by environmental factors in wildlife. Such a comprehensive approach helped elucidate those areas of male reproductive health that were most likely to have been affected by environmental factors. This study also pointed up the importance of life stage to adverse environmental outcomes, earlier exposure often having a lasting effect.

Keywords: twelve years ago [a] consortium of clinicians [and] scientists published [a] landmark paper evaluating male reproductive health [and] [the] environment toppari et al 1996 this paper has stimulated research [and] informed clinical practice for over [a] decade in writing [the] paper careful attention [was] paid [to] reports of declining quality of semen in humans [and] subsequent effects on male fertility on an international scale results from laboratory studies were reviewed [and] compared [with] human outcomes [the] analysis also considered changes in male reproductive effects influenced by environmental factors in wildlife such [a] comprehensive approach helped elucidate those areas of male reproductive health that were most likely [to] have been affected by environmental factors this study also pointed up [the] importance of life stage [to] adverse environmental outcomes earlier exposure often having [a] lasting effect

The authors are male....

Gender Genie

<http://bookblog.net/gender/genie.php>

Language and Gender or Sex

Female Score: 73

Male Score: 64

The Gender Genie thinks the author of this passage is: female!

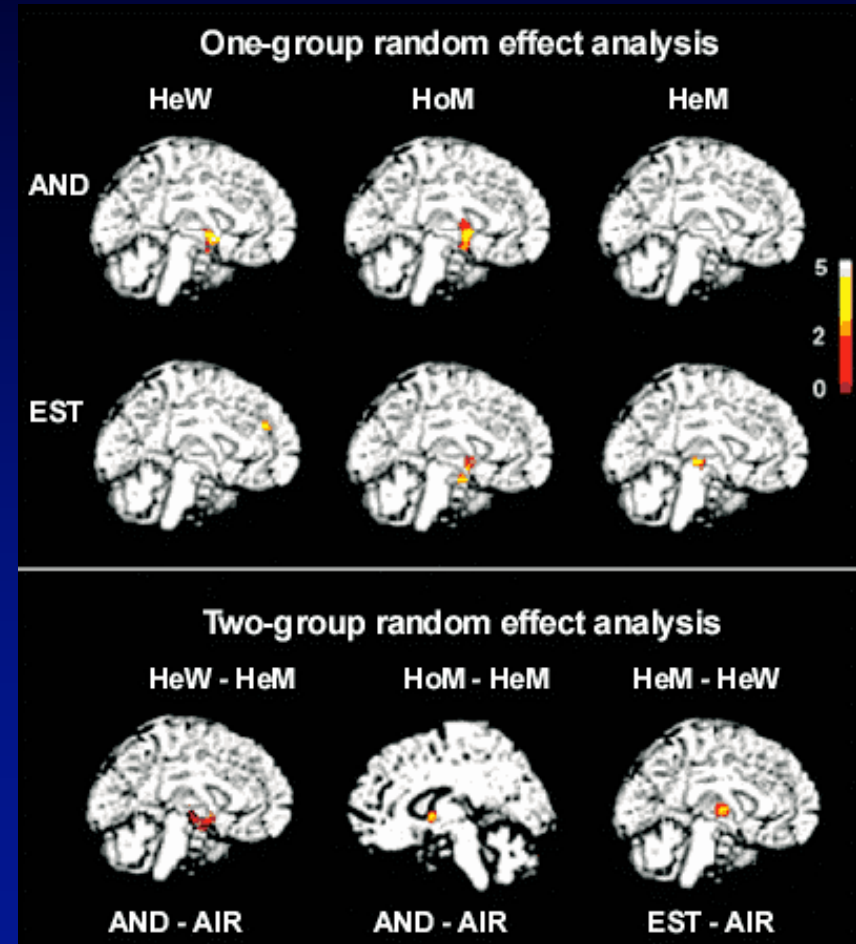


...with good female language skills!

Analysis												
Feminine Keywords						Masculine Keywords						
[with]	1	x	52	=	52	[around]	0	x	42	=	0	
[if]	0	x	47	=	0	[what]	0	x	35	=	0	
[not]	0	x	27	=	0	[more]	0	x	34	=	0	
[where]	0	x	18	=	0	[are]	0	x	28	=	0	
[be]	0	x	17	=	0	[as]	0	x	23	=	0	
[when]	0	x	17	=	0	[who]	0	x	19	=	0	
[your]	0	x	17	=	0	[below]	0	x	8	=	0	
[her]	0	x	9	=	0	[is]	0	x	8	=	0	
[we]	0	x	8	=	0	[these]	0	x	8	=	0	
[should]	0	x	7	=	0	[the]	4	x	7	=	28	
[she]	0	x	6	=	0	[a]	5	x	6	=	30	
[and]	5	x	4	=	20	[at]	0	x	6	=	0	
[me]	0	x	4	=	0	[it]	0	x	6	=	0	
[myself]	0	x	4	=	0	[many]	0	x	6	=	0	
[hers]	0	x	3	=	0	[said]	0	x	5	=	0	
[was]	1	x	1	=	1	[above]	0	x	4	=	0	
						[to]	3	x	2	=	6	

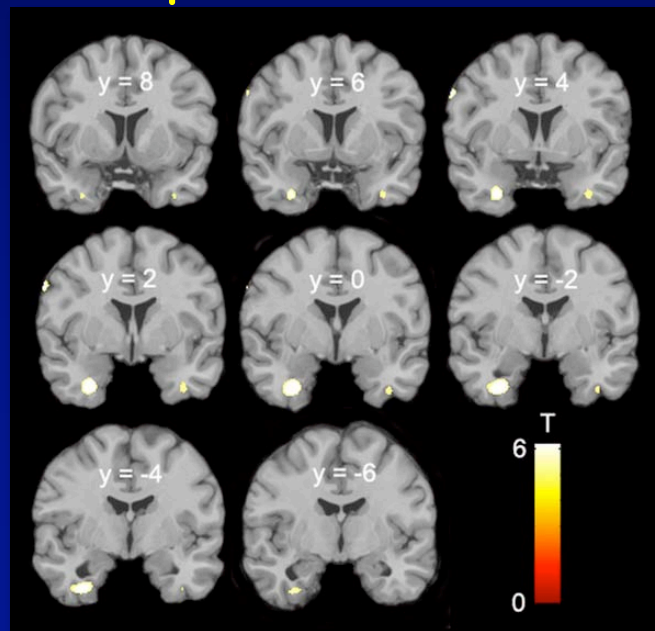
Brain Responses to 'Pheromone'

- 4,16-androstadien-3-one (AND)
- estra-1,3,5(10),16-tetraen-3-ol (EST)



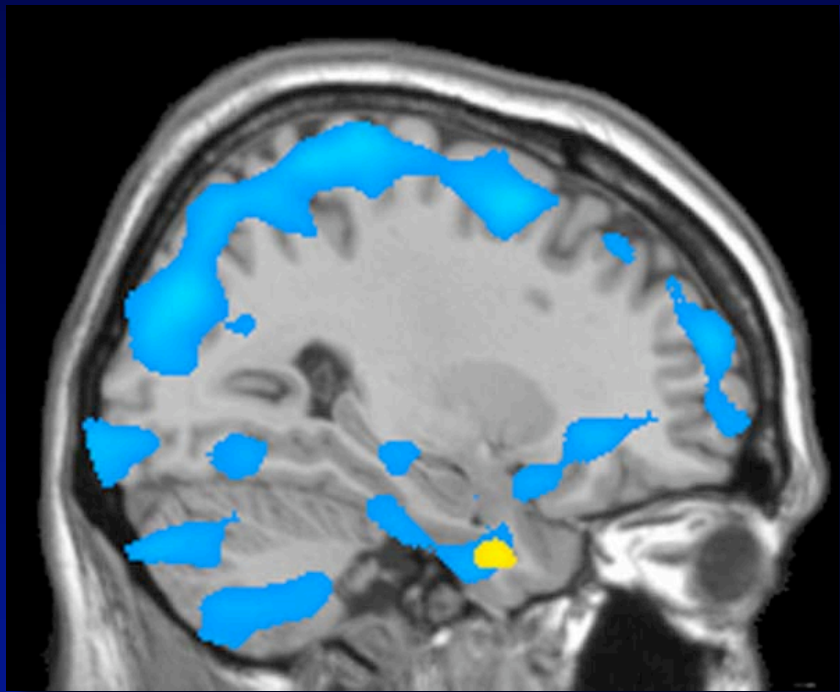
Androgenization of the brain

- Ponseti et al. suggest they observe a brain correlate of prenatal androgenization in homosexual women
 - they have less grey matter in their peri-rhinal cortex than heterosexual women
 - Similar to male pattern



Ponseti et al. (2007) PLoS ONE 2(8): e762. doi:10.1371/journal.pone.0000762

Gray Matter Concentration



- Areas of decreased grey matter concentration
 - heterosexual men blue
 - homosexual women yellow ($p < 0.05$).
- Reduced GM concentration of homosexual women (relative to heterosexual women) is located within a sex dimorphic brain area.