




Genetics Studies

Bouchard and McGue (1981)
Kendler et al (2015)
Scarr and Weinberg (1983)



Twinsburg, OH



Minnesota Twins Studies

Involves several related but independent studies on twins

Twin registry was started in 1983 to track twins for research

Conducts personality and interest tests with 8,000+ pairs



What is “intelligence”?

What exactly do we mean when we talk about “intelligence”?

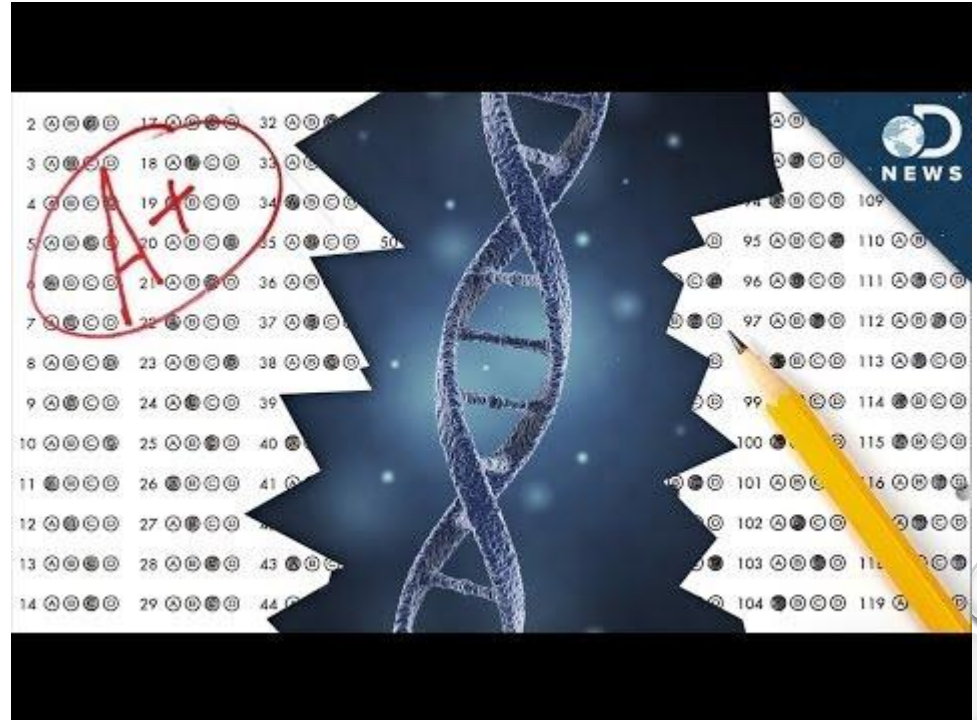
How would you operationalize the term for a study?



Inheritability of Intelligence

To what extent do you believe that intelligence is linked to genetic inputs vs. environmental factors?

What are some reasons supporting nature? nurture?



Bouchard and McGue (1981)

Reviewed 111 studies on IQ Correlations
Calculated Median Correlations
(Avg. of how often IQ is similar)

**RESULTS
DEMONSTRATE IQ IS 54%
GENETIC**



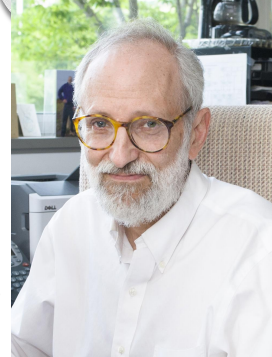
Bouchard and McGue (1981)

Expected similarity	IQ correlation between	% of shared genes	Median correlation
1	MZ twins reared together	100	0.85
2	MZ twins reared apart	100	0.67
3	DZ twins reared together	50	0.58
3	Siblings reared together	50	0.45
3	Parent and offspring reared together	50	0.39
4	Siblings reared apart	50	0.24
4	Parent and offspring reared apart	50	0.22
5	Adopting parent and offspring	0	0.18

▲ Table 2.3

Source: based on Bouchard and McGue (1981, p 1056)

Kendler et al (2015)



Study of sibling pairs (one home-reared and one adopted)

Nurture: Cognitive ability is environmentally malleable
5-point IQ increase by the age of 18

Nature: Correlation between the cognitive ability of adoptive children and the educational level of biological parent

Explanation: additive influence of environment and genetics
(niche-picking)

Scarr and Weinberg (1983)

Transracial Adoption Study



Nurture:

Avg. Intelligence Increases- black children raised in white homes
vs. black children raised in there own homes

Nature:

Correlation with biological parents is higher

Biological parent-adopted child .43

Adopted parent-adopted child .29

IQ correlation of adopted children reared together was 0

Biologically related children select similar environments and so
genetic inheritability of intelligence becomes higher with age.

