

Bryant-Taneda

AP Psychology 12

Ch. 3 Nature versus Nurture
& Evolutionary Psychology

Test Review

Sperm and Egg – How many chromosomes do you receive from each parent?

23
chromosomes
from each
parent

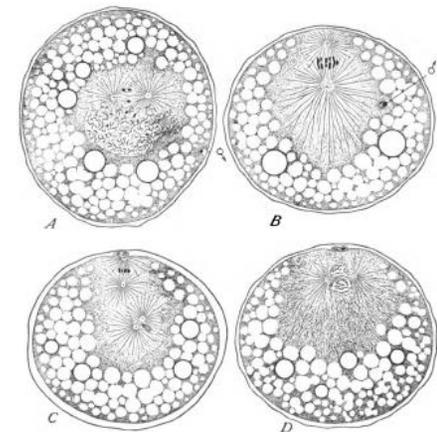


Fig. VI. — Fertilization of the egg of *Nereis*, from sections. (X 400.)

Egg + Sperm \rightarrow XX or XY?

Female = XX

Male = XY

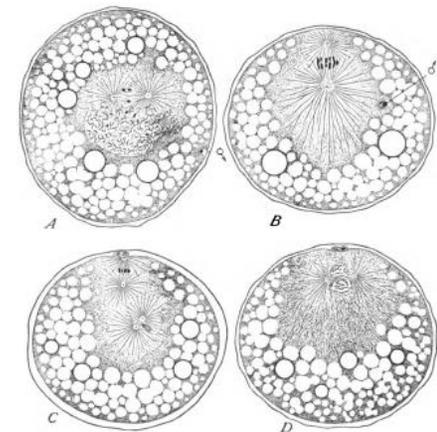


Fig. VI. — Fertilization of the egg of *Nereis*, from sections. (X 400.)

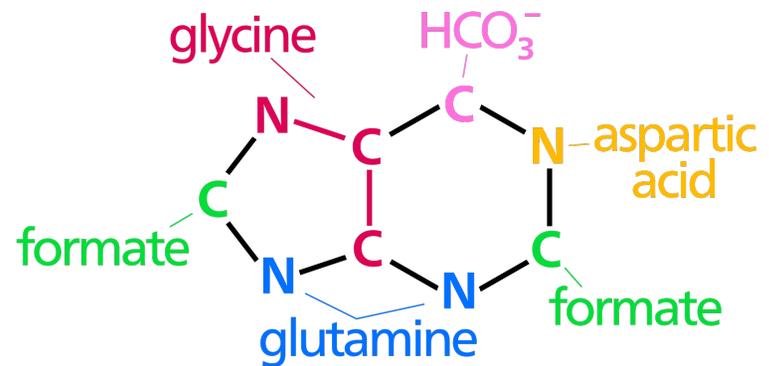
DNA = Genes

- Specific code for proteins



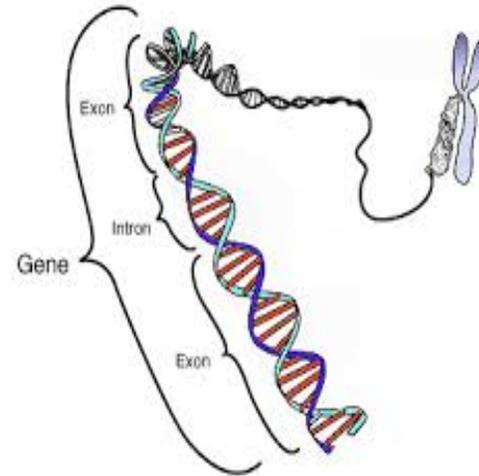
Nucleotides

- Nucleotides form the basic structural unit of nucleic acids such as DNA
- Nucleotides are like the strokes that make a acid, or a letter; 3 = 1 acid/letter;
- Each *letter* spells out a gene.



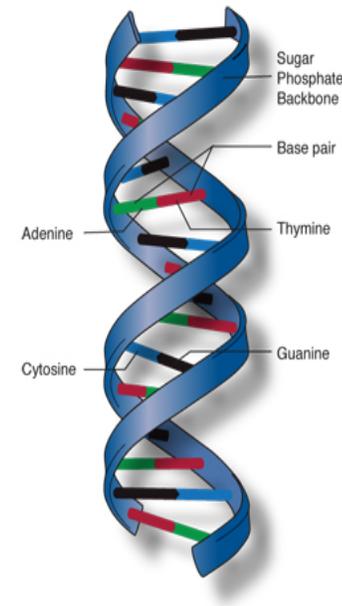
Genes

- Biochemical units of heredity that make up the chromosomes.
- One gene consists of maybe 200 nucleotides.
- Genes are the *stories* in the book



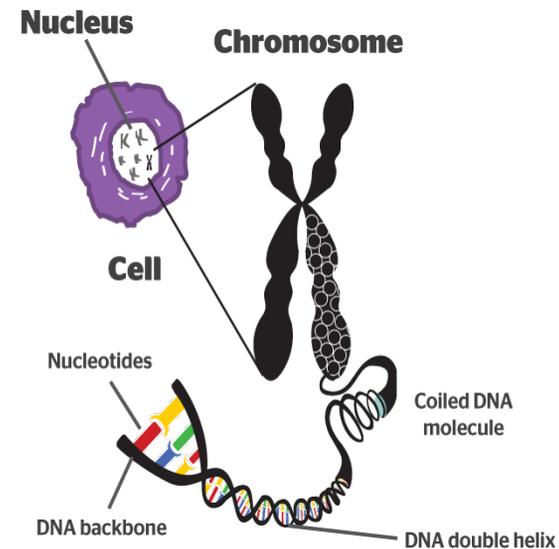
DNA Nucleic Acid

- Complex long molecule containing genetic info that makes up chromosomes
- DNA is a long ribbon
- DNA is an *entire book of stories*



Chromosomes

- Threadlike structures made of DNA
- How the DNA wraps up
- The larger picture of DNA
- We can see chromosomes with our eyes



Genome

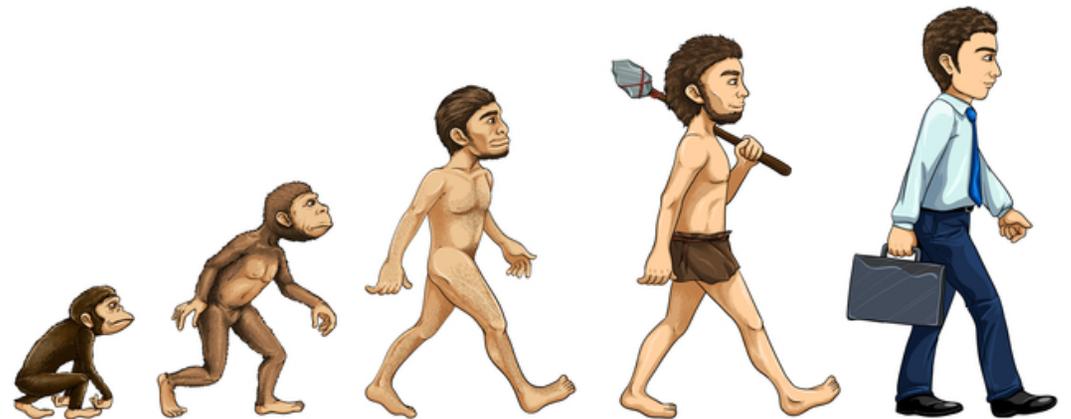
- The sum total or complete instructions;
- All of the DNA/chromosomes for making an organism consisting of all the genetic material in its chromosomes.
- This is the full complement of your genetic *story* (23 pairs of chromosomes in humans; 4 pairs in fruit flies)

Evolutionary Psychology

→ Behaviour that contributes to the reproductive success

- How?

We make sure that our genes get to the next generation



Why are women less likely to engage in “one night stands”? Or have sex with a stranger?

- Women want to protect their offspring.



Reproductive Potential

- **Men** have a greater potential because they have *more* sperm
- **Women** have a lesser potential because they have a *limited* number of eggs

So, A) Men marry (younger/older)
women, and

B) Women marry (younger/older) men

A) Younger – Why? Because they have
(more/less fertile) eggs

B) Older/mature – Why? Because they
are focused on protecting and taking
care of their (family's) life

Behaviour Genetics

- This school reviews how behaviour is affected by genes, DNA, chromosomes
- And how hereditary influences personality traits

So, will adopted children least likely resemble their *adoptive* or *biological* parents?

They will least likely resemble their *adoptive* parents

Trait Heritability

- Adoption studies look at the extent to which **VARIATION** among individuals is due to **GENETICS**



Nature vs Nurture: Temperament

- Stability versus Change
- Broad personality disposition
- Restless versus quiet traits



Unique Temperaments

- Interaction of your parents with your temperament (*heritability*)



Nature and Nurture

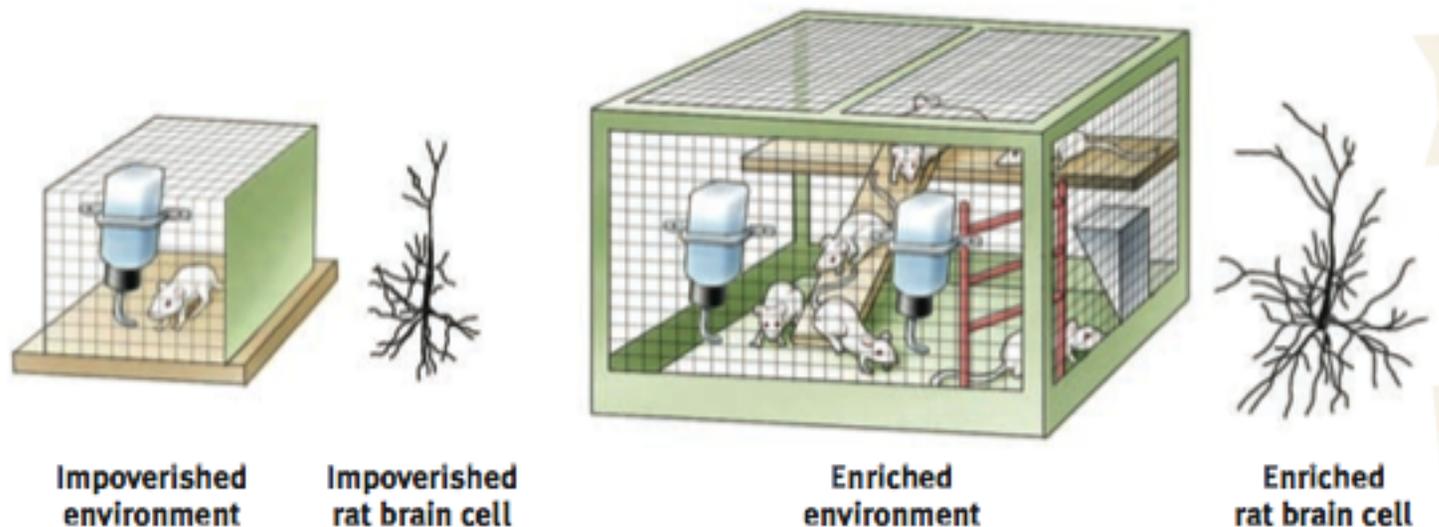
- **Nature** – the *cards you are dealt*, (chromosomes, DNA, genes, brain structure)
- **Nurture** – *how you play the game*; your culture, food you eat, geography, religion and education



Early Environment – Rosenzweig & Krech; Renner et al

Brain development - Nature and Nurture:

- Rats raised in an *enriched environment* will develop more synapses and connections
- Rats raised in an *impoverished environment* will have lesser synaptic connections



Sensitivity to our peer group – Why?

- Genetically predisposed – **Why?**
- Need to affiliate – **Why?**
- Want to be part of your group – **Why?**
- To find a mate – **Why?**
- To reproduce!



Survival of the **Fittest** (those who **Fit** into the group?)

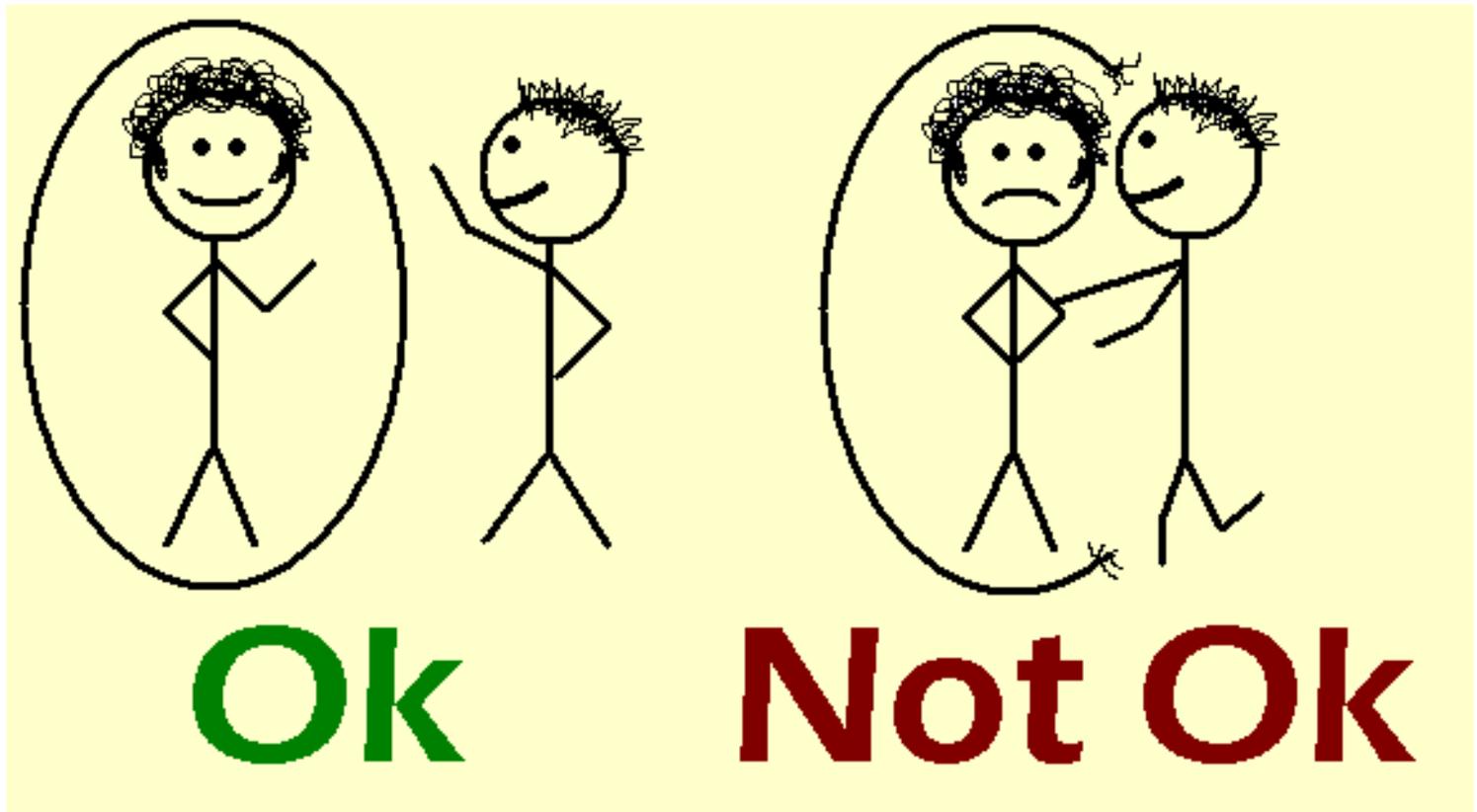
Social Norms

- Influence on behaviour



Personal Space

- The distance we keep between each other and assume when we approach another person; this is moreso an aspect of *Western and European* cultures



Cultural Differences:

Western/European: Personal Space, Punctuality, & Individuality

Asian/African: Social Harmony



Gender Role – Behaviour expectations

Gender Typing – Traditional gender role

Social Learning Theory – We learn from our culture through rewards and punishments and female and male modeling and imitating

