

In evolutionary terms, sex is more important than life itself. Sex fuels evolutionary change by adding variation to the gene pool. The powerful urge to pass our genes on to the next generation has likely changed the face of human culture in ways we're only beginning to understand.

1. Reproduction is the one biological process that connects animals with their ancestors.
 - a. Some female species clone themselves, so why bother with the males?
 - b. Yet, the majority of life on the planet is the result of sexual reproduction.
 - 1) Biological imperative is to pass of genes.
2. Species who reproduce both asexually and sexually... a scientific experiment.
 - a. Red Queen hypothesis: evolution is a race... evolves fast enough to stay in place.
 - 1) Asexual species stop evolving, so they are more susceptible to extinction.
 - b. Sex is the best defense to rapidly evolving parasites, pathogens, or predators.
 - c. Small numbers of sexual reproducers results in less variation in the population.
 - 1) Sex produces large amounts of variation.
 - 2) Only one half of your genes are passed on to the next generation.
3. Origins of sex likely started with the simple transfer of genes without males and females.
 - a. Males with motile sperm and females with complex eggs came later.
4. Sexual selection.
 - a. Extravagance in one sex (usually the male) is energetically expensive.
 - b. Competition between one sex is also energetically expensive.
 - 1) Female choice selects male characteristics that indicate good genes.
 - 2) Traits may become greatly elaborated with no apparent purpose.
5. Monogamy... the pairing of a male and female to raise their offspring.
 - a. Shared investment in the next generation may increase offspring's survival.
 - b. Lusting for another mate because they possess a higher genetic quality.
 - 1) In songbirds, up to 40% of females cheat.
 - c. Role reversals exist, where males raise the young and females solicit sex.
 - 1) One sex competes for mates and other invests in the young.
6. Human sex compared with our closest relatives... Bonobos and Chimpanzees.
 - a. Social behaviors and interaction may dictate sexual behaviors.
 - b. Evolutionary psychologists study the origin of human sexual behavior.
 - 1) Embedded instincts help detect good evolutionary traits.
 - 2) Humans have sex because it feels good, but why does the brain react this way?

