brain & spinal cord for processing. After info is processed, motor neurons send it back out to the body to act. Between sensory and motor neurons are interneurons, which far outnumber the former two.

3A.2 The Nervous System

Neuron impulse speed varies - slower than a computer. Neurons send out signals based on chemical triggers. At this point, action impulses (brief electrical charge) travel down the axon. Visual perception track allows us to create “mental furniture that allows us to think about the world”. Lots of thinking, feeling, and acting operates on an unconscious level.

3A.2.1 The Peripheral Nervous System

After info is processed, motor neurons send it back out to the body to act. Between sensory and motor neurons are interneurons, which far outnumber the former two. At this point, action impulses (brief electrical charge) travel down the axon. Visual perception track allows us to create “mental furniture that allows us to think about the world”. Lots of thinking, feeling, and acting operates on an unconscious level.

Multiple sclerosis is the degeneration of the myelin sheath, making it difficult for neurons to communicate. Neurons generate energy - chemistry-to-electricity process involves exchanging ions (charged atoms). Fluid inside neuron contains negative ions, outside of axon membrane are positive ions.

3A.2.2 The Central Nervous System

At this point, action impulses (brief electrical charge) travel down the axon. Visual perception track allows us to create “mental furniture that allows us to think about the world”. Lots of thinking, feeling, and acting operates on an unconscious level. After info is processed, motor neurons send it back out to the body to act. Between sensory and motor neurons are interneurons, which far outnumber the former two.

Neurons generate energy - chemistry-to-electricity process involves exchanging ions (charged atoms). Multiple sclerosis is the degeneration of the myelin sheath, making it difficult for neurons to communicate. Fluid inside neuron contains negative ions, outside of axon membrane are positive ions.

3A.3 The Endocrine System

1961 - Philip Vogel and Joseph Bogen suspect a major epileptic seizure is bouncing between the two hemispheres in a patient. They thought they could stop it by severing the corpus
callosum which separates the two halves. When they performed the operation, the seizures stopped and the patients functioned mostly normally.

Nerve fibres connect all of these areas. Geschwind assembled all these clues to discovered how we learn language.

3C.1 Behavior Genetics: Predicting Individual Genetics

behavior geneticists - study our differences and study the effects and interplay of heredity and environment

3C.1.1 Genes: Our Codes for Life

Chromosomes - 46, 23 from mother, 23 from father. Contain DNA, coiled chain. Genes are small segments of DNA - roughly 30,000 genes in a human. Genes are either active/expressed or inactive. Environment can activate genes.

Human genome researchers have found a common DNA sequence. Slight variations from person-to-person gives clues to uniqueness. Genetic predisposition helps explain our human nature and also our human diversity.

3C.1.2 Twin and Adoption Studies

Experiments which control environment and heredity would need to be designed in order to figure out nature vs. nurture.

Identical twins are genetically identical.
Fraternal twins develop from separate eggs
Identical twins are much more likely to be similar in terms of extraversion and neuroticism than fraternal twins.

Matt McGue and David Lykken studied 1500 middle-aged twin pairs of the same sex. If one fraternal twin divorced, the chances of the other divorcing went up 1.6 times. If one identical twin divorced, the chances went up 5.5 times. Divorce risks are 50% attributable to genetics.

Separated Twins

Jim Lewis was separated from his brother, Jim Springer at birth - the two oddly came to have nearly identical lives. Jim Springer, hearing a voice recording of the twins, thought his brother’s voice was his.