



## Theology of Neurology: Facilitation: Changing the Path of Least Resistance: Synaptic Inhibition, Altering a Behavior Pattern

### C. Synaptic Inhibition:

- 1) A neuron can do only two things to influence other cells: it can increase or decrease their activity.
- 2) Excitation increases the excitability and activity of a neuron.
- 3) Inhibition does the opposite: it decreases the excitability and activity of a neuron.
- 4) Inhibition differs from excitation in that only certain ion channels are opened, in particular  $\text{Cl}^-$  which denotes a **chloride** ion carrying a **negative** charge.
- 5) Called hyperpolarization, this increases the negativity of the cell giving it **inhibitory potential**.
- 6) This means that a synaptic action which would otherwise cause the cell to fire will no longer do so.
- 7) Simple amino acids are believed to be the workhorse neurotransmitters in the brain.
- 8) **Glutamate** is the primary *excitatory* transmitter in the brain and plays a key role in memory storage.
- 9) **Gamma-amino butyric acid** is the primary *inhibitory* transmitter in the brain.
- 10) Which workhorse goes into action is determined by personal volition.
- 11) If you want to think a certain way, make a given decision, or produce a particular action, then your volition causes the release of glutamate.
- 12) The memory trace is open for business and your behavior follows the path of least resistance.
- 13) If you want to change the way you think, make different decisions, and end a particular behavior pattern, then your volition causes the release of gamma-amino butyric acid.
- 14) Each time you decide against an established wheel-track, it loses its dominance to a certain degree and that power, so to speak, is transferred to the new memory trace.
- 15) As volition consistently chooses the new wheel-track, it becomes stronger and stronger as the old one becomes weaker and weaker.
- 16) Eventually, the new wheel-track takes over as the path of least resistance and one's behavior is changed.
- 17) However, it must be noted that doing this is far more difficult than describing it. It is impossible for the unbeliever, the carnal, or the reversionist to change the way he thinks if his disposition remains unchanged.



- 18) Consequently, it is God's desire that those who habitually follow wheel-tracks of wickedness change their minds and begin to instead follow wheel-tracks of righteousness.
- 19) Therefore, in God's plan there are inevitable results associated with every thought, decision, or action.
- 20) Those which are classified as wicked, as per Solomon in Proverbs 10-24 (73 occurrences), reap pain and suffering while those which are classified as righteous (58 occurrences) earn rewards and blessings.
- 21) The motivation for the reversionist to change the way he thinks is associated with the pain and suffering he reaps from his decision-making.
- 22) Once he has the desire to change, then he must rebound in order to acquire the power to make the change.
- 23) Without the enabling power of the Holy Spirit, the reversionist is incapable, from his own devices, of consistently making the right choices.
- 24) Even the reversionist who genuinely wants to recover and change his life cannot do so if he refuses to submit to God's reversion recovery program.
- 25) Whether he wants to or not, he will always follow the path of least resistance.
- 26) He may enjoy brief episodes of good behavior mustered from sheer will power, but he simply can't sustain it over the course of a lifetime.