creatures of habit

the connection between habits and character

MARCH 2013
ALIVE!

BENJAMIN FRANKLIN said, "Your net worth to the world is usually determined by what remains after your bad habits are subtracted from your good ones." The implication is that habits control much of what life is made up of. We've heard the saying, "Sow a thought, reap an action; sow an action, reap a habit; sow a habit, reap a character; sow a character, reap a destiny." Ellen White wrote, "We shall be individually, for time and eternity, what our habits make us."[1]

These statements work great for us when we are talking about good habits, but not with those that aren't so stellar. We have both good and bad habits that pertain to various aspects of our lives including: daily routine, diet, stress response, relationships, and even thought patterns. They all merge to define and stabilize our lives. One of the benefits of habits is they provide a shortcut, saving time and brain energy.

Professor Ann Graybiel, a member of the McGovern Institute for Brain Research at Massachusetts Institute of Technology, says that while habits free the brain to concentrate elsewhere, "it doesn't free up all of it. There's some piece of your cortex that's still devoted to that control."[2] The cortex is what we generically refer to as grey matter, the thin outer layer of the brain, the executive suite, where the conscious mind is found. More specifically, Graybiel says that the prefrontal cortex, "where most thought and planning occurs, is responsible for moment-by-moment control of which habits are switched on at a given time."[3] Her research "shows that though habits may be deeply ingrained, the brain's planning centers can shut them off."[4]

WE SHALL BE INDIVIDUALLY, FOR TIME AND ETERNITY, WHAT OUR HABITS MAKE US.

Other areas of the cortex promote habitual response. When the cells in this area were put on hold, research rats made cognitive decisions about which way they would go rather than acting automatically. The rats then developed a new habit in response to similar stimuli. Again, when certain neurons of the cortex were turned off the rats reverted back to the old habit, showing that habits are not erased. They remain indelibly in memory lane, with one having the ability to override the other.

They say that the best way to take out a nail deeply embedded in wood is to drive it out with another. Developing a positive habit to override a destructive one requires persistence, determination, and time (supposedly 30 days). In his book, *The Power of Habit*, Charles Duhhig maps out the golden rule of habit change. To understand it, we must begin with his basic outline of how habits develop.

Julio the monkey spent much of his time at the University of Cambridge in the neuroscience laboratory. Other than the electrode in his brain, he was just like any other macaque monkey. At Cambridge, Julio learned that if he touched a lever when a certain shape appeared on the computer screen, he would receive a drop of the most delicious blackberry juice. Once the cue was recognized, Julio responded with

the same routine, which was followed up with the reward. The brain center being observed would light up when the reward was experienced. As the routine became ingrained however, just seeing the shape on the screen would light up the brain before Julio had even touched the lever. In other words, the anticipation was as powerful as experiencing the reward. At this point it was confirmed that this indeed was an ingrained habit.

THE RATS' BEHAVIOR HAD BECOME MORE AUTOMATIC AND HABITUAL. . . . AS A RESULT OF BEING STRESSED OUT.

When the juice did not come down the pike, however, and the anticipation was not rewarded, craving occurred, "that, if unsatisfied, drove Julio to anger or depression."[5] Distractions did not work. When researchers gave Julio the freedom to leave the lab room, play with other monkeys, or eat other food, Julio remained focused on the cue (monitor), pressing the lever over and over (routine). Cue, Routine, Reward. That is the loop, and once formed into a habit it is strong, even if the reward is not always delivered.

The golden rule of habit change, according to Duhigg, is rather simple. Keep the old cue, deliver the old reward, but insert a new routine. "Almost any behavior can be transformed if the cue and reward stay the same."[6] Let's say cigarettes, caffeine, or alcohol are sought for in response to fatigue, boredom, or nervousness. The fatigue or boredom could be the cue, smoking or drinking the routine, and the tranquilizing or stimulating effect is the reward. The idea of habit change is that when the mental cue arises, switch to a new routine that will generate tranquilizing or stimulating effects. Of course there are lifestyle changes that can alter or prevent certain cues, but either way, understanding and interrupting the loop is key to breaking a habit. No matter what, you will need the cooperation of grey matter.

Sensitive to being accused of cruelty to animals, Portuguese researchers used practices established by the National Institute of Health and its European counterparts to expose a group of rats to chronic stress. The environment was intended to be comparable to what you and I might experience when under a significant level of stress. The rats went through a process of habit formation similar to what Julio had undergone, of receiving a sugary treat after pressing a lever. At the end of three weeks, the researchers found that the rats' behavior had become more automatic and habitual rather than directed by thought and cue as a result of being stressed out. In addition, they "found brain changes in the rats. Parts of the brain believed to control 'goal directed behavior' shrank slightly—but an area thought to be important for forming habits . . . actually grew."[7] Psychiatrist, Dr. C. Robert Cloninger of Washington University School of Medicine commented on the study. "Chronic stress 'hijacks' or short-circuits access to the neocortex, so stressed rats and humans become creatures of habit with little flexibility or initiative in setting goals."[8]

Habits make up such a significant part of our lives, some 40 percent. Stress compounds these reflexes and jeopardizes grey matter oversight, making us susceptible to reverting back to old habits. At such times, be especially on guard, especially in prayer, especially seeking encouragement and accountability. Now is the time to develop strong positive habits of the important things in life. They will equip us with the character that will not think twice when faced with right and wrong, honor or dishonor, even in stressful times. At the most intense moment in Jesus' life, stressed beyond our comprehension, He went to the Mount of Olives where He prayed, "as was His habit" (Luke 22:39, Amp.).

[1] Ellen White, *Child Guidance*, p. 202.
[2] Ann Trafton, "How the Brain controls our Habits," MITnews, 10/29/12, http://web.mit.edu/newsoffice/2012/understanding-how-brains-control-our-habits-1029.html.
[3] Ibid.
[4] Ibid.
[5] Charles Duhigg, *The Power of Habit*, Random House New York, 2012, p. 47.
[6] Ibid., p. 62.
[7] Ned Potter, "Does Stress Make Us 'Creatures of Habit'?" ABCNews, 7/30/09, http://abcnews.go.com/Technology/MindMoodNews/story?id=8211974&page=1.
[8] Ibid.

Risë has been writing on various health subjects for over 20 years. She has inspired many through her research and down-to-earth writing and speaking style. She believes that healthy living is intimately tied to happiness and wholeness.