

# How we form habits, change existing ones

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## Summary:

About 40 percent of people's daily activities are performed each day in almost the same situations, studies show. Habits emerge through associative learning. 'We find patterns of behavior that allow us to reach goals.

We repeat what works, and when actions are repeated in a stable context, we form associations between cues and response,' a researcher explains.

Much of our daily lives are taken up by habits that we've formed over our lifetime. An important characteristic of a habit is that it's automatic-- we don't always recognize habits in our own behavior.

Studies show that about 40 percent of people's daily activities are performed each day in almost the same situations. Habits emerge through associative learning.

"We find patterns of behavior that allow us to reach goals. We repeat what works, and when actions are repeated in a stable context, we form associations between cues and response," Wendy Wood explains in her session at the American Psychological Association's 122nd Annual Convention.

## What are habits?

Wood calls attention to the neurology of habits, and how they have a recognizable neural signature. When you are learning a response you engage your associative basal ganglia, which involves the prefrontal cortex and supports working memory so you can make decisions.

As you repeat the behavior in the same context, the information is reorganized in your brain. It shifts to the sensory motor loop that supports representations of cue response associations, and no longer retains information on the goal or outcome.

This shift from goal directed to context cue response helps to explain why our habits are rigid behaviors.

There is a dual mind at play, Wood explains. When our intentional mind is engaged, we act in ways that meet an outcome we desire and typically we're aware of our intentions.

Intentions can change quickly because we can make conscious decisions about what we want to do in the future that may be different from the past.

However, when the habitual mind is engaged, our habits function largely outside of awareness. We can't easily articulate how we do our habits or why we do them, and they change slowly through repeated experience.

"Our minds don't always integrate in the best way possible. Even when you know the right answer, you can't make yourself change the habitual behavior," Wood says.

Participants in a study were asked to taste popcorn, and as expected, fresh popcorn was preferable to stale. But when participants were given popcorn in a movie theater, people who have a habit of eating popcorn at the movies ate just as much stale popcorn as participants in the fresh popcorn group.

"The thoughtful intentional mind is easily derailed and people tend to fall back on habitual behaviors. Forty percent of the time we're not thinking about what we're doing," Wood interjects. "Habits allow us to focus on other things...Willpower is a limited resource, and when it runs out you fall back on habits."

### **How can we change our habits?**

Public service announcements, educational programs, community workshops, and weight-loss programs are all geared toward improving your day-to-day habits.

But are they really effective? These standard interventions are very successful at increasing motivation and desire. You will almost always leave feeling like you can change and that you want to change.

The programs give you knowledge and goal-setting strategies for implementation, but these programs only address the intentional mind.

In a study on the "Take 5" program, 35 percent of people polled came away believing they should eat 5 fruits and vegetables a day.

Looking at that result, it appears that the national program was effective at teaching people that it's important to have 5 servings of fruits and vegetables every day.

But the data changes when you ask what people are actually eating. Only 11 percent of people reported that they met this goal. The program changed people's intentions, but it did not overrule habitual behavior.

According to Wood, there are three main principles to consider when effectively changing habitual behavior. First, you must derail existing habits and create a window of opportunity to act on new intentions.

Someone who moves to a new city or changes jobs has the perfect scenario to disrupt old cues and create new habits. When the cues for existing habits are removed, it's easier to form a new behavior.

If you can't alter your entire environment by switching cities-- make small changes. For instance, if weight-loss or healthy eating is your goal, try moving unhealthy foods to a top shelf out of reach, or to the back of the freezer instead of in front.

The second principle is remembering that repetition is key. Studies have shown it can take anywhere from 15 days to 254 days to truly form a new habit.

"There's no easy formula for how long it takes," Wood says. Lastly, there must be stable context cues available in order to trigger a new pattern.

"It's easier to maintain the behavior if it's repeated in a specific context," Wood emphasizes. Flossing after you brush your teeth allows the act of brushing to be the cue to remember to floss.

Reversing the two behaviors is not as successful at creating a new flossing habit. Having an initial cue is a crucial component.

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### Story Source:

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