

## **Consumption Habits: Boon and Bane of Self-Regulation**

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Habits are well-practiced responses that are cued automatically by the environment. They develop when people respond repeatedly in a stable context and thereby form associations in memory between the context and the response. Once habits have formed, perception of the context automatically activates mental representation of the response (Neal, Wood, & Quinn, 2006; Wood & Neal, 2007). Thus, for someone who typically eats fast food while driving, familiar cues such as being in one's car and passing by the drive-through restaurant can activate in memory the associated responses of purchasing and eating.

A defining feature of habit performance is that it is not dependent on goals. Thus, people can engage in habits of stopping at the drive-in and eating in the car without having corresponding goals to do so. In this way, habits differ from other kinds of automatic responses (e.g., implementation intentions) that depend on people's explicit goals and thus are flexibly responsive to them.

To demonstrate that habits are not goal dependent, we conducted laboratory experiments in which we separately varied people's habitual responses and their current goals. In one study, we demonstrated that habit performance can be cued by contexts without a corresponding goal being activated in memory (Neal & Wood, under review). In another study, we showed that the context-response (habit) associations in memory are not readily modified when people's goals change (Neal, Pascoe, & Wood, in progress). Habits continue to guide behavior unless people actively override them through conscious, effortful control. Field research using correlational designs also has demonstrated that habits do not depend on goals. We have found that people with habits to exercise or to purchase fast food continue to do so regardless of their behavioral goals (Ji & Wood, 2007; Wood, Tam, & Witt, 2005).

Even though habit performance does not depend on goals, habits can be considered a form of self-regulation. That is, habit responses produce outcomes that can meet people's goals. Notwithstanding bad or unwanted habits, people largely repeat responses and form habits that produce desired outcomes. Suggesting that habits are an effective form of self-regulation, Ouellette and Wood's (1998) meta-analytic review across 33 studies revealed that people's habitual patterns of behavior correlated positively with their behavioral goals,  $r = .43$ . We suspect that this generally positive relation between habits and goals reflects that habits form largely as people repeatedly pursue desired outcomes and avoid undesired ones. Thus, habits are likely to correspond to the goals that initially spurred response repetition and the formation of habits.

Habits are an efficient form of self-regulation. Similar to other kinds of automatic response, habit performance requires only minimal exertion of regulatory will-power or self-control. One implication is that habit performance continues even when people's self-control strength or willpower is reduced temporarily. In an illustrative experiment, college students' willpower was drained by an experimental manipulation that involved continual performance of an experimental task throughout the day (Neal & Wood, unpublished). When their willpower was drained in this

way, students reported meeting their daily goals by performing relatively more habits (e.g., practiced forms of exercise). Students apparently were not able to carry out novel ways of meeting their goals but instead relied on habitual responses. Thus, habits are a regulatory boon in that they are an efficient means of meeting goals of healthful eating and exercising.

Because habits do not depend on goals, they do not always promote effective self-regulation. Habit associations are represented in procedural memory and as such are not flexibly altered through people's current eating plans and goals. With respect to eating, this suggests that, even when people are actively dieting or trying to eat healthfully, existing habit associations remain in memory and can promote old patterns whenever people are not consciously inhibiting them. Thus, it is possible to change people's goals—to give them information on how to eat right and how to exercise. When people have formed strong habits, however, they tend to repeat the habits despite the new goals (Webb & Sheeran, 2006).

Habit change involves self-control to inhibit the expression of a habitual response when it is cued by the environment. Levels of self-control fluctuate over time, and when willpower is low, people are less able to inhibit undesired habits (e.g., overeating; Neal & Wood, unpublished). They are less able to muster the self-control strength to suppress the habitual response cued by the environment. In this way, habits are a bane of self-regulation. When inconsistent with current goals, they impede self-regulation because they require acts of effortful self-control to inhibit.

Habits not only require effortful self-control, but also they require certain types of self-control. The various types of self-control have been articulated by Metcalfe and Mischel (1999) in their research on delay of gratification. In their analysis, delay of gratification is promoted through cognitive strategies such as distracting oneself from an affectively tempting stimulus (e.g., attractive dessert). However, habit cuing is not amenable to such cognitive interventions. In fact, people seem especially likely to inadvertently perform unwanted habits when they are distracted (Reason, 1990). Quinn, Pascoe, and Wood's (unpublished) investigation of the strategies that people use spontaneously to suppress unwanted habits in daily life revealed that habits are best controlled through careful monitoring of environmental stimuli so that the habit cannot be cued inadvertently. For example, the habit of cleaning one's plate is best changed through careful monitoring of how much one eats—if distracted, one is likely to inadvertently clean one's plate even if intending not to do so.

In addition to people's careful monitoring of the stimuli that trigger habits, changing the performance context is a promising approach to habit change. Evidence comes from research on people moving to a new location. When the move involves change in the contexts in which they performed everyday habits, the behavior seems to be released from context control, and people appear able to implement their intentions (Wood et al., 2005). Thus, just as recovering alcoholics are advised to avoid bars and others who drink, people who want to change unwanted eating habits should carefully monitor and avoid triggering situations. If people want to eat less fast food, they might find a route home at night that does not pass by their favorite fast-food drive-in. If they usually eat unhealthy food with particular other people, they might avoid those others at times at which they usually eat.

**References:**

Ji M & Wood W. Habitual purchase and consumption: not always what you intend. *Journal of Consumer Psychology*, 2007;17:261-276.

Metcalf J & Mischel W. A hot/cool-system analysis of delay of gratification: dynamics of willpower. *Psychological Review*, 1999;106:3-19.

Neal DT & Wood W. *The Power of Context: Non Goal-Dependent Priming of Habitual Responses*. Durham, NC: Duke University, (under review).

Neal DT, Pascoe AT, & Wood W. *Goals Promote Declarative, Rule-Based Responding but Impair Procedural, Habit-Based Responding*. Durham, NC: Duke University, (unpublished).

Neal DT, Wood W, & Quinn JM. Habits: a repeat performance. *Current Directions in Psychological Science*, 2006;15:198-202.

Ouellette J & Wood W. Habit and intention in everyday life: the multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*, 1998;124:54-74.

Quinn J, Pascoe AT, & Wood W. *Forms of willpower for habit change*. Durham, NC: Duke University, (unpublished).

Reason JT. *Human error*. Cambridge, England: Cambridge University Press, 1990.

Webb TL & Sheeran P. Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin*, 2006;132:249-268.

Wood W & Neal DT. A new look at habits and the habit-goal interface. *Psychological Review*, 2007;114:843-863.

Wood W, Quinn JM, & Kashy D. Habits in everyday life: thought, emotion, and action. *Journal of Personality and Social Psychology*, 2002;83:1281-1297.

Wood W, Tam L, & Guerrero Witt M. Changing circumstances, disrupting habits. *Journal of Personality and Social Psychology*, 2005;88:918-933.