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Warning: Habits May Be Good for You

By **CHARLES DUHIGG**

A FEW years ago, a self-described “militant liberal” named Val Curtis decided that it was time to save millions of children from death and disease. So Dr. Curtis, an anthropologist then living in the African nation of Burkina Faso, contacted some of the largest multinational corporations and asked them, in effect, to teach her how to manipulate consumer habits worldwide.

Dr. Curtis, now the director of the Hygiene Center at the London School of Hygiene & Tropical Medicine, had spent years trying to persuade people in the developing world to wash their hands habitually with soap. Diseases and disorders caused by dirty hands — like diarrhea — kill a child somewhere in the world about every 15 seconds, and about half those deaths could be prevented with the regular use of soap, studies indicate.

But getting people into a soap habit, it turns out, is surprisingly hard.

To overcome this hurdle, Dr. Curtis called on three top consumer goods companies to find out how to sell hand-washing the same way they sell Speed Stick deodorant and Pringles potato chips.

She knew that over the past decade, many companies had perfected the art of creating automatic behaviors — habits — among consumers. These habits have helped companies earn billions of dollars when customers eat snacks, apply lotions and wipe counters almost without

thinking, often in response to a carefully designed set of daily cues.

“There are fundamental public health problems, like hand washing with soap, that remain killers only because we can’t figure out how to change people’s habits,” Dr. Curtis said. “We wanted to learn from private industry how to create new behaviors that happen automatically.”

The companies that Dr. Curtis turned to — [Procter & Gamble](#), [Colgate-Palmolive](#) and Unilever — had invested hundreds of millions of dollars finding the subtle cues in consumers’ lives that corporations could use to introduce new routines.

If you look hard enough, you’ll find that many of the products we use every day — chewing gums, skin moisturizers, disinfecting wipes, air fresheners, water purifiers, health snacks, antiperspirants, colognes, teeth whiteners, fabric softeners, vitamins — are results of manufactured habits. A century ago, few people regularly brushed their teeth multiple times a day. Today, because of canny advertising and public health campaigns, many Americans habitually give their pearly whites a cavity-preventing scrub twice a day, often with Colgate, Crest or one of the other brands advertising that no morning is complete without a minty-fresh mouth.

A few decades ago, many people didn’t drink water outside of a meal. Then beverage companies started bottling the production of far-off springs, and now office workers unthinkingly sip bottled water all day long. Chewing gum, once bought primarily by adolescent boys, is now featured in commercials as a breath freshener and teeth cleanser for use after a meal. Skin moisturizers — which are effective even if applied at high noon — are advertised as part of morning beauty rituals, slipped in between hair brushing and putting on makeup.

“OUR products succeed when they become part of daily or weekly patterns,” said Carol

Berning, a consumer psychologist who recently retired from Procter & Gamble, the company that sold \$76 billion of Tide, Crest and other products last year. “Creating positive habits is a huge part of improving our consumers’ lives, and it’s essential to making new products commercially viable.”

Through experiments and observation, social scientists like Dr. Berning have learned that there is power in tying certain behaviors to habitual cues through relentless advertising.

As this new science of habit has emerged, controversies have erupted when the tactics have been used to sell questionable beauty creams or unhealthy foods. But for activists like Dr. Curtis, this emerging research offers a type of salvation.

For years, many public health campaigns that aimed at changing habits have been failures. Earlier this decade, two researchers affiliated with [Vanderbilt University](#) examined more than 100 studies on the effectiveness of antidrug campaigns and found that, in some cases, viewers’ levels of drug abuse actually increased when commercials were shown, perhaps in part because the ads reminded them about that bag of weed in the sock drawer.

A few years later, another group examined the effectiveness of advertising condom use to prevent AIDS. In some cases, rates of unprotected sex actually went up — which some researchers suspected was because the commercials made people more frisky than cautious.

To teach hand washing, about seven years ago Dr. Curtis persuaded Procter & Gamble, Colgate-Palmolive and Unilever to join an initiative called the Global Public-Private Partnership for Handwashing With Soap. The group’s goal was to double the hand-washing rate in Ghana, a West African nation where almost every home contains a soap bar but only 4 percent of adults

regularly lather up after using the toilet.

Over the last several years, such partnerships between corporations and those trying to save the world have become commonplace. Companies like [Microsoft](#), [Pfizer](#) and [General Electric](#) have worked with nonprofit groups on health, technology and energy programs.

Not everyone is comfortable with the arrangements. Some critics complain that public health professionals are becoming too cozy with companies ultimately focused on their bottom lines. Others worry that these advertising techniques may be manipulative.

But what Dr. Curtis learned in Ghana suggests that saving the world may be as easy as hawking chewing gum, or, to use a more contemporary example, as simple as training Americans to spray perfumed water on couches that are already clean.

FEBREZE — the perfumed water used on couches — is one of the most successful examples of a habit-creation campaign, and, in a sense, the playbook for how Ghana learned to wash its hands.

Procter & Gamble introduced Febreze in 1996 as a way to remove odors from smelly clothes. Consumer surveys had shown that people were leaving their jackets and blouses outside after an evening in a smoke-filled bar. P.& G., which at the time already sold products that cleaned one out of every two laundry loads washed in American homes, decided to spend millions to create a spray to remove offensive smells.

The company ran advertisements of a woman complaining about a blazer that smelled like cigarette smoke. Other ads focused on smelly pets, sweaty teenagers and stinky minivan interiors.

But Febreze flopped. In fact, early sales were so disappointing that the company considered canceling the entire project.

One of the biggest problems, P. & G.'s researchers discovered, was that bad smells simply didn't happen often enough in consumers' lives. Interviews showed that consumers liked Febreze when they used it, but that many customers simply forgot that it was in the house.

At about the same time, the company's staff psychologists were beginning to extend their understanding of how habits are formed.

“For most of our history, we've sold newer and better products for habits that already existed,” said Dr. Berning, the P. & G. psychologist. “But about a decade ago, we realized we needed to create new products. So we began thinking about how to create habits for products that had never existed before.”

Academics were also beginning to focus on habit formation. Researchers like Wendy Wood at [Duke University](#) and Brian Wansink at Cornell were examining how often smokers quit while vacationing and how much people eat when their plates are deceptively large or small.

Those and other studies revealed that as much as 45 percent of what we do every day is habitual — that is, performed almost without thinking in the same location or at the same time each day, usually because of subtle cues.

For example, the urge to check e-mail or to grab a cookie is likely a habit with a specific prompt. Researchers found that most cues fall into four broad categories: a specific location or time of day, a certain series of actions, particular moods, or the company of specific people. The e-mail urge, for instance, probably occurs after you've finished reading a document or

completed a certain kind of task. The cookie grab probably occurs when you're walking out of the cafeteria, or feeling sluggish or blue.

Our capacity to develop such habits is an invaluable evolutionary advantage. But when they run amok, things can become tricky.

Consider a series of experiments Dr. Wansink performed with a bowl of tomato soup that was secretly connected to a tube that pumped more and more liquid into the bowl. Diners ended up eating almost twice as much soup as usual, though they didn't report feeling any fuller after the meal.

Dr. Wood studied exercise habits among students who transferred from one college to another. When locations remained stable — the new school had an outdoor track just like the old school, for example — students continued running regularly. But if the tracks were too different, the exercise tapered off, on average. In another experiment, conducted by researchers studying smokers, those wanting to quit were more than twice as successful if they started kicking the habit while on vacation, when surrounded by unfamiliar people and places.

“Habits are formed when the memory associates specific actions with specific places or moods,” said Dr. Wood, a professor of psychology and neuroscience at Duke. “If you regularly eat chips while sitting on the couch, after a while, seeing the couch will automatically prompt you to reach for the Doritos. These associations are sometimes so strong that you have to replace the couch with a wooden chair for a diet to succeed.”

The researchers at P.& G. realized that these types of findings had enormous implications for selling Febreze. Because bad smells occurred too infrequently for a Febreze habit to form, marketers started looking for more regular cues on which they could capitalize.

The perfect cue, they eventually realized, was the act of cleaning a room, something studies showed their target audience did almost daily. P.& G. produced commercials showing women spraying Febreze on a perfectly made bed and spritzing freshly laundered clothing. The product's imagery was revamped to incorporate open windows and gusts of fresh wind — an airing that is part of the physical and emotional cleaning ritual.

“We learned from consumer interviews that there was an opportunity to cue the clean smell of Febreze to a clean room,” Dr. Berning said. “We positioned it as the finishing touch to a mundane chore. It's the icing that shows you did a good job.”

In a sense, a product originally intended for use on piles of smelly, dirty clothes was eclipsed by its exact opposite — a product used when women confronted a clean and tidy living room. And the more women sprayed, the more automatic the behavior became.

Today, Febreze is one of P.& G.'s greatest successes. Customers habitually spray tidied living rooms, clean kitchens, loads of fresh laundry and, according to one of the most recent commercials, spotless minivans. In the most recent fiscal year, consumers in North America alone spent \$650 million buying Febreze, according to the company.

Dozens of other companies have also redesigned advertising campaigns around habitual cues. Beer commercials, once filled with busty women in ill-fitting tops, are now more likely to feature groups of buddies, because research shows that groups of friends are one of the strongest habit cues. Candy bar companies, through commercials, have tied their products to low-energy cues, transforming what was once a dessert into a pick-me-up for cubicle dwellers.

FOR Dr. Curtis and the Global Public-Private Partnership for Handwashing With Soap, such

tactics offered enormous promise in a country like Ghana.

That nation offered a conundrum: Almost half of its people were accustomed to washing their hands with water after using the restroom or before eating. And local markets were filled with cheap, colorful soap bars. But only about 4 percent of Ghanaians used soap as part of their post-restroom hand-washing regime, studies showed.

“We could talk about germs until we were blue in the face, and it didn’t change behaviors,” Dr. Curtis said. So she and her colleagues asked Unilever for advice in designing survey techniques that ultimately studied hundreds of mothers and their children.

They discovered that previous health campaigns had failed because mothers often didn’t see symptoms like diarrhea as abnormal, but instead viewed them as a normal aspect of childhood.

However, the studies also revealed an interesting paradox: Ghanaians used soap when they felt that their hands were dirty — after cooking with grease, for example, or after traveling into the city. This hand-washing habit, studies showed, was prompted by feelings of disgust. And surveys also showed that parents felt deep concerns about exposing their children to anything disgusting.

SO the trick, Dr. Curtis and her colleagues realized, was to create a habit wherein people felt a sense of disgust that was cued by the toilet. That queasiness, in turn, could become a cue for soap.

A sense of bathroom disgust may seem natural, but in many places toilets are a symbol of cleanliness because they replaced pit latrines. So Dr. Curtis’s group had to create commercials that taught viewers to feel a habitual sense of unseemliness surrounding toilet use.

Their solution was ads showing mothers and children walking out of bathrooms with a glowing purple pigment on their hands that contaminated everything they touched.

The commercials, which began running in 2003, didn't really sell soap use. Rather, they sold disgust. Soap was almost an afterthought — in one 55-second television commercial, actual soapy hand washing was shown only for 4 seconds. But the message was clear: The toilet cues worries of contamination, and that disgust, in turn, cues soap.

“This was radically different from most public health campaigns,” said Beth Scott, an infectious-disease specialist who worked with Dr. Curtis on the Ghana campaign. “There was no mention of sickness. It just mentions the yuck factor. We learned how to do that from the marketing companies.”

The ads had their intended effect. By last year, Ghanaians surveyed by members of Dr. Curtis's team reported a 13 percent increase in the use of soap after the toilet. Another measure showed even greater impact: reported soap use before eating went up 41 percent.

And while those statistics haven't silenced critics who say habit-forming advertisements are worrisome, they have convinced people who run other public health initiatives that the Ghana experiment is on the right track.

Today, public health campaigns elsewhere for condom use and to fight drug abuse and obesity are being revamped to employ habit-formation characteristics, according to people involved in those efforts. One of the largest American antismoking campaigns, in fact, is explicitly focused on habits, with commercials and Web sites intended to teach smokers how to identify what cues them to reach for a cigarette.

“For a long time, the public health community was distrustful of industry, because many felt these companies were trying to sell products that made people’s lives less healthy, by encouraging them to smoke, or to eat unhealthy foods, or by selling expensive products people didn’t really need,” Dr. Curtis said. “But those tactics also allow us to save lives. If we want to really help the world, we need every tool we can get.”

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