the force of habit
modeling the dominant role of the unconscious mind in consumer behavior
Our job is to understand habits: what they are, how they form, how to create them, and how to disrupt them. Long-term growth and profitability for your organization comes from becoming your customer’s automatic choice. At ThinkGen, we practice Habit Marketing called Habit Engineering℠, an approach that works with both the conscious and unconscious minds of the consumer.

ThinkGen Habit Engineering℠ helps your organization create habit-forming products, services, and brands by understanding the challenges presented by your customers’ unconscious mind. From behavioral segmentation and habit-based ethnography, to new product development and our HabitScore™ Assessment, we provide strategic consulting services to clients across a vast range of functional disciplines and industries.

For more information about ThinkGen, this white paper, or to consult with one of our habit marketing experts about changing your customers’ behavior, e-mail us at neale.marting@think-gen.com or visit www.think-gen.com/the-habit-hub
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Executive Summary

The ThinkGen Model of Habitual Behavior

Globally, nearly $60 billion is being spent on market research that aims to uncover the true reasons behind consumer behavior. Traditional methodologies for uncovering this information, such as surveys, focus groups, and interviews, only examine the consumer mind at the conscious level. Recently, techniques like ethnography, biometrics, and “neuromarketing” have emerged to look at a deeper level of consumer behavior. However, integrating these new methods with all the other research data available is difficult, primarily because the basic assumption about the consumer—that she makes rational and conscious decisions—is false. The last 15 years of brain science research finds that the vast majority of behavior is unconscious, but current marketing models do not reflect this reality. This discrepancy causes several issues:

- There lacks an integrated, holistic view of the consumer
- Research processes are corrupted by the misunderstanding of behavior
- Traditional models are linear and rigid, not dynamic like the actual brain

The solution to these issues is a new model of consumer behavior, one that corrects them by recognizing that unconscious habits are central to consumer behavior. The ThinkGen Model of Habitual Behavior attempts to represent the consumer mind from this perspective.

Strength of Habit

The central problem with traditional consumer behavior models is that they presume that every choice or behavior begins with a conscious, rational decision. The Habit Model posits that there is no “beginning” to consumer behavior, but that consumers approach every interaction with a brand, product, web site, or store with some level of habit strength already established. Marketers should understand where their consumer is operating along this continuum from consciousness to unconsciousness, which the model breaks into three categories:

- **Pilot** mode represents a consumer that is consciously attending to the purchase or use of a product or service; this occurs in rare situations where the experience is completely novel or some extraordinary factor has intruded to disrupt normal unconsciously-motivated behavior.
- **Co-Pilot** mode represents a consumer’s use of heuristics or conditional rules to partially automate behavior in situations of mild complexity.
- **Autopilot** mode represents habitual purchase and usage behavior, where the consumer is completing tasks independent from conscious intent, needs, or goals.

The brain is constantly trying to automate its behavior and form habits. It is critical that marketers respect the large and active role that unconscious behavior plays in every consumer action and adjust their marketplace approaches accordingly.

Context & Cues

Habits form when a behavior is repeated and rewarded inside a stable context. By frequently performing an action in a constant setting, the unconscious mind learns to associate that environment, and the various stimuli within it, with that particular behavior and its outcomes. The Habit Model
Executive Summary

considers Context in two ways:

• The Context is a framework used by the unconscious mind to organize its world. All behavior, habitual or not, occurs within a context. Context can be defined by a situation, time of day, location, or even internal and external goals—the critical importance is that the brain distinguishes one context from another and changes its behavior in kind.

• Sub-Contexts are emotional vectors that typically lie below conscious awareness, but when triggered by external or internal events and elevated to conscious awareness they can interrupt habitual behavior.

Understanding Context allows marketers to get a better understanding of the conscious and unconscious elements that shape behavior.

Through repeated exposures, the mind begins associating various stimuli within a context with behaviors and their outcomes. With repetition, this process turns stimuli in the environment into cues that the unconscious mind uses to automatically initiate behavior. Cues can be internal or external, and are essential to habit formation. Marketers should work to take control of the cues that automate behavior, because a consumer on autopilot is not consciously considering messaging or value propositions, but automatically responding to the cues around her.

Behavior Feedback Investment

Any action that a consumer takes in response to a product or service, including inaction, amounts to a behavior. With each repetition of a behavior within a context, the mind is gathering information on the behavior and its outcomes. By collecting and interpreting this conscious- and unconscious-level feedback, the brain learns whether or not it should perform that behavior in the future. Feedback comes in three forms:

• Reinforcement is feedback that makes a behavior more likely to occur in the future.

• Punishment is feedback that makes a behavior less likely to occur.

• Neutral feedback provides no information that will affect future behavior.

These feedback mechanisms are tangible and occur shortly after a behavior is performed. Behavioral Beliefs are a type of feedback in which the brain uses a mentally-constructed belief about the outcome of the behavior as reinforcement or punishment. Behavioral Beliefs often occur when there is no tangible feedback to a behavior (either because it does not exist or there is too long of a delay to have an impact) but can operate concurrently with real feedback.

Everything that someone puts into a behavior cycle creates inertia, termed Behavioral Investment. One way to understand Investment is that each time a cycle is completed, inertia increases. Investment increases the more time, energy, and money we spend on a behavior. The learning process is an organic one; there is no clear beginning or end. The brain learns from feedback generated by a behavior, and that learning impacts future performance of the behavior. A feedback response can either strengthen or disrupt habitual behavior. Emotion can act as a catalyst for this learning process, amplifying the effects of feedback. By reinforcing consumer behavior and leveraging emotion to aid the learning process, marketers increase the chances of repetition and, in turn, the chances of habit formation around their brand.

Using the Habit Model

The ThinkGen Model of Habitual Behavior is a powerful new tool for marketers, designed to show the consumer in a dynamic, ongoing relationship with brands and the environment. Marketing organizations are just beginning to recognize that the central role of habits in consumer behavior has far-reaching and profound implications. Using the model, marketers can segment consumers by context and behavior, use advertising to train customers and establish cues for product purchase and use, and design products to incorporate feedback mechanisms to encourage repeat usage. By understanding the process by which the brain forms and strengthens habits in the unconscious mind, marketers can design better experiences, launch more successful products, and create habitually loyal customers.
The American consumer is examined, questioned, prodded, poked, monitored, spied upon, and analyzed with an intensity normally reserved for border crossings into totalitarian countries. Motivating this meticulous scrutiny is the trillions of dollars spent by consumers every year in grocery, department and discount stores, online, via catalogue, mobile phones, apps, and every other imaginable method of exchange. Globally, nearly $60 billion is spent on market research in the hope that the insights derived will help companies design better, sell more, advertise more effectively, and choose the correct channels of distribution.¹

The past decade has seen a number of insightful new market research methods emerge as solutions to the inability of traditional surveys and focus groups to capture much of the ‘why’ behind what consumers do. These methods include sophisticated observation and deep interview techniques that fall under the category of ethnography. To capture emotional responses that are difficult or impossible for consumers to explain, researchers employ biometric measures to track everything from brain waves to heart rate to respiration. The most technologically advanced testing involves the analysis of the consumer’s working mind using neuroimaging technologies like fMRI and PET scans. These last sets of techniques forms the basis of a new discipline termed “neuromarketing”

Though these innovative methods of market research are providing unimaginable insights, the integration these insights into a coherent picture of the consumer remains elusive.¹

2. *The Theory of Buyer Behavior* by John Howard and Jagdish Sheth (1969) was the first model of consumer behavior. It viewed consumers as conscious and rational decision makers and was highly influential on subsequent consumer behavior models.
Over the past 15 years, research from neuroscience, cognitive and behavioral psychology, behavioral economics, and numerous other brain science fields has come together to unveil a counter-intuitive reality: the bulk (up to 95%) of human behavior is the result of unconscious mental processes. The problem now is that though it is understood—at least by researchers—that most of human behavior is unconscious, all marketing models are based on the premise that consumers generally make conscious decisions. This fundamental error has resulted in disappointing results from all areas of the marketing discipline:

**Marketing lacks an integrated, holistic view of the consumer.**

Most market research is narrowly focused to answer specific questions and to reduce complexity that might confound the study. Integrating findings across studies is difficult because there lacks a mechanism to dynamically combine results. Consumer insight organizations might hire an ethnographer to study product usage in the home, as well as sponsor research delving into the elasticity of product pricing, while simultaneously testing the emotional engagement for a new product advertisement. Each study generates significant data with potential for illuminating discoveries, but the findings must be considered in isolation because there is not a functional model of consumer behavior that can tie these concepts together.

**Core marketing research compromised by incorrect assumptions about the underpinnings of consumer behavior.**

For decades companies relied on consumer insights generated from surveys, customer interviews, and focus groups. Each of these techniques is incapable of revealing the motivations behind behaviors that were driven by unconscious habits—consumers cannot consciously access the part of the brain that initiated the behavior. When a consumer is asked a question about the purchase or use of a product, they assume there must be a rational explanation for their behavior and proceed to make one up on the spot. This biased information infests a company’s models, strategies, and basic understanding of its customers. The distorting lens of the conscious brain paints an incomplete and fuzzy portrait of the consumer.

**Traditional marketing models do not represent the dynamic and organic process of human behavior.**

Most marketing models posit the beginning of consumer behavior as need recognition, or the conscious awareness of a need or want. In reality, the vast majority of behavior occurs without conscious awareness. Because of the primacy and potency of unconscious behavior, it is not sufficient to simply add an unconscious element to existing models. Consumer behavior is not a rigid, linear process.

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3. Much of this research is explained in Neale Martin’s *Habit: The 95% of Behavior Marketers Ignore*. Additional summary sources include Wendy Wood and David T. Neal’s article “The Habitual Consumer” (2009).
4. Beilock & Carr, 2001; Foerde et al., 2006
These deficiencies complicate marketing decisions every day. Despite the highly refined research technologies available and the rich consumer data generated, marketers are still largely forced to make sense of each piece of research information individually and use reasoned intuition to make choices. The learnings from interdisciplinary brain science research necessitate a new marketing model that places unconscious habits at the center of consumer behavior. This new model of consumer behavior must take into account the dynamic nature of the human brain and how its physiology changes in light of experience with brands and the world at large. This model also needs to show how the conscious and the unconscious minds of the consumer work in concert to solve novel and routine problems. The ThinkGen Model of Habitual Behavior is the first attempt to bring these concepts together.

A Quick Introduction to Habits

“The chains of habit are generally too small to be felt until they are too strong to be broken.”

- Samuel Johnson

ThinkGen’s Model of Habitual Behavior emerged from brain science research that unveiled the brain’s overwhelming reliance on unconscious habits to drive the majority of behavior. The term ‘habit’ in everyday parlance describes many types of behaviors and situations, from cigarette addiction to dietary tendencies. The authors of this paper utilize a specific definition of habit that is generally agreed upon by the scientific community.

A habit is an automatic behavior that operates outside of conscious awareness, as well as independent of goals and intentions. It occurs in a stable setting, or context, and is cued by stimuli within that context. Habits form as the brain learns through frequent repetitions to associate particular behaviors (e.g., buying a brand of cereal) with internal (e.g., hunger) or external (e.g., brand name or logo) cues within a particular contextual situation (e.g., stocking up at the grocery store). In future experiences with the context, the brain will respond automatically to these cues and perform the behavior without conscious input.

Habits are incredibly efficient. They are quick to activate, reduce the search for alternatives, and are performed as the path of least resistance. The brain is constantly working to create unconscious habits in order to free up resources for the conscious mind; habit formation is the rule, not the exception. The Habit Model illustrates the dynamic nature of consumer behavior and provides a means for marketers to understand the process by which the brain forms and strengthens habits in the unconscious mind.

For more, see Habit: The 95% of Behavior Marketers Ignore by Dr. Neale Martin, Senior Vice President, Habit Engineering™, ThinkGen.
The ThinkGen Model of Habitual Behavior

The Habit Model

**Strength of Habit**
- Conscious
- Heuristic
- Unconscious

"Pilot" → "Co-pilot" → "Autopilot"

**Cue**

**Behavioral Beliefs**

**Feedback**
- Punish
- Neutral
- Reinforce

**Learning**
- Disrupt
- Strengthen
The central problem with early conceptualizations of consumer behavior is the presupposition of conscious thought preceding action. In reality, unconscious processes drive the majority of behavior. Some research suggests that no behavior originates with a conscious decision. These statements appear so counter-intuitive that they seem false at face value. But a look at even the most common purchase experience reveals how intuition has failed. A mom’s typical weekly trip to the grocery store involves the navigation of a building with nearly 50,000 square feet of space, 45,000 individual SKUs, and hundreds of other shoppers and store personnel, not to mention the one, two, or three children that may be in tow. A fully conscious consumer, rationally assessing her needs before making a decision (comparing prices, evaluating food labels, considering alternatives, etc.), would be quickly overwhelmed by sensory overload and cognitive limitations. Yet, in an average shopping trip, a mom needs just 25 minutes to identify and purchase the thirty or so items she needs. This amazing cognitive efficiency is the result of highly ingrained purchase habits.

A fully conscious consumer, rationally assessing her needs and considering her options before making a purchase decision, would be quickly overwhelmed by sensory overload and cognitive limitations.

Instead of positing the decisive ‘beginning of consumer behavior’ as a conscious evaluation of needs, the model begins with a new perspective on how the consumer behaves in the wild. To accurately evaluate consumer behavior, a marketer must first understand how consciously or unconsciously that consumer is interacting with the brand, product, web site, or store—her habit strength.

1. Dijksterhuis, Chartrand, & Aarts, in press
2. See the Food Marketing Institute, Supermarket Industry Overview, 2008
A consumer continuously operates in the world with some level of habit strength. The more familiar the environment and the more routine the behavior, the stronger the habit is relied upon to navigate the situation. Conversely, the more novel the setting or problem, the more the conscious mind attends to the circumstances. Marketers should assess the consumer’s strength of habit along a continuum from consciousness to unconsciousness that is broken into the categories of Pilot, Co-Pilot or Autopilot.

**Autopilot (Unconscious)**

Autopilot mode represents habitual purchase and usage behavior and is the state of being that enables a person to complete tasks that are not linked to conscious intent, needs, or goals. Because the conscious mind can only think of one thing at a time, it off-loads as much as possible to the unconscious mind. Through repeatedly solving problems in stable situations, the unconscious mind can master a wide range of complex behaviors.

Habit research from multiple disciplines reveals that most behavior involves unconscious responses to cues in the environment, meaning that consumer behavior very often falls into the autopilot category. Marketing efforts that assume or require conscious recall or processing of information are often defeated by consumer autopilot behavior. For example, the failure rate of new product introductions persistently hovers around 80–85%. New products that test well in the lab often wither and die in the marketplace. An artificial testing environment places subjects in a novel situation, which engages the conscious mind to make rational evaluations of the new product. However, when the consumer is back in her natural shopping environment, she will return to her autopilot behaviors and is likely to not even notice the new product. Even if she does notice it, she will be unlikely to purchase the new product unless her habitual behavior path is disrupted.

Marketing success comes from making it easy for consumers to automate repurchase. Brands, packaging, distribution, merchandising, and quality control allow customers to buy and buy again without having to think about their purchase.

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6. Cooper, 2001
Pilot (Conscious)

A consumer that is consciously attending to the purchase of a product or service is in Pilot mode. This may involve weighing costs and benefits and making comparisons with competing products, as well as comparing purchase to non-purchase outcomes. Pilot mode is more likely to occur when a consumer is in a novel purchase situation or if some element of the routine purchase behavior has changed, such as price, features, or distribution channels, that activates the consumer’s conscious awareness. Also, purchases that involve high risk or high expense will engage conscious processing. Although most models of consumer behavior assume the customer is in Pilot mode at all times, fully conscious decision-making is a rare and fleeting experience.

When a consumer encounters a novel situation, the conscious brain becomes active. ‘Novelty’ relates to both the environment one is in as well as the particular situation one is experiencing. A novel environment, such as the first visit to a restaurant, activates many conscious mental processes, giving the consumer a strong engagement with his surroundings. A novel situation, such as seeking out low-carb foods at the grocery store in reaction to a recent doctor visit, likewise engages the conscious mind and the consumer becomes aware of his behavior. These instances of novel consumer experiences absorb the shopper with the setting and information around him as he attempts to rationally decide on an outcome.

The Mirage of Conscious Control

Even in novel situations and environments, the conscious mind may be aware of what is going on but still not initiate a behavioral response. Behavior most often leads, not follows, conscious intent. For example, Americans almost uniformly enter a store and go to their right rather than left or straight ahead. The conscious mind may believe that the right-hand turn was made to head for the fruits and vegetables, but the reality is the turn to the right happens in virtually every store the consumer visits. This section of the model illustrates the challenge: even when ‘thinking’ about a new product, what consumers do is still largely a result of unconscious mental processes. And most of the time customers are shopping, they aren’t ‘thinking.’

For marketers to disrupt autopilot behavior, they must understand how habitual the behavior is at each point in the purchase or usage process. A new can of soup or cleanser on the grocery shelf is likely not enough to break through to a consumer that has been buying the competing soup or cleanser for years. A heavy dose of advertising might create awareness, possibly even interest, in trying the new product, but unless the consumer’s autopilot behavior is disrupted as she walks down the grocery aisle, it is highly unlikely she will consciously attend to the new product. Coupons, large displays, and positioning in store might be enough to initiate trial, but this still might not be enough to disrupt a strong habit on a subsequent store visit.

7. Wood, Tam, & Guerrero Witt, 2005
8. Sorensen, 2009
Co-Pilot (Heuristics)

In many familiar situations, consumers experience a relatively narrow range of choices that do not require a fully conscious evaluation, yet are too complicated, high-risk, or unfamiliar to be relegated to automatic habitual choice. In these Co-Pilot situations, consumers are likely to employ heuristics (simple rules) to form partially habitual behaviors. For example, when a product is on sale, consumers may have a heuristic that causes them to purchase multiple units. Brands themselves become heuristics in situations where the perceived need for quality is high or the decision factors are complex, such as buying a name brand when purchasing new technology.

A consumer in Co-Pilot mode employs heuristics to form partially habitual behaviors, such as buying multiple units when a product is on sale.

Consumer behavior cannot be evaluated without understanding where the consumer is along the continuum of habit strength during purchase or usage. Marketers have long assumed consumers make rational and conscious decisions, yet most of consumer behavior is occurring unconsciously. As a result, advertising, pricing, and, indeed, the entire concept of “the marketing mix” are often ineffectual. This does not imply that conscious processing is unimportant. On the contrary, the model posits that there is an active interplay between the conscious and unconscious minds, with consumers switching back and forth in response to the environment and the situation. However, as the model illustrates, the conscious consumer mind is always working to off-load decisions to the habitual mind to form habitual behaviors. It is critical that marketers respect the prevalent role unconscious behavior plays in every consumer action, and adjust their marketplace approaches accordingly.

Familiarity drives habits. Familiarity combines the recognition of environment with the congruence of cues within the environment that lead to reliable outcomes. If the mind perceives an environment as familiar, it enables the unconscious to automate behavior. If the environment is seen as novel, the conscious mind becomes actively engaged to interpret its surroundings and figure out what to do. The human mind assesses familiarity and forms habitual behavior through the perception of context.1

Habits form when a behavior is repeated and rewarded inside a stable context. By frequently performing an action in a constant setting, the unconscious mind learns to associate that environment, and the various stimuli within it, with that particular behavior and its outcomes.2 Once the behavior is habitual, the mind no longer needs conscious goals or intentions to launch the behavior3—unconscious recognition of a context and contextual cues is enough to initiate a habit response.4

Across disciplines, researchers use “context” as a catchall phrase meaning the environment, situations, and tasks that serve as a reference for habit formation. But contexts are often co-created by the conscious and unconscious minds. Consumers create higher-ordered goals around structured activities like taking care of the family, going to work, and performing weekend chores that further distinguish context.5 These goals are often linked to emotions and other factors of concern that can greatly impact how the brain interprets a given context. The model illustrates this process by examining behavior both by the over-arching Context as well Sub-Context vectors that influence it.

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1. Wood & Neal, 2009
4. Wood & Neal, 2009
5. Aarts, Verplanken, & van Knippenberg, 1998
Context

The context is a situation-specific framework that the mind uses to organize its world, and habits depend upon them for their existence. For example, most consumers have a ‘Going to Work’ context. On a typical weekday morning, they routinely engage in multiple tasks: waking to an alarm at a specific time, showering, shaving, washing hair, drying hair, styling hair, putting on make up and deodorant, choosing clothes, eating breakfast, and driving or taking public transportation to work, etc. Most days, each of these tasks is performed completely on autopilot. The context surrounding these behaviors defines their parameters and thresholds and helps dramatically reduce the number of conscious choices that have to be made.

A context is a filter that shapes consumer perception. ‘Going to Work’ defines the subset of a wardrobe that is acceptable for the workplace. Similarly, it may outline a particular way hair is styled and the food is prepared for breakfast. These parameters, determined by corporate policy (dress code) and as part of the logistics of getting to work (amount of time available to prepare breakfast), make consumers more efficient by reducing choices and establishing thresholds of awareness that determine what stimuli the consumer perceives. In dressing for work, the jeans and running shoes get ignored—only the ‘work clothes’ are given consideration.

Contexts can be universal, cultural, segment-specific, or individual constructs. They can be defined by settings, locations, times of day, external requirements, or internal goals. They are a critical component of habit formation because they help the unconscious mind narrow down the thousands of cues in an environment to the ones relevant to the situation at hand. A product, brand, or message that is not associated with a context will be ignored as irrelevant.

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6. Verplanken, Myrbakk, & Rudi, 2005
The brain has an innate ability to unconsciously recognize context and respond with the associated habitual behaviors. Marketers have long operated under the simple illusion that the consumer views brands in isolation, like a painting hanging on an art gallery wall. The reality is a far messier organic process where products are integrated into behavior, typically outside of conscious awareness. This insight leads to a primary shift in the core marketing goal: become a consumers’ habit, not their choice. And a strong and stable context is the first step in achieving this goal.

In 2009, several researchers demonstrated the power of context-based habits in a clever experiment involving moviegoers and popcorn. Participants in the study were invited into a darkened theater, given a bag of popcorn and a bottle of water, and asked to rate a series of movie trailers. However, the actual experiment was this: some of the popcorn was fresh (popped that day), whereas other bags were stale (over one week old). The audience, split into groups of habitual and non-habitual popcorn eaters, had their popcorn bags collected and weighted after the trailers had completed. Participants who rarely ate popcorn, predictably, disliked the stale popcorn and ate much less than those who had fresh popcorn. However, habitual popcorn eating participants were different. They consumed just as much stale popcorn as those with fresh bags did, yet when asked about the quality of the popcorn, they expressed dissatisfaction with it for being stale. Liking and preference did not influence their consumption; rather, the movie theater context triggered the popcorn-eating behavior.

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8. Neurological research shows that, as a behavior is repeated, goal-oriented structures in the brain have reduced activity and systems linked to stimulus control and automatic responses increase in activity. The brain physically changes the way it interprets the environment once a habit has been formed (Yin & Knowlton, 2006).
Sub-Context

Just because behavior is largely unconscious does not imply that consumers are automatons, mindlessly repeating past actions. Humans have a highly evolved adaptive mechanism that allows them to alter even the most highly habitual behaviors if the conscious mind is actively engaged strongly enough to disrupt the autopilot mode. Sub-contexts are emotion-based vectors of concern that typically lie below conscious awareness but can be elevated to conscious consideration to interrupt habitual behavior. Typically, large categories like convenience, economy, family, morals, and health serve as sub-context vectors.

Each habitual behavior in a given context more or less aligns with a consumer’s sub-context requirements. For example, in the time-compressed contextual event of grabbing breakfast before heading off to work or school, convenience typically trumps nutrition (a health sub-context). But if the health vector is elevated into concern, say from a tight-fitting pair of jeans or ten extra pounds on the bathroom scale, then the consumer may consciously attend to her breakfast choice and eschew the carbohydrate-laden bagel for a piece of fruit instead.

An elevated sub-context vector may temporarily impact behavior or can induce lasting change. Think of a sub-context vector as a tuning fork. A single hit will emit a vibration for a short period of time, and then go silent. The conscious reminder to make lower-carbohydrate breakfast choices will fade, and behavior will return to bagels, the habitual choice. But if the vector is continually struck, the disruption in habitual behavior may be long enough to produce enough repetitions of alternative behavior to result in new habits being formed.

The economic recession of 2008 was deep and long enough to change habits across a wide spectrum of behaviors. The near-constant reminders of the economic vector brought many consumers’ spending habits into conscious awareness for so long that the behavior of limiting discretionary spending and trading down to store brands became habitual. These new habits extended far beyond the actual recession.

Marketers need to understand their consumer’s underlying sub-contexts and actively monitor the marketplace for messaging or events that may elevate these vectors to conscious awareness. Marketers must align their brand with what is going on in the world that might be elevating behavior to conscious awareness, whether that’s health, economy, or ease of use, or some other factor.

When a vector is continually struck, the disruption in habitual behavior may produce enough repetitions to create new habits.

The economy vector has disrupted consumers’ spending behavior for so long that new, frugal purchase behaviors are becoming habitual.

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Context is a multi-faceted construct that the brain uses to streamline its decision-making. To be considered for purchase or use, products and services need to be intrinsically linked to a specific situation, they need to be associated with a behavior, and they need to align with a consumer's internal emotions and concerns. Context is a critical element in the Habit Model because it recognizes the conscious and unconscious frameworks that shape and influence behavior. Marketers who do not account for context or sub-context are unlikely to develop products or services with the correct attributes to lead to habitual use or devise advertising that will properly resonate with the unconscious mind.
Cues

Through repeated exposures, the unconscious mind begins associating various stimuli within a context with behaviors and their outcomes. With repetition, the process turns stimuli in the environment into cues that automate behavior. Ivan Pavlov demonstrated this process more than a hundred years ago. Eventually, contextual cues trigger behavior independent of conscious intentions and goals. This creates significant cognitive efficiency, enabling the conscious mind to contemplate novel problems or attend to other matters.11

Any stimulus that occurs in concert with a contextual behavior can potentially become a cue, but this process occurs fastest when there is a logical, repeatable, and perceivable connection. Cues can be internal or external. Internal cues can be moods, thoughts, feelings, or state changes recognized (consciously or unconsciously) by the mind, such as hunger. External cues can be anything perceived by the senses. Brand names, logos, packaging, jingles, and slogans can become cues in the shopping environment.12 Even a time of day, other people, or an entire context could become a cue.13 Cues can form through pairing, as in classical conditioning. Advertisers use this technique relentlessly, putting brands in the hands of beautiful models and celebrity endorsers.14 Cues can also be learned through operant conditioning where a consumer is actively working with a product to solve a problem or create a benefit.15

Cues are essential to habit formation, and critical to any successful marketing effort. When cues are managed well, they can lead to nearly addictive responses, as with text messaging. The auditory or vibratory sensation is so powerfully associated with an incoming text that users have their phones in their hand before they are consciously aware of the stimulus. However, marketers often neglect to take control of cues to activate behavior, as Tropicana learned the hard way.

In 2009, Tropicana changed their logo from the iconic “orange with a straw” to a more abstract design, and the results were disastrous: a 20% drop in sales in less than a month. While the media proposed many conscious-mind reasons for the logo issue (e.g., “customers were passionate about the orange”), the cause behind the sales decline was that Tropicana removed their customers’ cue for buying orange juice. A consumer shopping on autopilot is not aware of her need states or preferences, but automatically responding to the cues around her. The Tropicana logo had become a cue for buying orange juice. Without the old design to trigger their buying behaviors, Tropicana became background noise and consumers walked right by. Without associated cues, a marketer must actively sell the brand at every purchase occasion.

12. Warlop, Rameshwar, & Van Osselar, 2005
13. Wood & Neal, 2009; Wood, Tam, & Geurrero Witt, 2005
15. Nord & Peter, 1980
Habits are formed through the repetition of behavior in a stable context. Throughout these repetitions, the mind is assessing the behavior and its resulting outcomes. By gathering this conscious- and unconscious-level feedback, the brain learns whether or not to perform the behavior in the same context in the future.

Behavior

Any action that a consumer takes in response to a product or service, including inaction, amounts to behavior. Behaviors typically occur within a context and in response to internal or external cues: to purchase or not to purchase; to buy the usual brand or try something new; or to stock up or hope the product is on sale next time. How one pays for a purchase is also an important behavior, with phone apps beginning to rival credit card purchases. By adulthood, most consumers have a vast storehouse of scripted behaviors for contextualized situations and can make these decisions without any conscious consideration. This repository allows consumers to move quickly through a grocery or department store, as well as the kitchen and the pantry.

Behavior can be simple or inordinately complex. Though it is hard to comprehend, the vast majority of behavior is initiated by the unconscious mind. The conscious mind might be aware a choice was made, but in the words of Dijksterhuis et al, “these choices were introspectively blank.” This means that there were no conscious thought processes that a consumer can review to explain why a choice was made.

2. Dijksterhuis, Smith, van Baaren, & Wigboldus, 2003
However, just because no conscious thought process is available does not mean the behavior is not fueled by intention. Every behavior begins as a choice driven by reason. The conscious brain is highly involved in early behavioral learning, making decisions, executing actions, and assessing the results. Over time, this conscious activity dies down, and unconscious habits take over. Habit engineering is simply shortcuts developed by the mind from past successful behavior. The feedback process helps the brain determine which behaviors are successful.

Expertise is the process in which knowledge and training go from the conscious to the unconscious mind. Chess masters are able to rapidly play multiple games against competent opponents because they are not consciously analyzing each move, but instead relying on advanced unconscious pattern recognition. The same process occurs with physicians in diagnosing and treating patients. In his groundbreaking book How Doctors Think, Jerome Groopman, MD asserts that experienced doctors are making diagnoses within seconds of seeing a patient, which is not how they are trained.

Feedback

Feedback is the mind’s perceived consequence of a behavior. After a consumer makes a purchase or uses a product, anything that comes afterward might be interpreted as feedback from that action. This feedback interpretation occurs at both the conscious and unconscious levels. Immediate feedback effectively trains the unconscious mind, while the conscious mind can bridge the gap between a delayed response and a behavior. However, the closer in time the feedback is to the behavior, the more likely the outcome will affect the consumer’s future actions.

Feedback comes in three essential flavors: Reinforcement, Punishment, or Neutral. Reinforcing feedback makes a behavior more likely to occur in the future. Punishing feedback makes a behavior less likely to occur. Neutrally-received feedback provides the brain no information that will affect the behavior, either because the response was not strong enough to alter future likelihood, or the brain ignored the response.

Reinforcement is Not Always Positive

Reinforcement and punishment are often regarded in absolute terms: reinforcement is a reward with sensory appeal, like a cookie, and a punishment is an uncomfortable or painful experience like a spanking. But reinforcement and punishment are not always so obvious.

A critical insight for marketers is that punishment and reinforcement only refer to the effect on future behavior when the feedback is received. Both can be positive or negative. The annoying buzzer on an alarm clock is a negative reinforcer. The irritating sound stops when a sleeper performs the behavior of hitting the ‘off’ or ‘snooze’ button. A shock is a positive punishment. Its introduction decreases a customer’s propensity to use as many minutes in the future.

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3. Thorn, Atallah, Howe, & Graybiel, 2010
4. Schultz, 2006
5. Pryor, 1984
When a consumer buys and eats an ice cream cone on a hot summer day, the ice cream is sweet, cold, and creamy, and the experience is highly reinforcing. If the consumer is buying a pint of premium ice cream for later consumption, the ice cream is actually consumed hours or day later, and the taste may have little impact on the likelihood of future purchase. Products and services that have a large gap between the purchase or usage behavior and the feedback outcome will require more repetitions for consumer habituation. Further, other factors, like the price of the ice cream at checkout, might be perceived as punishing and actually decrease the likelihood of repurchase.

Marketers used to think that a measure of satisfaction would be an indicator of future use, but that metric does a poor job of predicting future purchase. Instead of striving for customer satisfaction, marketers should focus on customer reinforcement. By reinforcing consumer behavior, marketers increase the chances of repetition and, in turn, the chances of habit formation around their brand. In addition, marketers should understand what customers find punishing and reduce or eliminate this feedback.

An example of this is the genius of Apple’s intuitive design and interface. Beginning with the iPod and extending through the iPhone and iPad, Apple products eliminated one of life’s great frustrations—the need to consult the user manual.

**Behavioral Beliefs**

Most feedback mechanisms are physically experienced by the consumer and occur shortly after a behavior is performed. However, sometimes the perceived feedback is separated by time from the original behavior (or feedback is nonexistent), leaving the brain with no feedback from which to learn. However, a behavioral belief can bridge that gap and link a behavior to some future outcome that may or not be connected, such as taking a daily aspirin to prevent heart attacks.

Behavioral Beliefs are a type of feedback in which the brain uses a mental model to link cause and effect about the outcome of the behavior as reinforcement or punishment. For example, many consumers habitually take a daily multi-vitamin, despite a lack of any feedback (or scientific evidence showing health benefits) in doing so. These habitual vitamin-takers are reinforced by a belief that the behavior is beneficial, not by any actual reinforcement. Sometimes a behavioral belief can override or reinterpret existing feedback. Gym rats live by the mantra, “No pain/No Gain” interpreting sore muscles as feedback of a good workout. Listerine users do not view the mouthwash’s burning sensation as punishing but believe that the harsh taste is a sign that “it’s working.”

The pharmaceutical industry is especially sensitive to the power of behavioral beliefs. Roughly 25% of prescriptions written are never filled, and of those that are, only 50% are taken to completion. While an Advil might reliably get rid of a headache (negative reinforcement), a statin is prescribed to alleviate a condition for which the patient has no symptoms—high cholesterol. The only feedback will be punishing, such as muscle cramps. Without a powerful behavioral belief, lack of compliance is inevitable.

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6. Pryor, 1984

7. Satisfaction, once above a minimum acceptance level, does not show a proportionate increase in consumer choice (Neal, 1999).
Habit Maintenance

For already habitual behaviors, only intermittent reinforcement at moderate levels is required to maintain the behavior. In fact, constant reinforcement or abnormally large rewards can be a disruption. Constant reinforcement creates a tit-for-tat scenario where the mind is consciously seeking an outcome—if the reinforcement doesn’t occur every time, behavior changes quickly in response. Abnormal rewards engage the conscious mind and focus the brain on the behavior, and future reinforcement that does not match the ‘jackpot’ previously received could be seen as a punishment. Marketers should be aware that learning for non-habitual customers differs from that of habitual customers. A strategy that leads to strong habits in one group may be disrupting to the other.

Learning

Traditional models of consumer behavior are linear depictions of decision-making with a definitive beginning and an ending that is believed to lead to brand attitude. The ThinkGen Habit Model posits an organic process with no clear beginning and an end that reflects changes in brain physiology. The brain learns from feedback generated by a behavior and that learning impacts future performance of that behavior.

A feedback response interpreted by the brain can either strengthen habitual behavior or disrupt it. A reinforcing experience with a brand makes repurchase more likely, while a punishing experience makes future purchase less likely. Reinforcement and punishment also impact how conscious the consumer will be the next time he performs a behavior in a context. For non-habitual behaviors, a reinforcing round of feedback will strengthen context and cue association and increase the habit strength. Punishing feedback disrupts habits and re-elevates behavior to conscious scrutiny.

Emotion

A critical component to learning, as well as to recall, is the role of emotion. Research from several disciplines reveals emotion as critical for storing and recalling memories, forever altering the belief that rational decisions devoid of emotional considerations are ‘better.’ Indeed, researchers now understand that decision-making requires emotions.

Emotion is a catalyst. When behavioral feedback is paired with an emotion, the consumer is more likely to learn from that behavior. In the model, emotion amplifies the effects of reinforcement and punishment. With the proper use of emotion, marketers can encourage faster learning, more repetition, and habit formation. More importantly, if marketing communications do not evoke an appropriate emotional response, it is less likely the message will be attended to, stored in memory, or recalled.

10. See Innerscope Research, Media Effectiveness Study, 2010
The ThinkGen Model of Habitual Behavior is a powerful new tool for marketers. Traditional models of behavior assume consumer behavior as conscious and deliberate, relegating thoughts, feelings, and actions to simplistic box-and-arrow processes. The Habit Model is designed to show the consumer in a dynamic, ongoing relationship with brands and the environment.

While this paper divides the model into sections for explanation, the process itself is organic and untidy with no clear beginning or end. Even new-to-the-world innovations will be viewed through the consumer’s rich history of interacting with brands, products, companies, and services. Behavior is iterative, and each time a behavior is repeated, the feedback and surrounding environment shape and mold future behavior, most of the times subtly, occasionally dramatically. The products that once thrilled consumers are now used with boring indifference (Uber), and even products that were once major aggravations become part of accepted routines (TSA).

Marketing organizations are just beginning to recognize the central role of habits in consumer behavior. Market researchers must listen to what the consumer cannot tell them. New product developers must design for both minds of the consumer and recognize that a positive conscious evaluation of a new product is not enough to change a consumer’s current habitual product usage. A customer does not need to be satisfied to use a marketer’s products, but he does need to be reinforced. And while consumers may not be walking around thinking warm and fuzzy thoughts about each brand they use; those brands are powerful cues that represent the whole of a customer’s experience with them.

The applications for the Habit Model are many. Marketers can segment consumers by context and behavior instead of by demographics and attitudes. Advertising can be used to train consumers and establish cues for product purchase and use. Web sites and user interfaces can be designed to incorporate feedback mechanisms to encourage repeat usage (this is already emerging in what is loosely called “gamification”). The model does not seek to undermine or destroy the standard marketing platforms; it refocuses them on what is important.

The Habit Model should not be read as a step-by-step guide to ensnaring the consumer’s unconscious mind. Rather, by capturing the complexity that forms the whole of consumer behavior, the model empowers marketers to take an integrated approach to working with both the customer’s conscious and unconscious minds. Understanding the process by which the brain forms and strengthens habits in the unconscious mind enables marketers to design better experiences, launch more successful new products, and create habitually loyal customers.
Using the Habit Model

Strength of Habit
- Conscious
- Heuristic
- Unconscious

“Pilot” — “Co-pilot” — “Autopilot”

Context

Cue

Behavior

Feedback
- Punish
- Neutral
- Reinforce

Learning

Disrupt — Strengthen

Behavioral Beliefs

Sub-context
The research supporting this paper is expansive and represents the most current understanding of unconscious behavior across the disciplines of marketing, market research, behavioral and cognitive psychology, neurology, and sociology. For deeper insight into the brain science behind habit-based marketing, the authors highly recommend exploring the publications below.


References


References


“Habits are either the best of servants, or the worst of masters.”

- Nathaniel Emmons

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