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Want to Perfect Your Company's Service? Use Behavioral Science

The next frontier in service management comes from the venerable field of behavioral science, where provocative psychological research sheds light on how customers feel when a company "touches" them. The take-away: five new operating principles.

by Richard B. Chase
and Sriram Dasu

WHAT DON'T WE KNOW about service management? For the past 15 years, legions of scholars and practitioners have studied the subject. They've applied queuing theory to bank lines. They've deified well-run call centers. They've measured response times to the tenth decimal point. They've built cults around "moments of truth," "service recovery," and "delighting the customer."

It may appear, then, that no stone in the service-management garden has been left unturned, not to mention analyzed, polished, and replaced. Surprisingly little time, however, has been spent examining service encounters from the customer's point of view. Specifically, practitioners haven't carefully considered the underlying

psychology of service encounters—the feelings that customers experience during these encounters, feelings so subtle they probably couldn't be put into words.

Fortunately, behavioral science offers new insights into better service management. For decades, behavioral and cognitive scientists have studied how people experience social interactions, form judgments, and store memories—as well as what biases they bring to bear on daily life. Their findings hold important lessons for the executives who design and manage service encounters. First, the research tells us a lot about how customers experience the passage of time: when time seems to drag, when it speeds by, and when in a sequence of events an uncomfortable experience will be least noticeable. Second, it helps us understand how customers interpret an event after it's over. For example, people seem to be hardwired to blame an individual rather than a poorly designed system when something goes wrong.

In this article, we'll translate findings from behavioral-science research into operating principles for service-encounter management. And we'll show how managers can optimize those extraordinarily important moments when the company touches its customers—for better and for worse.

Applied Behavioral Science

In any service encounter—from a simple pizza pickup to a complex, long-term consulting engagement—perception is reality. That is, what really matters is how the customer interprets the encounter. Behavioral science can shed light on the complex processes involved in the formation of those perceptions. In particular, it can help managers understand how people react to the sequence and duration of events, and how they rationalize experiences after they occur.

Sequence Effects. According to behavioral scientists, when people recall an experience, they don't remember every single moment of it (unless the experience was short and traumatic). Instead, they recall a few significant moments vividly and gloss over the others—they remember snapshots, not movies. And they carry away an over-

Richard B. Chase is the Justin Dart Professor of Operations Management at the University of Southern California's Marshall School of Business in Los Angeles. He is the author of "Where Does the Customer Fit in a Service Operation?" (HBR November–December 1978) and "The Service Factory" (HBR July–August 1989, with David Garvin). Sriram Dasu is an associate professor at the Marshall School.

End on an Uptick

Daniel Kahneman, a professor of psychology at Princeton University, is a leading researcher in cognitive psychology. In a 1993 experiment, he and his colleagues asked subjects to choose between two unpleasant experiences. In the first, subjects immersed their hands in uncomfortably cool water (57° F) for 60 seconds. In the second, the same subjects immersed their hand in cool water (57° F) for 60 seconds followed by 30 seconds in slightly warmer water (59° F). Even though the second sequence extended the total discomfort time, when subjects were asked which experience they would repeat, nearly 70% chose the second one.

Kahneman found similar results in a field experiment he performed with D.A. Redelmeier. They learned that prolonging a colonoscopy by leaving the colonoscope in place for about a minute after the procedure was completed—thus decreasing the level of discomfort for the final moments of the procedure—produced significant improvements in patients' perceptions of the experience.

all assessment of the experience that's based on three factors: the trend in the sequence of pain or pleasure, the high and low points, and the ending.

Not surprisingly, people prefer a sequence of experiences that improve over time. When gambling, they prefer to lose \$10 first, then win \$5, rather than win \$5, then lose \$10. There is also evidence that people pay attention to the rate of improvement in a sequence—clearly preferring ones that improve faster. And, most intriguing, the ending matters enormously. (See the sidebar "End on an Uptick.") A terrible ending usually dominates a person's recollection of an experience.

Duration Effects. Psychologists and cognitive scientists have poured enormous effort into unraveling the mysteries of how people process time. When do they pay attention to the passage of time, and how do they estimate its duration? Although much of the mystery still remains, one finding that's been verified repeatedly is that people who are mentally engaged in a task don't notice how long it takes. Another is that, when prompted to pay attention to the passage of time, people overestimate the time elapsed. A third finding is that increasing the number of segments in an encounter lengthens its perceived duration. For example, a ten-minute dance sequence consisting of four segments will seem longer than one identical in length but split into two segments.

Since perceptions of time's passage are so subjective, the obvious question is, When does duration matter? Research indicates that unless an activity is much longer or much shorter than expected, people pay little attention to its duration. There are two reasons for this. First, the pleasurable content of the experience and how it is arranged—rather than how long it takes—seem to dominate people's assessments. And second, aside from one-off transactions such as buying a cup of coffee, service

encounters are rarely identical in length, so people have only general reference points for evaluating duration. Their estimates of how long it will take to visit a tax accountant – or go to a ball game, or have minor surgery – are likely to be fuzzy.

Rationalization Effects. People desperately want things to make sense; if there's no handy explanation for an unexpected event, they'll concoct one. Behavioral scientists call this "counterfactual thinking," but it's simpler to call it second-guessing.

People second-guess because they want one clear reason for why something happened. In their mental simulation, they try to capture the specific what-ifs: "If only *x* hadn't happened, things would be different." Three characteristics stand out in this simulation. First, they view the likely cause as a discrete thing, not a continuous, intertwined process. For example, people are more likely to blame a missed plane on "the backup in the tunnel" than on a cluster of events that – in conjunction – caused their late arrival. Second, people often conclude that deviations from rituals and norms caused the unexpected outcome. Professional sports are loaded with players who follow rituals religiously: some baseball players avoid stepping on the foul line at all costs, and many basketball players have particular dribbling routines before shooting a free throw. Third, people tend to ascribe credit or blame to individuals, not systems. Even when they clearly see that the computer system caused the hotel bill error, for example, they tend to blame the clerk. They want to put a human face on the problem. One final note about ascribing blame: people are far less apt to "search for the guilty" if they think they've had some control over the process that occurred. The more empowered and engaged they feel, the less angry they are when something goes wrong.

In summary, people want explanations, and they'll make them up if they have to. The explanation will nearly always focus on something they can observe – something that is discrete and concrete enough to be changed in their if-only fantasies.

Several operating principles for service-encounter management emerge from the behavioral-science findings we've just reviewed.

Principle 1 Finish Strong

Most service providers believe that the beginning and end of an encounter – the so-called service bookends – are equally weighted in the eyes of the customer. They're dead wrong. The end is far more important because it's what remains in the customer's recollections. Sure, it's important to achieve a base level of satisfactory performance at the beginning, but a company is better off with a relatively weak start and a modest upswing at the end than with a boffo start and a so-so ending.

People's innate preference for improvement is another factor in this principle. We believe that the desire for improvement applies not only to lengthy encounters but also to short, technology-mediated encounters, such as on a Web site. The fact is, very few Web designers have thought this issue through. Most companies spare no expense to make their home pages attractive; a great deal of thought goes into questions of aesthetics, content, and navigation in the top page or two. This is an eminently logical strategy, given the need to get people to enter and engage with the site. However, too many Web encounters start strong then go downhill fast. Our cursory review of commercial Web sites uncovered an alarming number of problems: difficulty in exiting the site if an item is out

of stock; difficulty in canceling an order if the shipping charges are too high; no notification of security for credit card information, and so on. Make no mistake, the frustrated customer remembers the messy final experience far more clearly than the jazzy, supposedly sticky home page.

That which applies to short encounters goes double for longer service encounters like consulting projects. While it often makes sense to pick low-hanging fruit at the outset, a consultant would be well advised (other things being equal) to schedule the project so that a golden nugget or two appear at the end of the engagement. For instance, a consultant that's hired to reengineer a company's business processes might start with the distribution center and move to the call center later in the project, because he knows from past

Why Cruises Work

Modern cruise lines apply many of the operating principles suggested by behavioral science.

| Principle | What Cruise Lines Do |
|----------------------|---|
| Finish strong | <i>End each day on a high note with raffles, contests, shows, and so on.</i> <i>End the cruise with the captain's dinner.</i> <i>Pass out keepsakes or bottles of wine upon reaching home port.</i> |
| Segment the pleasure | <i>Pack many events into one short vacation.</i> |
| Create rituals | <i>Offer captain's dinner and midnight buffets.</i> |

experience that the call center changes will likely reap a windfall of savings. What you don't want is to have the project results become less and less impressive, even if (as is often the case) its labor costs are following a staged decline. Even though one large consulting firm had performed admirably in its yearlong reengineering project, for example, it received low marks from its client. The consultants achieved more than the goals set, but the lack of a visible upswing in results at the end left the impression of mediocrity. As it turns out, last impressions—not first impressions—endure.

Compare that with another consulting project that ended quite naturally on a high note. A statistician colleague of ours was hired to determine what factors accounted for the sales success of a new video game. The client agreed at the start that the project would be a success if the consultant's model could explain just 6% of the variability in sales among a dozen competing video games. The consultant made progress over the first three months of the project, but it wasn't until the last day of the schedule that the analysis yielded a three-factor combination that explained more than 90% of the variability in sales. (For the gamers out there, these factors were kid testing, advertising, and the number of outlets they could get the game into.) This positive surprise had far more impact than it would have had at the outset, since the clients' longer-term involvement had sensitized them to the complexity of the task. Our colleague was lucky to deliver such a clear, better-than-anticipated result; he was luckier still to have done so at the eleventh hour.

Even if you can't end with a substantive bang, it's smart to finish with a stylistic flourish. Consider the airline industry, which suffers from high levels of customer dissatisfaction due to flight delays and cancellations, inadequate legroom, and lost luggage. Without a doubt, those failures have to be addressed. But we'd guess that airlines could make up some ground if they paid more attention to their customers' last encounter—baggage collection. Why not offer a new service— aides to help passengers in the baggage claim area? Simply having someone there would show concern for passengers.

Malaysian Airlines is one of the few carriers that understands that the encounter isn't over when the customer steps off the plane. Several years ago, an acquaintance was traveling by Malaysian Airlines with her nine-month-old son. Even after nine years, she fondly recalls the help that the

flight attendants gave her with baggage collection and ground transportation. It cost the airline little to provide that end-of-encounter assistance—and it gained a loyal customer who's described that experience to fellow travelers dozens of times since. As simple as that example sounds, such small touches have a disproportionate effect on customers' recollections.

Principle 2

Get the Bad Experiences Out of the Way Early

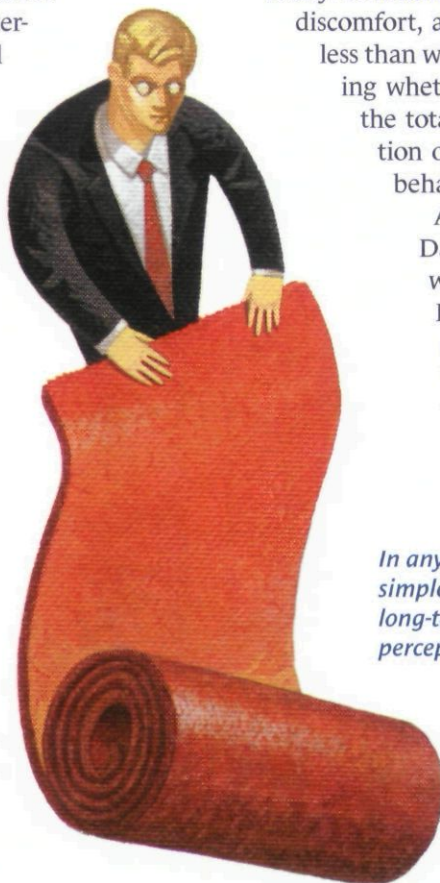
Behavioral science tells us that, in a sequence of events involving good and bad outcomes, people prefer to have undesirable events come first—so they can avoid dread—and to have desirable events come at the end of a sequence—so they can savor them.

This principle has concrete, immediate implications for how health care professionals manage their encounters with patients. Imagine Danielle, a pediatric dental hygienist, who has almost finished cleaning Asher's teeth. Asher, a skittish six-year-old and a frequent visitor to the clinic, suffers from a mild form of gingivitis and has several cavities. Danielle accidentally scrapes a particularly sensitive spot, causing the boy momentary pain. She still needs to clean two more teeth, which she is sure are not as sensitive. She could either end the cleaning now and resume on the next visit, or she could complete it today. Continuing would subject Asher to more discomfort, although it would be significantly less than what he just felt. She is also wondering whether continuing (hence, increasing the total pain) will affect Asher's perception of the cleaning experience and his behavior on subsequent visits.

According to behavioral research, Danielle should finish the job. Asher will carry away a better memory. He will remember the treatment, of course, but also that the pain "wasn't so bad at the end." Danielle will have extended a painful experience, yet because the ending was slightly less painful, Asher's overall assessment of it will improve.

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Most companies' services don't cause physical pain, obviously. And often the discomfort that's part of a service encounter occurs early naturally: the wait in line (unpleasant)



comes before the meal or the theme park ride (pleasant). When that's not the case, it may be necessary to extend the encounter to soften the ending experience.

In professional services, the unpleasantness often comes in the form of bad news. Most people want bad news brought to their attention right away. Unfortunately, service providers are human just like the rest of us—they dread delivering bad news, so they delay it until the last possible moment. This is exactly the wrong thing to do. Get bad news, pain, discomfort, long waits in line, and other unpleasant things out of the way as soon as possible so they don't dominate the customer's recollection of the entire experience.

Principle 3

Segment the Pleasure, Combine the Pain

As we noted earlier, experiences seem longer when they are broken into segments. In addition, people have an asymmetric reaction to losses and gains. Compare winning \$10 in one gamble with winning \$5 twice. Most of us would prefer to win twice. What about losing \$10 in one game as compared with losing \$5 in each of two gambles? Here, most people prefer only one loss. That's why companies should break pleasant experiences into multiple stages and combine unpleasant ones into a single stage.

Not many businesses have grasped this notion. Health care facilities, for example, typically make patients wait at multiple points before they see the physician, but doing so makes the overall wait appear even longer. Clinics would do better to let patients spend more time in the waiting room so they don't have to endure a second, third, or fourth wait in the examining rooms.

Phone help-line menus are frustrating in a similar way. To reach the department that can resolve a problem, a customer must listen to instructions and press (or voice) a response. It often takes four or five such steps to get to the right place. Even if the actual time required to run through, say, four menu queries is less than to run through two, people recall four as taking longer. Service companies would do well to cut the number of steps it takes to reach the final destination, thereby reducing the perceived pain of waiting.

The best trade shows have grasped both halves of this principle. They combine as many of the boring paperwork steps as possible. The Internet World trade show, for example, lets attendees preregister over the Internet. When they arrive, they simply pick up a badge that's been programmed with personal data. The badges allow them to get information at any booth—attendees just swipe them through a reading device, thus avoiding an endless exchange of business cards and sign-in sheets. The things that attendees enjoy and come to see, such as product demos, are plentiful, and they're spread throughout the conference.

Disney's theme parks also understand both halves of the principle. They do a great job of distracting customers who are waiting in line, thus lessening their discomfort. And they make the rides really short, as well. That's done primarily so that more people can get on them, but this efficiency has the added benefit of segmenting the pleasure, which in turn creates the perception of a longer and richer day at the theme park. From the customer's point of view, two 90-second rides last longer than one three-minute ride.

Principle 4

Build Commitment Through Choice

A fascinating study found that blood donors perceived significantly less discomfort when they were allowed to select the arm from which the blood would be drawn.¹ The lesson is clear: people are happier and more comfortable when they believe they have some control over a process, particularly an uncomfortable one. Often the control handed over is largely symbolic (as in the choice of arm). In other cases, it's very real: the medical profession has long recognized the value of allowing the patient to make an informed choice about alternative treatments for cancer and heart disease. These are extremely important, high-stakes decisions, and great value is gained by including the patient in the decision. He or she feels less helpless, less hopeless, and more committed to making the process work.

Many companies have learned to apply this principle in less life-threatening situations. Several airlines, for example, let passengers choose when they want to have their meal served during long flights. Most hotels give customers a choice of using an alarm clock or receiving a wake-up call. And some banks have moved away from snake line configurations and back to individual lines so that customers can work with their favorite teller.

As one Midwestern company learned, this principle can both save money and make clients happy. Customers were complaining to the Xerox machine-servicing company that repairs didn't happen quickly enough. At first, the company considered adding more repair personnel, but upon reflection, it decided to give customers more choice over the schedule. It let them determine the urgency of the problem—service people would arrive faster for a critical failure than for a less urgent one. As expected, this improved customer satisfaction, but what surprised the company was that fewer repair people were needed. The change also reduced the turnover of customer service reps because there were fewer scheduling conflicts with the customers. Conventional wisdom would say that allowing customers to pick the time would force the company to hire more staff. Here, however, as is often the case, customers actually wanted choice more than they wanted an instantaneous response.

Principle 5 Give People Rituals, and Stick to Them

Most service-encounter designers don't realize just how ritualistic people are. They find comfort, order, and meaning in repetitive, familiar activities. Rituals are particularly important in longer-term, professional-service encounters: they're used to mark key moments in the relationship, establish professional credentials, create a feeling of inclusion, flatter customers, set expectations, and get feedback. Common rituals include glowing introductions of staff at the start of an engagement, kickoff dinners, elegant PowerPoint presentations, final celebrations, and formal presentations to the CEO (even though he or she may not have an interest in the project). Many rituals are so small in scale that they're hard to name. Nonetheless, they play an important part in customers' perceptions of the experience. When McKinsey consultants listen to clients, for example, they pepper pauses in the conversation with a characteristic, noncommittal "uh-huh, uh-huh" that somebody once labeled the "McKinsey grunt." Sounds silly, but clients notice when it's missing.

Behavioral researchers have observed that these rituals provide an implicit standard for evaluating service encounters. Deviation from them is often cited as the cause of a failure—particularly in professional services, where customers have difficulty evaluating precise causes and effects. Check in with customers after something's gone badly with a service engagement, and you'll find that this is quite true. "If Henry had covered the ten-step model on the new benefits system like Susan did for the old one, it wouldn't have flopped." (The new system didn't require the ten-step ritual; it failed for a constellation of other reasons.) Or, "The consultant wearing the string tie was off in his forecast by 10%." (The dress code violation had nothing to do with the consultant's technical skills.)

It's easy to laugh at those examples, and more generally to dismiss people's tendency to focus on deviations from norms and rituals when they're trying to explain a failure. But make no mistake, behavioral science clearly shows how critical rituals are in long-term relationships. Not getting the weekly call from the consultant on a project, not copying the CEO on a progress report, not returning phone calls immediately—any of these lapses can be blamed after the fact for a failure. They can also, and even more ominously, shift a customer's perceptions about the quality of the service, the service providers, and the company they represent.


The Right Remedy

How do you make up for a service-encounter error? Research on what customers perceive as a fair remedy suggests that the answer depends on whether it is an outcome error or a process error. A botched task calls for material compensation, while poor treatment from a server calls for an apology. Reversing these recovery actions is unlikely to be effective.

Imagine being a copy store manager faced with two complaining customers. One says that the job was done right but the clerk was surly. The other says that the clerk was pleasant but when he got home, he realized that his report was missing two pages, and he had to take it to a competitor near his house to get the job done right. What should you do? In the case of the rude clerk, don't give the customer some tangible compensation, such as a coupon for his next visit. All the customer really wants is a sincere apology from the clerk and the manager. In the case of the botched job, you can apologize all over the place, but that won't satisfy the customer. He wants the job done right, and he wants some compensation for his inconvenience. Thus, while apologies are appropriate in both situations, behavioral research clearly indicates that process-based remedies should be applied to process-based problems and outcome-based remedies should be applied to outcome-based problems.

Ultimately, only one thing really matters in a service encounter—the customer's perceptions of what occurred. Executives who design and oversee service encounters need to focus far more of their attention on the underlying factors affecting those perceptions. We believe that service encounters can be engineered to enhance the customer's experience during the process and his or her recollection of the process after it is completed.

We've used science to explore those factors, but you'll need to use your imagination to bring them alive. Put yourself in your customers' shoes and imagine their journey. Visualize every moment they spend with you and your employees. Which of their encounters should be lengthened? Which should be shortened? Where in a process are distractions most effective? Where should you offer choice to the customer? Which process rituals should not be violated? What are the last images of your service that customers take away, and how can you enhance them?

Behavioral science, applied with equal doses of empathy and imagination, can improve service delivery. More important, it can change the impressions that your customers remember, refer back to, and pass on to future customers. 

1. R.T. Mills and D.S. Krantz, "Information, Choice, and Reactions to Stress: A Field Experiment in a Blood Bank with Laboratory Analogue," *Journal of Personality and Social Psychology*, 1979.

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