

The Psychology of Waiting Lines

By David H. Maister

Introduction

In one of a series of memorable advertisements for which it has become justly famous, Federal Express (the overnight package delivery service) noted that: "Waiting is frustrating, demoralizing, agonizing, aggravating, annoying, time consuming and incredibly expensive." (1)

The truth of this assertion cannot be denied: there can be few consumers of services in a modern society who have not felt, at one time or another, each of the emotions identified by Federal Express' copywriters. What is more, each of us who can recall such experiences can also attest to the fact that the waiting-line experience in a service facility significantly affects our overall perceptions of the quality of service provided.

Once we are being served, our transaction with the service organization may be efficient, courteous and complete: but the bitter taste of how long it took to get attention pollutes the overall judgments that we make about the quality of service

The mathematical theory of waiting lines (or queues) has received a great deal of attention from academic researchers and their results and insights have been successfully applied in a variety of settings. (2) However, most of this work is concerned with the objective reality of

various 'queue management' techniques: for example, what the effects are upon average waiting times of adding servers, altering 'queue discipline' (the order in which customers are served), speeding up serving times, and so on. What has been relatively neglected, however, is much substantive discussion of the experience of waiting.

As Levitt reminds us, "Products are consumed, services are experienced." Accordingly, if managers are to concern themselves with how long their customers or clients wait in line for service (as, indeed, they should), then they must pay attention not only to the readily-measurable, objective, reality of waiting times, but also how those waits are experienced. It is a common experience that a two minute wait can feel like nothing at all, or can feel like 'forever'. We must learn to influence how the customer feels about a given length of waiting time.

In this paper, I shall discuss the psychology of waiting lines, examining how waits are experienced and shall attempt to offer specific managerial advice to service organizations about how to improve this aspect of their service encounters. down in separate components, so that practicing managers can begin to think about the available tools they can use to influence the customer's waiting experience.

I also hope to identify testable propositions offering the opportunity for future research. The First and Second Laws of Service. Before we discuss the laws of waiting, it is necessary to consider two general propositions about service encounters and how these are experienced.

The first of these is what I have come to call "The First Law of Science is simple, but powerful, and can be stated as a straightforward formula:

$$S = P - E.$$

In this formulation, 'S' stands for satisfaction, 'P' for perception and 'E' for expectation. If you expect a certain level of service, and perceive the service reviewed to be higher, you are a satisfied client. If you perceive the same level as before, but expected higher, you are disappointed and, consequently, a dissatisfied client.

The point, of course, is that both the perception and the expectation are psychological phenomena. They are not the reality. In a benevolent world, both the perception and the expectation will have some connection to reality, but they are not reality. Accordingly, all service managers must pay attention to three things: what was actually done to or for the client, what was perceived by the client, and what the client expected. Fortunately, all three can be managed.

Sasser (et al) provide good examples of both managing the perception and the expectation of waiting times. For the former, they offer the example of 'the well-known hotel group that received complaints from guests about excessive waiting times for elevators. After an analysis of how elevator service might be improved, it was suggested that mirrors be installed near where guests

waited for elevators. The natural tendency of people to check their personal appearance substantially reduced complaints, although the actual wait for the elevators was unchanged. (5)

As an illustration of how expectations can be explicitly managed, they note that "some restaurants follow the practice of promising guests a waiting time in excess of the 'expected time'. If people are willing to agree to wait this length of time, they are quite pleased to be seated earlier, thus starting the meal with a more positive feeling. (6)

This last example deserves further exploration. When I have discussed this anecdote with a variety of serving personnel, they always reaffirm its wisdom. As one waiter pointed out to me: "If they sit down in a good mood, it's easy to keep them happy. If they sit down disgruntled, it's almost impossible to turn them around. They're looking to find fault, to criticize."

As a result of these conversations, I offer my 'Second Law of Service':

It's hard to plan catch-up ball.

The corollary to this law is the proposition that there is a halo-effect created by the early stages of any service encounter, and that if money, time and attention is to be spent in improving the perceived quality of service, then the largest payback may well occur in these early stages.

Having established the importance of the interplay between perceptions and expectations, we shall turn to an examination of the various tools available to managers in influencing these. In each of the sections that follow, the title of the section should be

considered a proposition concerning the psychology of waiting.

We begin with one of the most familiar:

Occupied Time Feels Shorter Than Unoccupied Time.

As William James, the noted philosopher observed: "Boredom results from being attentive to the passage of time itself. (7) A more colloquial version might be 'A watched pot never boils'. The truth of this proposition has been discovered by many service organizations. In various restaurants, it is common practice to hand out menus for customers to peruse while waiting in line. Apart from shortening the perception of time, this practice has the added benefit of shortening the service time, since customers will be ready to order once they are seated, and will not tie up table space making up their minds).

A similar tactic is to turn the waiting area into a bar, which also adds to revenue as well as occupying time. Use can be made of poster, reading material (or even shifting lights, rolling balls and other 'adult toys') to distract the waiter's attention away from the passage of time. 'Theme' restaurants (such as Victoria Station) which provide interesting memorabilia to examine also are applying the lesson of occupying waits as part of the service.

In some situations, such as telephone waits, it is difficult to "fill up" time in a constructive way. The familiar 'Muzak' played by some organizations when their telephone-answering agents are busy is, to many people, an added annoyance rather than a benefit. In large part, this is because the activity (listening to music) is totally unrelated to the service activity to come (whereas, the use of menus and bars cited above successfully integrated

the waiting experience into the total service experience).

This suggests that the activity provided to 'fill time' should (a) offer benefit in and of itself, and (b) be related, in some way, to the following service encounter.

The best example of this I ever encountered in relation to telephone waits was the story of the sports team that, when lines were occupied, played highlights of the previous week's game. In one memorable incident, a caller was transferred from the queue to the receptionist, whereupon he screamed "Put me back, (so-and-so) is just about to score!"

It should also be noted, however, that there can be circumstances where a service may choose to fill time with an unrelated activity. In certain medical or dental waiting rooms, there appears to be a conscious attempt to distract the patient's attention from the upcoming activity, perhaps on the grounds that to remind the patient of what is about to occur might heighten fears and hence make the wait more uncomfortable.

The wisdom of this I cannot attest to (I have read too many National Geographic magazines). Even in this context, it is possible to provide service-related distractions. Many medical clinics provide weighing machines and eye charts, in the waiting room: I have even seen patients merrily occupied with self-testing thermometers, breath-strength equipment and the like.

People Want to Get Started.

One of the other virtues of handing out menus, providing a drinks bar and other methods of service-related time-fillers is that they convey the sense the 'service has started: we know that you are here'. I would hypothesize that people waiting to

make their first human contact with the service organization are much more impatient than those who have 'begun': in other words, preprocess waits are perceived as longer than in-process waits.

Again, I appeal to common experience to reflect the fact that one's 'anxiety' level is much higher while waiting to be served than it is while being served, even though the latter wait may be longer. There is a fear of 'being forgotten'. (How many times has the reader gone back to a maitre d' to check that his or her name is still on the list?).

Many restaurant owners instruct their service staff to pass by the table as soon as the customers are seated to say "I'll be with you as soon as I can, after I've looked after that table over there". In essence, the signal is being sent: 'We have acknowledged your presence'.

One walk-in medical clinic that I studied decided to introduce a triage system, whereby all patients were first met by a nurse who recorded the patient's name and symptoms and decided whether or not the patient could be treated by a registered nurse practitioner or should be seen by a doctor. Even though the addition of this step in the process had no impact on the time it took to see a medical service provider, surveys showed that patients were pleased with 'reduced waiting times'. The point, of course, was that they felt they had been 'entered into' the system.

Anxiety Makes Waits Seem Longer

A large part of the concern that we feel to 'get started' is due as noted above, to anxiety. In the cases cited, the anxiety was about whether or not one had been forgotten. Anxiety can, however, come from other sources. Nearly everyone has

had the experience of choosing a line at the supermarket or airport, and stood there worrying that he had, indeed, chosen the wrong line. As one stands there trying to decide whether to move, the anxiety level increases and the wait becomes intolerable. This situation is covered by what is known as Erma Bombeck's Law:

"The other line always moves faster".

Is there anyone who has not had the experience of choosing a line at the supermarket or airport, and stood there worrying that we had, indeed, chosen the wrong line? On a recent (open-seating) Eastern Airlines shuttle flight, my fellow passengers formed an agitated queue at the boarding gate long before the flight was due to depart, leading the attendant to announce: "Don't worry, folks, the plane's a big one; you'll all get on."

The change in atmosphere in the waiting lounge was remarkable. Similar effort to deal with customer anxiety can be seen when airlines make on-board announcements that connecting flights are being held for a delayed flight, when movie theater managers walk down the line reassuring patrons they will get in, or when customer service agents in airport lobbies reassure waiting patrons that they are indeed waiting in the correct line and have sufficient time to catch their flight.

One of the poorest examples I know of managing anxiety is when I am on standby for a flight, and the agent takes my ticket. Now I am anxious not only about whether I will get on the flight, but also about whether I will get my ticket back. I have been asked to give up control of the situation. At least if I had my ticket I could change my mind and go to another airline. The prescription for managers resulting from this

discussion is: ask yourself what customers might be worrying about (rationally or irrationally), and find ways to remove the worry.

Uncertain Waits Are Longer than Known, Finite Waits

The most profound source of anxiety in waiting is how long the wait will be. For example, if a patient in a waiting room is told that the doctor will be delayed thirty minutes, he experiences an initial annoyance but then relaxes into an acceptance of the inevitability of the wait. However, if the patient is told the doctor will be free soon, he spends the whole time in a state of nervous anticipation, unable to settle down, afraid to depart and come back. The patient's expectations are being managed poorly. Likewise, the pilot who repeatedly announces "only a few more minutes" adds insult to injury when the wait goes on and on. Not only are the customers being forced to wait, but they are not being dealt with honestly.

A good example of the role of uncertainty in the waiting experience is provided by the "appointment syndrome." Clients who arrive early for an appointment will sit contentedly until the scheduled time, even if this is a significant amount of time in an absolute sense (say, thirty minutes). However, once the appointment time is passed, even a short wait of, say, ten minutes, grows increasingly annoying. The wait until the appointed time is finite; waiting beyond the point has no knowable limit.

Appointment systems are, in practice, troublesome queue-management tools. They suffer from the problem that some customers may make appointments without showing up (a problem endemic to airlines, hotels, dentists, and hair cutters) and also from the fact that it is

often difficult to decide how far apart to schedule appointments. If they are too far apart, the server is left idle waiting for the next appointment. If they are too close together, appointments begin to run behind and, since they cumulate, tend to make the server further and further behind.

This is a particularly acute problem because a customer with an appointment has been given a specific expectation about waiting times, and a failure to deliver on this promise makes the wait seem longer than if no appointment had been made. This does not mean that appointment systems should never be used. They are, after all, a way of giving the customer a finite expectation. It should be recognized, however, that an appointment defines an expectation that must be met.

Unexplained Waits Are Longer than Explained Waits

On a cold and snowy morning, when I telephone for a taxi, I begin with the expectation that my wait will be longer than on a clear, summer day. Accordingly, I wait with a great deal more patience because I understand the causes for the delay. Similarly, if a doctor's receptionist informs me that an emergency has taken place, I can wait with greater equanimity that if I do not know what is going on. Airline pilots understand this principle well; on-board announcements are filled with references to tardy baggage handlers, fog over landing strips, safety checks, and air-traffic controllers' clearance instructions. The explanation given may or may not exculpate the service provider, but it is better than no explanation at all.

Most serving personnel are repeatedly asked about the circumstances in waiting situations. The lack of an explanation is

one of the prime factors adding to a customer's uncertainty about the length of the wait. However, knowing the length of the wait is not the only reason a customer wants an explanation. As the Federal Express advertisement points out, waiting is also demoralizing. Waiting in ignorance creates a feeling of powerlessness, which frequently results in visible irritation and rudeness on the part of customers as they harass serving personnel in an attempt to reclaim their status as paying clients. In turn, this behavior makes it difficult for the serving personnel to maintain their equanimity. For example, on a significantly delayed flight, one cabin attendant was forced to announce to the passengers: "Please pay us the courtesy of being polite to us so that we can reciprocate in kind."

Naturally, justifiable explanations will tend to soothe the waiting customer more than unjustifiable explanations. A subtle illustration of this is provided by the practice of many fast food chains which instruct serving personnel to take their rest breaks out of sight of waiting customers. The sight of what seems to be available serving personnel sitting idle while customers wait, is a source of irritation.

Even if such personnel are, in fact, occupied (for example, a bank teller who is not serving customers but catching up on paperwork), the sight of serving personnel not actually serving customers is "unexplained." In the customers' eyes, he or she is waiting longer than necessary. The explanation that the "idle" personnel are taking a break or performing other tasks is frequently less than acceptable.

Unfair Waits Are Longer than Equitable Waits

As Sasser, Olsen, and Wycoff (1979) note, one of the most frequent irritants mentioned by customers at restaurants is the prior seating of those who have arrived later. They observe: "The feeling that somebody has successfully 'cut in front' of you causes even the most patient customer to become furious. Great care to be equitable is vital" (1979, 89)

In many waiting situations, there is no visible order to the waiting line. In situations such as waiting for a subway train, the level of anxiety demonstrated is high, and the group waiting is less a queue than a mob. Instead of being able to relax, each individual remains in a state of nervousness about whether their priority in the line is being preserved. As already noted, agitated waits seem longer than relaxed waits. It is for this reason that many service facilities have a system of taking a number, whereby each customer is issued a number and served in strict numerical order. In some facilities, the number currently being served is prominently displayed so that customers can estimate the expected waiting times.

Such systems can work well in queuing situations where "first in, first out" (FIFO) is the appropriate rule for queue discipline. However, in many situations customers may be ranked in order of importance, and priorities allocated that way. A good example is a walk-in medical facility which will frequently break the FIFO rule to handle emergency cases. Also familiar is the example of the restaurant that has a finite supply of two-person, four-person, and large tables, and seats customers by matching the size of the party to the size of the table. A

final example is the use of express-checkout lanes in supermarkets, whereby customers with only a few items are dealt with a special server.

All of these cases represent departures from the FIFO system. In some, the priority rules are accepted by the customers as equitable and observed-for example, the supermarket express checkout. In other illustrations, such as the restaurant with varying sizes of tables, the priority rule that seats customers by the size of party is less accepted by the customers, and frequently resented. The rule may serve the restaurant, but the customer has a harder time seeing the equity benefit.

Similarly, special service facilities for important customers may or may not be accepted as equitable. For this reason, many service facilities physically separate premium servers (for example, first-class airline check-in counters) from the sight of regular customers so that the latter will not resent the special service rendered.

A slightly different example of the equity problem in queue management is provided by the serving person who is responsible not only for dealing with customers present in the serving facility, but also for answering the telephone.

How many of us have not had the experience of waiting while a receptionist answers the telephones, and consequently felt a resentment that some distant customer was receiving a higher priority than we who have made the effort to come to the service facility? The example can be extended to those people who answer their telephone while you are in their office. By answering the phone, they are giving you a lesser priority than the random caller.

The main point to be stressed here is that the customer's sense of equity is not always obvious, and needs to be explicitly managed. Whatever priority rules apply, the service provider must make vigorous efforts to ensure that these rules match with the customer's sense of equity, either by adjusting the rules or by actively convincing the client that the rules are indeed appropriate.

The More Valuable the Service, the Longer the Customer Will Wait

The example of the supermarket express-checkout counter reminds us that our tolerance for waiting depends upon the perceived value of that for which we wait. Special checkout counters were originally provided because customers with only a few items felt resentful at having to wait a long time for what was seen as a simple transaction. Customers with a full cart of groceries were much more inclined to tolerate lines.

Airlines, too, have discovered this principle and provided separate lines for those with simple transactions (such as seat selection), medium-difficulty transactions (baggage check-in), and complex transactions (ticket purchase or modification). Specialization by task does not necessarily reduce the aggregate amount of waiting in the system; however, it serves well to allocate the waiting among the customer base.

That perceived value affects tolerance or waits can be demonstrated by our common experience in restaurants—we will accept a much longer waiting time at a haute cuisine facility than at a "greasy spoon." In universities, there is an old rule of thumb that if the teacher is delayed, "You wait ten minutes for an assistant professor, fifteen minutes for an

associate professor, and twenty minutes for a full professor." This illustrates well the principle that tolerance for waits depends upon perceived value of service—perhaps with the emphasis on the perception.

It follows from this principle that waiting for something of little value can be intolerable. This is amply illustrated by the eagerness with which airline passengers leap to their seats when the airplane reaches the gate, even though they know that it will take time to unload all the passengers ahead of them, and that they may well have to wait for their baggage to arrive at the claim area. The same passenger who sat patiently for some hours during the flight suddenly exhibits an intolerance for an extra minute or two to disembark, and a fury at an extra few minutes for delayed baggage.

The point is that the service (the flight) is over, and waiting to get out when there is no more value to be received is aggravating. A similar syndrome is exhibited at hotel checkout counters. Just as preprocess waits are felt to be longer than in-process waits of the same time duration, so are post process waits; these, in fact, feel longest of all.

Solo Waits Feel Longer than Group Waits

One of the remarkable syndromes to observe in waiting lines is to see individuals sitting or standing next to each other without talking or otherwise interacting until an announcement of a delay is made. Then the individuals suddenly turn to each other to express their exasperation, wonder collectively what is happening, and console each other. What this illustrates is that there is some form of comfort in group waiting rather than waiting alone.

This syndrome is evidently in effect in amusement parks such as Disneyland, or in some waiting lines to buy concert tickets when a sense of group community develops and the line turns into almost a service encounter in its own right; the waiting is part of the fun and part of the service. Whatever service organizations can do to promote the sense of group waiting rather than isolating each individual, will tend to increase the tolerance for waiting time

Conclusion

The propositions presented here are by no means meant to be an exhaustive list of all the psychological considerations involved in managing customers' acceptance of waiting time. Not discussed, for example, is the importance of explicit apologies and apologetic tones in preserving the customer's sense of valued-client status.

Similarly unmentioned are cultural and class difference in tolerance for waiting. It is said of the English, for example, that if they see a line they will join it. I hope, however, that the managerial reader will have gained a greater appreciation both for the psychological complexity of queues, and for the fact that the psychological experience of waiting can be managed.

The propositions given here can be researched not only by academics for their general applicability, but also by managers for application in specific service situations. The main point of this chapter is that the waiting experience is context specific. By learning to research and understand the psychological context of their own waiting lines, managers can have a significant impact upon their customers' satisfaction with the service encounter.

Notes

1. Fortune, 28 July 1980, p. 10
2. A notable exception is the brief discussion given in Sasser, Olsen, and Wyckoff (1979). A good summary of the work of psychologists in this area is provided by Doob (1960).

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This article is from *THE SERVICE ENCOUNTER* edited by John a Czepiel, Michael R. Solomon and Carol Suprenant, © 1985 by D.C. Heath and Company, Lexington Books.



David Maister is the author of *Managing the Professional Service Firm* (1993), *True Professionalism* (1997), *The Trusted Advisor* (2000) (coauthor), *Practice What You Preach* (2001) and *First Among Equals* (2002) (coauthor.)

Prior to launching his (solo but global) consulting practice in 1985, he served as a professor at the Harvard Business School.

TEL: 1-617-262-5968
E-MAIL: david@davidmaister.com
WEBSITE: www.davidmaister.com

You can automatically receive David's future articles via e-mail (at no cost) by registering on his web site (www.davidmaister.com).