# DELAYS IN SERVICE ENCOUNTERS AS SOURCES OF CUSTOMER DISSATISFACTION

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# INTRODUCTION

Consumer satisfaction is often viewed as a post-purchase process and complaining behavior as post-purchase behavior. This view may be largely appropriate for consumer goods; services, however, are typically produced, delivered and consumed during a single encounter between a customer and a service provider. Consumer satisfaction, dissatisfaction, and complaining behavior being directly related to the actual service experience, it is crucial to identify all possible interferences that may happen during such an encounter.

One interference that is frequently a source of great discomfort is delays. Service providers are very concerned about the impact of delays on their customers' dissatisfaction and complaining behavior. For instance, many service firms have developed sophisticated queuing systems to optimize consumers' average waiting time. Such systems are based on queuing theories which assume that the average waiting time is the only factor affecting consumers' reactions to delays. This assumption seems unrealistic and may result in suboptimal procedures and technologies for managing delays. Indeed, recent research has shown that delays of the same length of time differentially affect consumers depending upon psychological, social and situational factors. For instance, affective reactions have been shown to affect consumers' evaluations of waiting time in transportation services (Barnett and Saponaro 1985.) Moreover, effects of social norms on consumers' reactions to waiting lines have been demonstrated (Milgram et al 1986) and, consumer responses have been shown to be affected by the temporal phases of a service in which a delay occurs (Dubé-Rioux, Schmitt and Leclerc 1988). Also, consumers' reactions to delays vary as a function of consumers' causal attributions (Clemmer and Schneider 1989).

To minimize the negative impact of undesired delays on consumer satisfaction, it is important to understand the conditions under which customers are most sensitive to delays. The purpose of this paper is to investigate the effect of different sources of delay and position in a waiting line on dissatisfaction and complaining behavior. We investigated three sources of delay: (1) delays caused by another customer who intrudes into a waiting line, (2) delays due to a customer who delays the process without any apparent reason, and (3) delays caused by a service provider who interrupts the service unexpectedly. These sources of delays, being likely to vary on perceived responsibility of the firm, are expected to produce different levels of customers' dissatisfaction. With respect to customers' position in the waiting line, we predicted that the closest a customer would be to the service point, the more negatively he or she would react to the delay.

# OVERVIEW OF THE EXPERIMENTS

Two experiments were conducted to investigate the effect of sources of delay and position in a waiting line.

Both studies were conducted as mental simulations; subjects were presented with scenarios describing delays that frequently occur while waiting in a one-counter service line. In study 1, subjects imagined that the delay was induced by another customer. Specifically, another customer either intruded into the front of a waiting line or, without any apparent reason, spent an unusually long time at the service counter. In addition, subjects were asked to imagine themselves at different waiting positions (close or far). The design of study 2 was similar to study 1. The delay was either caused by an intruder or by a service provider. Moreover, study 2 disentangled a confound in the variable "customer waiting position" by manipulating independently closeness to the goal (i.e., closeness to the service counter) and closeness to the delay-causing event.

### STUDY 1

#### Method

One hundred and ten subjects participated in the first study. Subjects were asked to read four scenarios describing real-life waiting situations that they may encounter while waiting in line for bus tickets. The order of presentation of the scenarios was counterbalanced across subjects.

For each scenario, subjects read the following introductory statement: "You have been waiting in a line for bus tickets for approximately ten minutes. There are ten people waiting, and it takes about three minutes to serve a customer." Next, subjects were presented with Next, subjects were presented with four different outcomes of the following events, forming a 2(customer's waiting position) x2(source of delay) within-subjects design. In the "close" waiting position, subjects read that they were the next person to be served; in the "far" waiting position, subjects read that there were still four customers waiting in front of them. In the "intruder" condition, the source of delay was a person who suddenly appeared and, without apparent reason, cut in line right in front of the next person to be served; in the "customer" condition, the delay was caused by another customer who delayed the process without any apparent reason and had already spent twice the amount of time that it normally took to serve a customer. The objective length of each delay and therefore the cost associated with the waiting was identical in all four experimental conditions.

The dependent variables were two nine-point scales on which subjects indicated the degree of their dissatisfaction ("How upset do you think you would be in this situation?" 1=not at all upset, 9=very upset) and their likelihood of taking action ("How likely is it that you would say or do something in this situation?" 1=not at all likely, 9=very likely).

#### Results

Did customers' waiting position and the source of the delay influence their reactions? Table 1 shows the mean dissatisfaction and action ratings of the different experimental conditions. Two 2x2 ANOVAs with

Table 1
Mean Dissatisfaction and Action
Ratings as a Function of Source of
Delay and Waiting Position (n = 110).

	Source of delay	
Waiting position	Intruder	Customer
	Dissatisfaction	
Close Far	7.98 7.25	6.64 6.55
	Action	
Close Far	7.82 5.80	3.56 4.03

Note. Ratings were provided on nine-point scales.

repeated measures on both factors were conducted on the two dependent variables. The analyses revealed one significant effect on the dissatisfaction measure, a main effect of source of delay (F[1,105] = 41.09, p < .0001), and on the action measure, a significant main effect of source of delay (F[1,105] = 188.75, p < .0001) and a significant interaction effect(F[1,105] = 55.50, p < .0001). As Table 1 shows, subjects reported that they would be more upset and be more likely to take action if they had to face a delay caused by an intruder (M = 7.62) on the dissatisfaction measure and M = 6.81 on the action measure) than by a customer who delays the process (M = 6.60 and M = 3.80). The effect on the action measure, however, has to be qualified by the significant interaction which indicated that subjects' willingness to take action was dependent on their waiting position. The interaction effect was statistically explored with independent and dependent sample t tests, conducted rowwise and columnwise. In the case of the intruder, subjects who waited "close" were more likely to take action than subjects who waited farther away (M = 7.82 vs. M = 5.80;t[106]=7.84, p < .0001); for the customer delay situation, subjects were generally less likely to take action (M= 3.80 vs M=6.81; t[106]= 13.63, p<.0001) and their waiting positions mediate this effect to a smaller degree(M = 3.56 and M = 4.03; t[108] = 2.31, p< .05).

#### Discussion

Study 1 demonstrated that customers are both more annoyed and more likely to complain in words or deeds if they are inconvenienced by an intruder rather than by another customer. Moreover, on the action measure, we found an interesting interaction of customer waiting

position and source of delay. The exact nature of this interaction, however, remains unclear, because of a confound in the operationalization of customer waiting position. With respect to waiting position, "close" and far" can either mean close to or relatively far away from the goal of being served, or it can mean "close" to or relatively far away from the event that happened. That is, in the close condition, the imaginary customer was both close to the service counter and close to the intruder or customer who caused the delay; in the far condition, the customer was both far way from the goal and from the event. Therefore, we do not know which factor--closeness to the goal or closeness to the event--produced the effect. Please note that when a customer responds to a delay in real life, the two factors are always confounded; thus we do not know to what degree each factor contributes to the response. In an experimental situation, however, the two factors can be disentangled by manipulating them independently. This was accomplished in study 2.

In addition, another source of delay, a delay caused by the service provider, was introduced in study 2, and, to demonstrate the applicability of our results to different waiting lines, we asked our student subjects to imagine that they were waiting in line at a campus bank.

#### STUDY 2

#### Method

Thirty-three subjects participated in study 2. The study took the form of a 2(closeness to the goal) x2(closeness to the event) x2(source of delay) design. The first two factors were within-subject variables. "Source of delay" was manipulated as a between-subject variable in order to avoid potential demand characteristics that may have produced the strong effects in study 1. Subjects were randomly assigned to the two different sources of delay.

The content of the scenarios of study 2 was similar to study 1. The delay was either caused by an intruder or by a service provider, an employee who put up a sign informing customers that the service would be interrupted for some time. Closeness to the goal was manipulated by asking subjects to imagine that they either waited close to the counter (three customers waiting in front of them) or relatively far away from the counter (eight customers waiting in front of them). Closeness to the event was operationalized by having the event happen right in front of the customer or in front of another customer who was waiting three positions ahead. Like in study 1, the objective time of delay was identical across experimental conditions, and subjects provided their ratings on the two nine-point dissatisfaction and action scales used previously.

# Results

The means are shown in Table 2. Data were analyzed by two 2x2x2 ANOVAs conducted on the dissatisfaction and the action measure. Like in study 1, the only significant effect on the dissatisfaction measure was "source of delay" (F[1,31] = 30.53, p < .0001). Subjects reported that they would be more upset when an intruder caused the delay than when a service provider did

Table 2
Mean Dissatisfaction and Action Ratings
for a Delay Caused by an Intruder or a
Service Provider as a Function of Closeness
to the Goal and Closeness to the Event.

		Source of delay
Closeness to event	Intruder (n = 16)	Service provider (n = 17)
		Dissatisfaction measure
		Close to the goal
Close Far	7.06 6.31	6.94 5.88
		Far from the goal
Close Far	7.25 6.75	6.58 5.88
		Action measure
		Close to the goal
Close Far	7.50 5.81	4.05 3.29
		Far from the goal
Close Far	7.37 5.94	4.00 3.47

Note. Ratings were provided on nine-point scales.

(M = 6.84 vs. 6.32). The ANOVA conducted on the action measure revealed three significant effects: a main effect of source of delay (F[1,31] = 12.74, p < .01), a main effect of closeness to the event (F[1,31] = 37.44, p < .0001), and a significant interaction of source of delay and closeness to the event (F[1,31] = 6.43, p < .05). Subjects were more likely to take action when an intruder caused the delay than when a service provider did (M = 6.65 vs. M = 3.70), and when they were close to the event rather than farther away (M = 5.73 vs. M = 4.63). Like in study 1, the interaction effect was explored with independent and dependent sample t-tests, conducted rowwise and columnwise. Results indicated that subjects were much more willing to engage in action when they were close rather than far away from the intruder (M = 7.43 vs. M = 5.87; t[15] = 5.17, p < .0001); when a service provider, rather than an intruder, interrupted the service, subjects were generally less willing to engage in action (t[ 31] = 3.05, p < .01 and t[31] = 3.89, p < .001, respectively) and closeness to the event did not mediate the effect as strongly as in the case of the intruder (M = 4.03 vs. M = 3.38, t[16] = 3.16, p < .01).

## GENERAL DISCUSSION

The results of the two studies suggest that intrusion is one of the most aversive events that customers encounter in waiting lines. Customers feel emotionally upset when an intrusion occurs, and they indicated that they would be likely to take action. Delays caused by a service provider or by a customer who unduly demands additional service time, on the other hand, are also source of dissatisfaction but much less so than intrusion. In addition, they are also less likely to induce complaining behavior.

The differential impact of the three sources of delay may be explained by the operation of social norms which are more or less strongly shared and enforced within our culture. The social norm that, out of consideration to others, a customer should not demand unnecessary service time seems to be more of a politeness rule rather than an expectation that is generally enforced and perceived as bordering on the violation of legal rights. The same argument seems to hold true for the norm of providing efficient service to customers. Such a behavioral expectation has more to do with considerations to others and good business practices than with more essential human concerns, such as privacy, fairness, and the invulnerability of the human body--values and rights which are potentially threatened by an intrusion. Following this reasoning, it is quite understandable that intrusion is more severely sanctioned than the violation of social or business etiquette. In both studies, we found an interesting interaction between source of delay and customer waiting position. Study 2 indicated that the effect was due to the interaction of source of delay and closeness to the delay-causing event rather than due to the closeness to the service point. Moreover, closeness to the event was a much more important variable for intrusions than for the other two events that produced delays. When intrusions occur, it does not seem to matter whether a customer waits close or far from the service point; however, it matters greatly whether he or she is far or close to the intrusion. This finding can be interpreted as the operation of a social obligation resulting from the violation of a social norm. The person who is right next to the intruder seems to be obligated to restore the social order by telling the intruder to move to the end of the

One important limitation of our studies is that we did not investigate how consumer dissatisfaction and complaining behavior, expressed here as immediate reaction to waiting, would affect repeated patronage. Also, the methodology used in the two studies may raise concern about their ecological validity. Although the present studies were conducted as mental simulations, we believe nonetheless that subjects' ratings are informative and are based on valid intuitions, because the situations that we investigated occur on a regular basis. Yet, only a replication of our experiments as an observational study or field experiment can settle the issue.

Aside from their theoretical importance for investigating the operation of norms and obligations in the social microcosm of a waiting line, the present studies have both theoretical and practical implications for service providers. Theoretically, our findings suggest that in

addition to caring about the objective length of a delay, customers react differently to delays depending on the context in which a delay occurs and the social and situational factors that produce such delays. Our results thus add another piece to the growing literature on psychological, social and situational determinants of customers' reactions to waiting and delays (Dubé-Rioux et al,1988; Harrison et al, 1987; Larson,1987; Schwartz, 1975). In terms of management of waiting and delays, the results of this research provide insights to service providers on how to design ecological support systems and operational procedures that may prevent or at least reduce the negative impact of delays on customer satisfaction. For example, physical barriers to intrusion (e.g., rails or ropes), specific procedures instructing consumers, multi-function service counters and specialized personnel (e.g., guards or ushers) are devices that service managers may use in such situations. To maximize the positive impact of such devices, however, it is crucial to first understand, as we tried to do in this research, the conditions under which customers are particularly sensitive to delays.

#### REFERENCES

Barnett, Arnold, and Anthony Saporano (1985), "Misapplication Reviews: The Parable of the Red Lines", *Interfaces*, 15:2, 33-39.

Clemmer Elizabeth, and Benjamin Schneider (1989),
"Toward Understanding and Controlling Customer
Dissatisfaction during Peak Demand Times",
forthcoming in *Designing a Winning Strategy*,
Proceeding of the 7th Annual Services Marketing
Conference, American Marketing Association.

Dubé-Rioux, Laurette, Bernd H. Schmitt, and France Leclerc (1989), "Consumers' Reactions to Waiting: When Delays Affect the Perception of Service Quality", forthcoming in Advances in Consumer Research, Vol. 15, Thomas S. Srull (ed.), Ann Arbor, MI: Association for Consumer Research.

Harrisson, Wayne A., So Yong Choi and Nicholas E.
Mills (1987), "The Subjective Experience of Service Delays: a Multidimensional Scaling Analysis", Proceedings of the Division of Consumer Psychology, Linda F. Alwitt, ed. New York: American Psychological Association, 23-27.

Milgram, Stanley, Hilary J. Liberty, Raymond Toledo, and Joyce Wackenhut (1986), "Response to Intrusion into Waiting Lines" *Journal of Personality and Social Psychology*, 51:4, 683-689.

Schwartz, Barry (1975), Queuing and Waiting, Chicago: University of Chicago Press