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CUSTOMER SATISFACTION AS A FUNCTION
OF BANK TELLER FRIENDLINESS

A Thesis Presented

by

CAROLYN SHAW BROWN

Submitted to the Graduate School of the
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Psychology Department

CUSTOMER SATISFACTION AS A FUNCTION

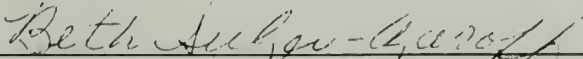
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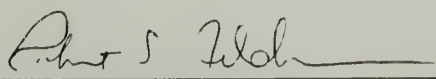
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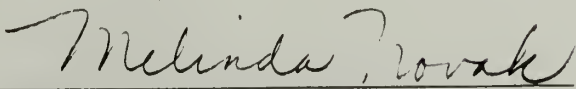
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ABSTRACT

CUSTOMER SATISFACTION AS A FUNCTION
OF BANK TELLER FRIENDLINESS

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CAROLYN SHAW BROWN, B.A., UNIVERSITY OF MASSACHUSETTS

M.S., UNIVERISTY OF MASSACHUSETTS

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The relationship between bank teller service friendliness and customer satisfaction, as well as the effect of feedback on service friendliness, were examined. Subjects were three tellers in a branch of a commercial bank with 30 branches in Central Massachusetts. Tellers' rates of smiling at, greeting and looking at their customers during the first three seconds of the service interaction were obtained by direct observation. Customer satisfaction data were obtained by asking customers to rate their satisfaction with teller service by depositing distinctively colored chips, given to them by their tellers, into a customer survey box located in the bank lobby. All three behaviors increased substantially with feedback. Greeting was found to be significantly correlated with customer satisfaction. A customer response rate of 99% was obtained using the chips method. Suggestions for future research, including replication involving subjects less well acquainted with their customers, are discussed.

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
LIST OF TABLES	vii
LIST OF FIGURES.	viii
 Chapter	
1. INTRODUCTION	1
Goal Based Assessment.	1
- Customer Service/Satisfaction.	2
- Customer Satisfaction Data Collection Methods.	4
- Bank Customer Service	6
Feedback as Behavior Change Agent.	8
Present Study.	9
2. METHOD	11
Subjects and Setting	11
Apparatus and Materials.	12
Dependent Variables.	13
Observation.	14
Observer Training and Reliability.	15
Experimental Design.	16
Procedure.	17
3. RESULTS.	24
Branch W- Overview	24
Branch W- Individual Subjects Analysis.	27
Branch S- Overview	29
Interobserver Agreement.	29
4. DISCUSSION	57
Feedback	57
Relationship Between Service Friendliness and Customer Satisfaction.	59
Effects of Chips on Service Friendliness	63
Utility of Chips as a Customer Satisfaction Data Collection Tool	64
Causes and Implications of Loss of Branch S.	65

Maintenance 66
Summary 67

APPENDICES

A. INFORMED CONSENT 68
B. TELLER BEHAVIOR CHECKLIST. 70
C. FEEDBACK CHART 71
D. CHIP COLLECTION BOX 72
E. SCRIPT FOR FIRST FEEDBACK TO TELLERS 73
F. CONSUMER SATISFACTION SURVEY 74

REFERENCES 76

LIST OF TABLES

1. Tellers' Differential Exposure to Experimental Conditions . . 22
2. Number of Interactions Recorded on Each Day of the Week . . . 23
3. Group and Individual Percentages of Interactions
During Which Smiling, Greeting and Looking At
Customers Were Observed in Each Condition 30
4. Customer Satisfaction Rating for Each Teller During
Each Condition 32
5. Group and Individual Correlation Between Customer
Satisfaction and Target Behaviors 33
6. Target Behavior Means and Standard Deviations for Each
Teller During Each Condition 37
7. Branch S Group Data 56

LIST OF FIGURES

1. Customer Satisfaction Branch W	31
2. Percentage of Interactions During Which Teller W1 Smiled at Customers During Each Experimental Condition	34
3. Percentage of Interactions During Which Teller W2 Smiled at Customers During Each Experimental Condition	35
4. Percentage of Interactions During Which Teller W3 Smiled at Customers During Each Experimental Condition	36
5. Percentage of Interactions During Which Teller W1 Greeted Customers During Each Experimental Condition	38
6. Percentage of Interactions During Which Teller W2 Greeted Customers During Each Experimental Condition	39
7. Percentage of Interactions During Which Teller W3 Greeted Customers During Each Experimental Condition	40
8. Percentage of Interactions During Which Teller W1 Looked at Customers During Each Experimental Condition	41
9. Percentage of Interactions During Which Teller W2 Looked at Customers During Each Experimental Condition	42
10. Percentage of Interactions During Which Teller W3 Looked at Customers During Each Experimental Condition	43
11. Proportion of Customers Responding at Each Satisfaction Level to Teller W1 During Each Condition	44
12. Proportion of Customers Responding at Each Satisfaction Level to Teller W2 During Each Condition	45
13. Proportion of Customers Responding at Each Satisfaction Level to Teller W3 During Each Condition	46
14. Covariance of Teller W1 Greeting and Customer Satisfaction During Each Condition	47
15. Covariance of Teller W2 Greeting and Customer Satisfaction During Each Condition	48
16. Covariance of Teller W3 Greeting and Customer Satisfaction During Each Condition	49
17. Covariance of Teller W1 Smiling and Customer Satisfaction During Each Condition	50

18. Covariance of Teller W2 Smiling and Customer Satisfaction During Each Condition	51
19. Covariance of Teller W3 Smiling and Customer Satisfaction During Each Condition	52
20. Covariance of Teller W1 Looking At Customers and Customer Satisfaction During Each Condition	53
21. Covariance of Teller W2 Looking At Customers and Customer Satisfaction During Each Condition	54
22. Covariance of Teller W3 Looking At Customers and Customer Satisfaction During Each Condition	55

CHAPTER 1

INTRODUCTION

There is some concern in the field of Organizational Behavior Management as to what the proper target for OBM research should be. Frederiksen (1981/1982) reported that a majority of the work done both in business and human service settings had organizational process rather than outcome as the primary target for behavior change. He argued that OBM is an applied field and, as such, processes not functionally tied to significant organizational outcomes are not the most appropriate focus for OBM research. He asserted that focusing on process alone can actually have negative ramifications including the inefficient use of behavior change program resources, and reduction in innovative behavior on the part of employees, among other things.

Goal Based Assessment

Frederiksen's contention regarding process vs outcome was echoed by Dierks and McNalty (1987). The authors expressed their belief that measurable outcome rather than process should be the basis for effective employee incentive systems, citing Dr. William Abernathy's successful incentive system work with Union National Bank as an exemplar of the effective use of these procedures. A Vice President of that bank described the goal selection procedure used in the incentive system for loan officers (Roberts, 1983). In accordance with Frederiksen's (1981/1982) suggestion that analysis should proceed from the accomplishment to the behavior, Roberts explained that the bank first decided on its profit goal, and then created a

loan officer evaluation method and incentive system based on his or her direct contribution to that goal. He explained the rationale for this as follows:

An officer may dress well, make lots of business calls, and present a good image for the community to view, but until the results of these actions are related to specific, objective, profit/growth goals, that officer's evaluation is merely the subjective opinion of another person. (p. 8)

In a behavior change program, it is important to be very clear as to the outcome of interest, and to ascertain the effectiveness of the program in terms of that outcome. An organizational behavior modification program that is not shown to be functionally related to significant organizational goals is of limited value to an individual organization.

Customer Service/Satisfaction

A difficulty in insisting upon bottom line measures is that not all functional areas lend themselves to such direct, quantifiable, readily available evaluation as loan profits or sales volume. Customer service is one of these areas. The teller customer interaction, for instance, is extremely important one for a bank as it represents the most frequent contact the average customer has with a bank. In general, when people can chose whether or not to interact with someone, interactions are apt to be repeated if the initial outcomes are perceived as positive (Thibaut & Kelly, 1959). In other words, customers are more apt to keep coming back if they have a positive interaction with the service personnel. Keeping

existing customers is perhaps more important to service organizations than acquiring new ones. It has been reported that it costs five times as much to attract a new customer as it does to keep a current one (Spechler, 1989; Uller, F., 1989)

Despite the difficulty of establishing the direct, quantifiable link between bottom line measures and customer service, several studies have been conducted in which personnel behaviors assumed to be tied to customer satisfaction have been positively impacted following the implementation of behavior change programs. One of the studies was by Komaki, Blood and Holder (1980). The component of customer service targeted in this study was employee friendliness; the frequency of employees of a fast food restaurant smiling at and talking with customers. Target behaviors were generated and refined by upper level management based on their perceptions of the critical components of friendly service. Although we might assume that increases in the rate of those target behaviors would increase customer satisfaction, data to support the assumption were not collected in this study. Jay Spechler (1989), in making recommendations for development of training programs, discussed the importance of performance-effective standards based on what satisfies the customers rather than what involved departments assume will do so. He cited an American Express credit card replacement procedure as an example. A replacement time standard, affecting many departments, was established based on what American Express personnel thought would satisfy customers. However, after conducting customer surveys and interviews and finding out what

customers themselves said they needed, the replacement procedure had to be completely changed. This tendency is a common pitfall, according to Spechler who said "We develop internal performance standards that seem good to the departments involved, but that don't necessarily satisfy the customer" (Spechler, 1989, p.21).

Customer Satisfaction Data Collection Methods

Gathering customer satisfaction data is not as simple as it might seem. As part of a study designed to improve four specific customer service behaviors (approach, greeting, courtesy, and closing) in a department store, customers were given postage paid customer satisfaction questionnaires with five "yes" or "no" questions (Brown, Malott, Dillon & Keeps, 1980). In exchange for returning them, customers would automatically be entered in a contest to win a \$100 gift certificate. Surprisingly, not one of the 500 questionnaires distributed was returned. In a subsequent attempt to get some direct customer feedback, one subject was asked to interact with 13 customers, exhibiting the target behaviors with some and not with others. Those customers were then asked to fill out a short customer satisfaction questionnaire. Those who were the recipients of the target behavior reported that they were satisfied with the service they had received, while most of the others were not pleased with the service they received. This would seem to show that the target behaviors were positively received by customers. Interestingly, however, the authors reported that their own informal observations during the course of the study indicated that employees were not reinforced by customers when they exhibited the target

behaviors and were occasionally given social punishers by the customers. Clearly, the ambiguity of the evidence doesn't allow definitive conclusions to be drawn. Regardless, since the target behaviors involved approaching shoppers and offering help, there was a sales-like component to the target behaviors that would not necessarily exist in other customer service jobs (e.g. cashier, bank teller, waitperson) and, as such, one would not necessarily expect this finding to generalize across customer service positions.

Although the zero questionnaire response rate experienced by Brown et al. is probably unusual, the difficulty in getting high response rates from questionnaires is not. Schneider and Bowen (1985), for instance, conducted a study that included mailing satisfaction surveys to bank customers. The survey had 31 questions that required respondents to circle their responses on a scale of 1 to 5. Of the 4,400 questionnaires mailed, 968, or 22%, were returned. Similarly, a customer survey was conducted in June of 1987 by the subject bank in the present study. The questionnaire consisted of four yes/no questions pertaining to customer satisfaction, and one open-ended question ("How could we better service your needs?"). The response cards were postage paid. Of the 58,000 questionnaires mailed, 4,486, or 8%, were returned. Based on industry norms for questionnaire response rates, the bank determined that the 8% response rate was sufficient to determine market trends.

If only a small fraction of the customers to whom questionnaires are distributed respond, the question of responder

bias arises. What variables differentiate respondents from nonrespondents? Are those who are extremely satisfied, or extremely dissatisfied more likely to respond? Clearly, if a large percentage of those surveyed respond, the threat to the generalizability of the response to the surveyed population (i.e. the external validity) is minimized.

One way to obtain customer satisfaction data without some of the difficulties of questionnaires is a "shopper" program, where participant observers act like customers and then rate the service they receive along some predetermined dimensions (Dixon, 1989; Brewton, 1989; Rafaeli, 1989). These programs are not necessarily conducted with reliability observers, however, and sometimes enlist as observers peers unknown to the subjects. Experimentally, these practices present some possible bias problems. For example, impartiality may not be possible if various branches within an organization are in competition with each other and an employee from one branch is put in the position of evaluating another branch. Other methods include Visual Imagery Profiling (VIP), which involves asking customers to choose photographs representative of the type of person the customer associates with a particular product or firm (Vatza, E.J., 1989), comment cards to be filled out at the time of consumption, 800 numbers, and computer-assisted phone interviews (Dixon, 1989).

Bank Customer Service

A very recent study designed to improve customer service by bank tellers was conducted by Crowell, Anderson, Abel and Sergio

(1988). Eleven teller behaviors, determined by bank management to be important contributors to good customer service, were measured. The measurement system was quite complex, requiring eight observers, audiovisual equipment, and allocation of space in the teller cage for observers. It was found that the combination of task clarification and performance feedback were effective in improving the selected customer service behaviors.

Although the complexity of the study may limit its practical application, an important finding was the effect of task clarification. The researchers found that task clarification alone, separate from feedback, produced a quick increase in the dependent variables over baseline rates. Once again, formal customer satisfaction data were not obtained. However, even though a functional relationship between the teller behaviors studied and customer satisfaction was not shown, the authors pointed out two observations that may lend support to the importance of the behaviors studied. One was a reported decrease in the number of customer complaints and an increase in complimentary comments made to the branch manager about teller service. Unfortunately, the authors state that no systematic procedures were in place for gathering this information and that it therefore cannot be verified. The other observation was a large increase in the bank's deposits during the study. The design of this study, however, did not allow this possible functional relationship to be analyzed; many other factors, such as new housing, new shopping malls or the closing of another bank branch in the area could account for the deposit

increase. A limitation of this study, in addition to its complexity, is that neither the target behaviors nor the results were functionally tied to a corporate goal.

Feedback as Behavior Change Agent

The Crowell et al. finding, relative to the importance of task clarification as a function of feedback, would seem to support a 1981 review of performance feedback by Prue and Fairbank. They discussed the possibility that the change in employee behavior following feedback is not necessarily due to the reinforcing quality of feedback alone. They suggested that feedback can have an antecedent stimulus function by giving the employee information as to performance requirements.

The term feedback can be a misleading one because it refers to so many different kinds of communications. It can be defined along a number of dimensions and functions, such as group vs individual, public vs private, information vs reinforcement etc. (Duncan & Bruwelheide, 1985-86; Ford, J.E., 1980). Balcazar, Hopkins and Suarez (1985) conducted a major review of feedback literature in an attempt to evaluate the relative effectiveness of various forms of feedback. They determined, among other things, that public and private feedback are approximately equally effective, graphic forms of feedback are superior to other forms, such as written, and that feedback from a supervisor is more effective than self recorded feedback. Their most consistent finding, however, was that feedback must be functionally tied to differential consequences to be effective. Feedback, whether used alone, or in conjunction with

other methods, however, continues to be a popular treatment. In a review of the articles published in the Journal of Organizational Behavior Management, feedback was shown to be the most frequently used treatment (Balcazar, Shupert, Daniels, Mawhinney, & Hopkins, 1989). It has been effectively used to improve the performance of engineers (McCuddy et al., 1984), drug store clerks (Newby et al., 1983), retail store managers (Gaetani et al., 1983) manufacturing production workers (Emmert, 1978), department store clerks (Brown et al., 1980), waitpersons (Komaki et al., 1980) and numerous others.

Present Study

The goal of the proposed study was to implement a feedback system with bank tellers to increase several specific behaviors directed at customer service and to measure the effect of those behaviors on customer satisfaction. Toward that end, a system of customer satisfaction data collection, designed to provide daily response data for each individual teller and reduce responder bias by generating a high response rate, was tested. Specifically, bank tellers' friendliness, defined here as smiling at, greeting, and looking at customers, was targeted. Of course, many other variables impact the customers perception of the interaction; its accuracy, its duration, the length of the waiting line preceding the interaction, etc., however only friendliness was systematically varied in this study. A further goal was to implement a relatively simple intervention that, unlike the Crowell et al. (1988) study, could be utilized by any bank branch without elaborate measurement systems and extra staff. In this study, customer satisfaction and

teller friendliness were measured. Tellers were given both individual and group feedback on both their own friendliness and customer satisfaction. It was hypothesized that the targeted teller behaviors would increase following feedback and that customer satisfaction would be correlated with those behaviors.

CHAPTER 2

METHOD

Subjects and Setting

The study was conducted in two branches (hereafter referred to as Branch S and Branch W) of a \$1.5 billion Central Massachusetts commercial bank with 30 branches. Branch S was located in a community of approximately 12,000; Branch W in a community of 14,000. These branches were selected, in cooperation with the Senior Vice President of Community Banking, for two reasons. They had relatively stable teller staffs and their distances from other branches made teller rotation less likely than in branches in, or closer to, the metropolitan area in which the majority of branches were located.

Branch S had three consecutive teller windows while branch W had two consecutive teller windows and a third separated from the other two. Observations were made only at the consecutive windows. The number of windows manned at any time varied depending upon fluctuating branch needs, such as the number of customers in the branch, and other tasks to be performed. In both branches, the immediate teller service area was distinct from the remainder of the branch in that the floor covering changed from carpeting to tile three feet from the teller windows.

Eight tellers, 4 in each branch, volunteered to participate. The commercial teller in Branch W, however, was physically separated from the others in such a way that unobtrusive observations were not possible, therefore only 3 tellers in Branch W served as subjects.

Subjects in Branch S are referred to as S1, S2, S3 and S4. Branch W subjects are W1, W2, and W3. Subjects S1, S2, W1 and W2 were full-time; S3 and S4 were part-time, working 15.5 and 17.5 hours per week respectively. Teller W3 worked full time at another branch and for 3 hours on 3 out of 4 Saturdays per month in Branch W. Tellers in Branch S ranged in age from 39 to 61 and had from 4 to 24 years teller experience in this branch. Age ranges in Branch W were from 20 to 58 and teller experience was from 9 months to 22 years.

Apparatus and Materials

An informed consent form was needed for each teller (see Appendix A). Additional materials included teller behavior checklists (see Appendix B), 150 poker chips (50 red, 50 white, and 50 blue), and individual and group feedback charts for teller behavior and customer satisfaction data (see Appendix C). Feedback charts were graphs printed on 8.5 by 11 inch paper. Group charts were graphs, as described above, mounted on a 22 by 28 inch piece of poster board. Additionally, a poker chip collection box was used (see Appendix D). This was a wooden box mounted on wooden legs and stood at table height. On top of the box were five slots marked "extremely satisfied", "very satisfied", "satisfied", "somewhat satisfied", and "unsatisfied". Over the box was a sign asking customers to place the token (poker chip) in the slot that best described how satisfied they were with the teller service they had received that day.

Dependent Variables

The two categories of dependent variables measured were 1) service friendliness, specifically incidents of tellers smiling at, greeting and looking at (or orienting towards) customers at the initiation of customer/teller interactions, and 2) customers' satisfaction with teller service.

A smile was recorded as having occurred if the observer noted that the teller smiled at the customer within 3 seconds of both the customer's and the teller's arrival at the teller window. Komaki, Blood, and Holder (1980) defined smiling as having the corners of one's mouth turned up with one's teeth showing, employing this definition after noting that observers sometimes disagreed when recording smiling. Similarly, Rafaeli (1989) defined smiling as a noticeable upturn of the lips. In the present study, the observers obtained high levels of agreement using a more general and perhaps more conservative criterion: "If you were the customer and were tapped on the shoulder immediately after the interaction began and asked whether or not the teller smiled at you, would you say 'yes'?" This definition was based on the presumption that if it was difficult for the observer to determine whether or not the teller had smiled, it was probably equally difficult for the customer to tell. In that case the "smile" probably would not have had a strong effect.

Greeting was defined as the use of a typical opening word or phrase, such as "Hello" or "May I help you". To be counted as a greeting, the opening word or phrase had to be initiated by the

teller, not simply in response to the customer's greeting. If the customer and teller greeted each other simultaneously, it was scored as an instance of greeting.

Looking at the customer involved the teller orienting her face and gaze toward the face of the customer. Eye contact (the customer also looking into the face of the teller) was not required. There was no duration requirement; as long as the teller looked at the customer's face for even a moment, it was recorded as an incident of looking.

The second dependent variable was customer satisfaction with teller service. This was measured by having tellers give a poker chip of a distinct color to customers following each interaction and asking the customers to participate in a survey by putting their chips in the appropriate slot in the customer service box located in the lobby. Each teller had a different color chip so that customer satisfaction data could be determined for each teller.

Observation

The experimenter served as the primary observer. A second observer employed for the purpose of reliability checks was a 16 year old highschool honors student, the son of the experimenter.

During each observational session, the observer was seated in the platform area of the branch facing the tellers. On the Teller Behavior Checklists (appendix B) the observer recorded whether or not the teller(s) being observed smiled at, looked at, and/or greeted each customer served according to the criteria discussed earlier. To be counted as a positive instance, each behavior had to

occur during the first 3 seconds of the interaction, when the customer was within 3 feet of the teller window where the floor covering changed from carpeting to tile.

It was possible to view most, but not all, transactions due to customer's positioning within the lobby. When the experimenter was the sole observer, interactions blocked from view were unrecorded. When both the primary and secondary observers were present, they recorded obstructed interactions as (o) to permit calculations of agreement indices calculations. If two or more transactions were occurring simultaneously, the primary observer hand signaled the secondary observer which transaction to record.

Observer Training and Reliability

Preliminary training of the reliability observer was carried out in a fast food restaurant. Both observers ordered drinks and then observed service personnel as they interacted with customers. Smiling, greeting, and looking at were recorded on data sheets identical to those used in the study. Training consisted of defining terms, observing, comparing and discussing observations, and clarifying definitions. Four training sessions were carried out over two days until reliability for smiling, greeting, and looking at were 91%, 90%, and 100% respectively, with definitions as described as above. The percentage of interobserver agreement, during training and at the bank, was determined by dividing the number of agreements by the sum of agreements plus disagreements and then multiplying the result by 100:

$$[A/(A+D)] 100$$

Observations were made by the secondary observer during 20% of the 51 observation sessions conducted during the study, 6 out of 20 sessions conducted in Branch S, and 4 out of 31 sessions conducted in Branch W. The secondary observer was unaware of the experimental conditions as well as the experimental question.

Experimental Design

The five experimental phases of the study, A1, B1, A2, B2, & C, were defined as follows:

A1 - Baseline one. Observations of tellers doing business as usual were made during which incidents of the target behaviors (smiling, greeting, and looking at) were recorded.

B1 - Chips one. As observation and recording of target behaviors continued, tellers gave a chip to each customer at the end of each transaction and asked that the customer participate in a customer survey by placing the token in the box in the lobby.

A2 - Return to baseline conditions. Observations continued to be recorded with chips no longer being dispensed to customers.

B2 - Return to observation plus chips condition.

C - Feedback. In addition to observations and chips continuing, the experimenter told the tellers what behaviors were being observed and gave them group and individual feedback on both observations of target behaviors and results of the customer satisfaction survey.

The study was terminated in Branch S early in condition B1; data for S1, S2, S3, and S4 are primarily from condition A1. Branch W tellers were differentially exposed to experimental conditions due

to scheduling issues outside of the experimenters control. Table 1 summarizes which tellers experienced which experimental conditions.

Procedure

Subject Recruitment

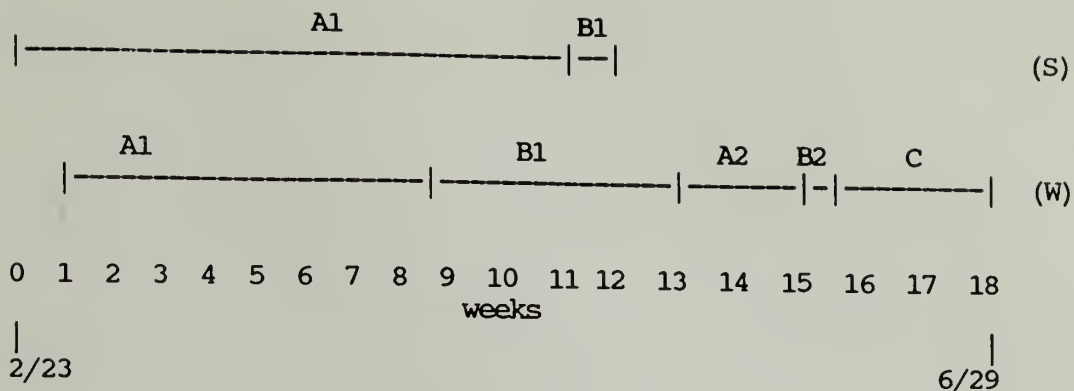
The experimenter explained the purpose and procedures, first to a senior bank official and then to each branch manager individually. All agreed, pending teller approval. One of the managers felt it would be better if she made the initial presentation to her teller staff. For the sake of consistency, the other manager did the same. Managers were instructed to tell the tellers that a graduate student was proposing to do a customer service study in several branches of their bank. The study would take approximately sixteen weeks and would involve being observed during normal working hours. Eventually, chips would be given to customers who would use them to participate in a customer service survey. If they chose to participate, any information concerning any individual teller would be kept confidential between the experimenter and teller; only group information would be known to any bank administrator. Participation would be strictly voluntary, would have no impact on their job evaluation, and they would have the right to withdraw at any time. Managers met with their tellers afterward reporting to the experimenter that they explained the study as instructed and gave each teller a copy of the Informed Consent Form. Both managers reported that the tellers seemed to understand. All agreed to participate and signed Informed Consent forms. On the day of the first observation in each branch, the experimenter/observer met with

the tellers. The voluntary and confidential nature of the study was reiterated and questions were answered.

Scheduling of Sessions

Observation sessions were not scheduled in any systematic way. It was agreed that the observer would come and go randomly, primarily on Tuesdays, Thursdays and Saturdays, as her schedule permitted. Table 2 shows the number of observations of each teller as well as the days of the week on which observations were made for each experimental condition by branch. Often, more than one observation session was conducted on a given day. Sessions were separated by at least 30 minutes.

From beginning to end, the duration of the study in Branch S was approximately 12 weeks; in Branch W approximately 17 weeks. A total of 285 customer/teller interactions were recorded in Branch S: 250 in condition A1 and 35 in condition B1. Interactions in Branch W totaled 595: 125 in condition A1, 155 in condition B1, 90 in condition A2, 20 in condition B2, and 205 in condition C. Following the first week of baseline (A1) in Branch S, Branch W baseline was initiated and continued for seven weeks. While Baseline (A1) continued in Branch S, observations + chips (B1) was introduced in Branch W. Two and a half weeks later, the observations + chips condition (B1) also was introduced in Branch S, however the tellers unwillingness to pass out the chips necessitated termination of the study in that location. An approximate time line is shown below. The shorter line, marked S, represents Branch S. The longer line, marked W, represents Branch W.



Data Collection

During A1 (baseline), the observer(s) entered the branch, sat in lobby chairs facing the teller line, and recorded the target behaviors. The time and length of each observational session varied depending upon both the teller's and observer's schedules. Teller's breaks and allocation of tasks that took them away from their windows were not predictable. At the end of each session, the observer thanked the tellers and left.

During B1 (observation + chips condition), the observer arrived at the branch, gave each teller a plastic container with 50 distinctively colored poker chips, put the customer service box in the lobby, and sat down to record target behaviors as in baseline. At the end of each observation session, the experimenter removed the customer service box from the lobby and collected the remaining poker chips from each teller. In a secluded back room, the observer then counted and recorded on the back of the data sheets the number of chips of each color found in each category (extremely satisfied, very satisfied, etc.). The number of chips remaining in each teller's

container was counted and added to the number of chips of each color found in the customer service box. The total was subtracted from the original 50 to get a customer response rate. The observer then stored the empty customer service box in a back room, thanked the tellers, and left. Chips were dispensed only when the observer was present.

The reversal phase, A2, was identical to A1. Observations of target behaviors were recorded. No chips were dispensed.

Condition B2 (the second observation + chips condition) was identical to the first (B1). Again, chips were dispensed only in the observer's presence.

Feedback

Condition C (observation + chips + feedback) began with the experimenter attending a regularly scheduled staff meeting on 6/15. She explained the purpose of the study to the tellers (see appendix E) and gave them feedback on the observations and customer satisfaction data collected to date. The graphed group data were posted in the lunch room over the coffee machine. Sealed individual data were given to the two participants present. As the teller who worked in Branch W on Saturdays only (W3) was not present, the experimenter held a brief meeting with her in the morning before the branch opened on her next scheduled day, repeated the explanation given to the others, gave her individual graphs and showed her the graphs posted in the lunch room. All feedback graphs were bar graphs.

The initial feedback graphs were replaced on 6/19. Again, sealed individual graphs were given to the tellers present and graphs for the Saturday teller were dispatched via confidential interoffice mail, on

the same day. Before posting the updated graphs, the experimenter hand wrote a note on the groups charts saying "This is super!. Everything is up - smiling up 38%, greeting up 17% and eye contact up 21%. Unbelievable!!". Similar notes were written on the individual graphs. The third graphed feedback was given on 6/27 and the fourth on 6/29. In each case, graphs were shown to tellers prior to that day's observations. The Branch Manager reported to the experimenter that she complimented the staff on their performance and the improvement shown in the graphs on two occasions. The first was informal on 6/27. The second was during a formal staff meeting on the morning of 6/29. Observations and chips continued throughout condition C.

On 7/18, the experimenter asked the tellers in Branch W to complete consumer satisfaction questionnaires (appendix F). They gave their permission to share their individual data (with their names) with bank administrators.

Table 1. Tellers' Differential Exposure to Experimental Conditions

Teller	Experimental Conditions
W1	A1, B1, A2, B2, C
W2	A1, B1, C
W3	A1, B1, A2, C
S1	A1, B1 (terminated study before B1 completed)
S2	A1, B1 (terminated study before B1 completed)
S3	A1, B1 (terminated study before B1 completed)
S4	A1 (terminated employment before B1 began)

Table 2. Number of Interactions Recorded on Each Day of the Week

Date	Subject	Number of Interactions
<u>Branch W</u>		
<u>Condition A</u>		
M	3/20	
T	3/7, 3/29, 4/4	W1 80 interactions
W	3/15	W2 20 interactions
Th	3/2, 3/23, 4/6	W3 25 interactions
F	3/24	total 125
S	3/25, 4/15, 4/24	
<u>Condition B</u>		
M		
T	4/24, 5/2, 5/9	W1 65 interactions
W	6/7	W2 55 interactions
Th	5/4	W3 35 interactions
F		total 155
S	5/6, 5/13	
<u>Condition A2</u>		
M		
T		W1 65 interactions
W	5/31	W2 0 interactions
Th	5/25	W3 25 interactions
F		total 90
S	6/3	
<u>Condition B2</u>		
M		
T		W1 20 interactions
W	6/7	W2 0 interactions
Th		W3 0 interactions
F		total 20
S		
<u>Condition C</u>		
M		
T	6/27	W1 105 interactions
W	6/28	W2 45 interactions
Th	6/29	W3 55 interactions
F	6/16	total 205
S	6/7, 6/24	
<u>Branch S</u>		
<u>Condition A</u>		
M		
T	2/28, 3/29, 4/4, 4/11, 5/2, 5/9	S1 70 interactions
W		S2 75 interactions
Th	2/23, 3/9, 3/23, 4/6	S3 35 interactions
F	2/24, 3/24	S4 70 interactions
S	3/25, 4/8, 4/28	total 250
<u>Condition B1</u>		
M		S1 10 interactions
T	5/16	S2 20 interactions
W		S3 5 interactions
Th		S4 0 (quit 4/22)
F	5/12	total 35
S		

Branch W - OverviewA1 - Baseline

During baseline, 125 teller/customer interactions were recorded. The group mean percentage of smiling at greeting, and looking at customers in the initial seconds of the exchange were 27%, 48%, and 70% respectively. Although the percentages varied across individual tellers, smiling consistently occurred less frequently than either greeting or looking at customers. This relationship continued throughout all phases of the study (see Table 3).

B1 - Chip Dispensing

During this condition, 155 interactions were recorded. When tellers were asked to dispense poker chips to customers for the purpose of customer satisfaction ratings, mean smiling, greeting and looking at percentages were 42%, 77%, and 77% respectively. This represented an increase over baseline of 56%, 60% and 10% respectively. Individual teller responses to this condition varied considerably. Tellers W1 and W3 increased smiling over baseline rates by 53% and 185% respectively, while W2's smiling rate increased by only 8%. Conversely, W1 and W3 both increased orienting by 6% over baseline, while W2 increased orienting by 42%. Only greeting increased substantially for all, increasing by 27%, 258% and 73% for W1, W2, and W3 respectively.

A2 - Reversal

Recordings were made of 90 interactions in this return-to-baseline condition, during which the group means for smiling, greeting and looking at customers decreased by 10%, 19% and 14% respectively (see Table 3). Although the group mean did not return to baseline levels, it is important to note that only two of the three tellers were exposed to the reversal condition (the third teller was not available for observation during that time). Although W1 showed little change, W3 reversed to near baseline levels in both smiling and greeting and to below the baseline level in looking at customers. This change in teller W3 represents 37%, 63% and 33% decreases from condition B1 in smiling, greeting and looking at customers.

B2 - Chips Dispensing

Only teller W1 experienced this reinstatement of chips condition, which resulted in minimal changes as compared to the previous condition (A2). The changes observed during the 20 interactions recorded in this condition were -8% in smiling, +8% in greeting and +8% in looking at customers (see Table 3).

C - Feedback

When observations and chip dispensing were combined with feedback in condition C, smiling increased over baseline by 196% when averaging across tellers (see Table 3). For individual tellers, the increase over baseline ranged from 144% to 310%. Smiling rates in condition C exceeded any other condition by 90%, when averaging over tellers, and by a minimum of 44% and a maximum of 98% for individual

tellers. The mean percentage increase over baseline of greetings in condition C was 83%, ranging in individuals from 64% to 262%. When compared to all previous conditions, the mean greeting percentage was 10% higher during feedback than during any previous condition and ranged from a 1% to a 15% increase in individuals.

Customer Satisfaction

Of the 525 poker chips dispensed to customers, 520 were placed in the customer satisfaction box, representing a 99% response rate. Figure 1 shows the percentage of customers who selected each level of satisfaction during prefeedback (chips) and feedback conditions. To determine the relationship between levels of customer satisfaction and rates of tellers smiling, greeting and looking at customers, customer responses were translated into a single number for each teller during each observation session. This was done by assigning a number value from 0 to 4 to each possible response category (unsatisfied = 0, somewhat satisfied = 1, satisfied = 2, very satisfied = 3, and extremely satisfied = 4) and the percentage of responses in each category multiplied by that value. The sum of the weighted values resulted in a single customer satisfaction rating (see Table 4). For example, if the colored chips assigned to W2 were distributed with 67% in the extremely satisfied category, 20% in very satisfied, and 13% in somewhat satisfied, W2's customer satisfaction rating for that session would be $.67(4) + .20(3) + .13(2) = 3.54$.

To ascertain the relationship between customer satisfaction ratings and the behaviors being observed, Spearman correlation coefficients were calculated for each behavior. The Spearman, or

ranked correlation coefficient, was selected because its use is recommended when the data being analyzed are comprised of both ordinal (customer satisfaction rankings) and ratio (observed behavior percentages) data (Haber, 1980). Greeting was found to be significantly correlated with customer satisfaction at the $p < .05$ level. Neither smiling nor looking at customers were significantly correlated with customer satisfaction. Correlations performed on individual teller's data were not significant due to the small number of pairs (see Table 5).

Branch W - Individual Subject Analysis

Figures 2, 3, and 4 show the observed percentages of smiling, greeting and looking at customers for tellers W1, W2, and W3. Note that each data point represents a block of five observed interactions.

Smiling increased substantially during the feedback condition for all tellers (Figures 2, 3, and 4). Although there was no substantial difference in tellers' W1 and W2 smiling rate during the chips condition, teller W3's smiling rate increased during that condition, then reverted to baseline levels when baseline conditions were reinstated.

Changes in variability were not consistent across tellers. Teller W1 showed a decrease in variability during the feedback condition as compared to previous conditions; W3 showed a decreased as compared to both the chips and reversal conditions. W2's variability during feedback actually increased as compared to previous conditions (see Table 6).

Greetings were also more frequent in the feedback condition than they were during baseline for all tellers (Figures 5, 6, and 7), however only W1 showed a substantial increase during feedback over the chips condition. As was the case with smiling, only W3 showed an increase over baseline during the chips condition followed by a return to near baseline levels during the reversal phase. (Note that reversal data are not available on W2 as she was not available for observation during the reversal condition.)

A decrease in variability, as compared to previous conditions, was apparent in both W1 and W3. Teller W2 showed little change in variability in post baseline conditions.

Looking at customers was at a relatively high rate during baseline for all three tellers, ranging from 50% to 84% (Figures 8, 9, and 10). All three tellers increased their rates of looking at customers during the feedback condition as compared to baseline. Again, W3 showed a reversal effect during the return to baseline condition. This was reflected both by the decrease in mean rate and the increase in variability during the reversal condition.

Variability decreased during feedback for all tellers, however the decrease was most extreme for W1 and W3, who deviated from a 100% rate on very few occasions during the feedback condition.

Customer Satisfaction ratings did not vary substantially from one observation session to the next for either W1 or W3, and dipped only once for W2 (Figures 11, 12, and 13). This is especially true when ratings for "extremely satisfied" and "very satisfied" are combined. When customer satisfaction was compared with each observed

behavior, only greeting was significantly correlated with it. Although the number of observed greeting/customer satisfaction pairs was too small for statistical significance to be determined on an individual basis, a positive pattern of covariance was seen for W3 (Figure 14, 15, and 16). Figures 17, 18, and 19 show the observation/customer satisfaction patterns for smiling, Figures 20, 21, and 22 for looking at customers. No strong patterns were apparent.

Branch S - Overview

A1 - Baseline

A total of 250 observations were recorded in Branch S during baseline. The group mean percentages of smiling at, greeting, and looking at customers were 34%, 59% and 62 % respectively. As was the case in Branch W, smiling consistently occurred less frequently than either greeting or looking at customers. Table 7 shows both group and individual baseline performance. Because the study was terminated after only a few observations in the next condition, only baseline data are presented.

Interobserver Agreement

Interobserver reliability was calculated on thirteen occasions. The mean average agreement was 91.9% for smiling, 93.8% for greeting, and 95.6% for looking at customers.

Table 3. Group and Individual Percentages of Interactions During Which Smiling, Greeting and Looking At Customers Were Observed in Each Condition

Branch W Group Data

Condition	Subject	# of Observations		Means*		
		Blocks of 5	Total	Smile	Greet	Orient
A1 (3/20 - 4/24)	W1	16	80	30	56	71
	W2	4	20	25	45	50
	W3	5	25	20	24	84
		total		125	27	48
B1 (4/24 - 5/13)	W1	13	65	46	71	75
	W2	11	55	27	78	71
	W3	7	35	57	86	89
		total		155	42	77
A2 (5/25 - 6/3)	W1	13	65	43	74	71
	W3	5	25	24	32	60
		total		90	38	62
B2 (6/7)	W1	4	20	40	80	75
		total		20	40	80
C (6/16 - 6/29)	W1	21	105	91	92	97
	W2	9	45	51	80	69
	W3	11	55	82	87	98
		total		205	80	88

			Total	595		

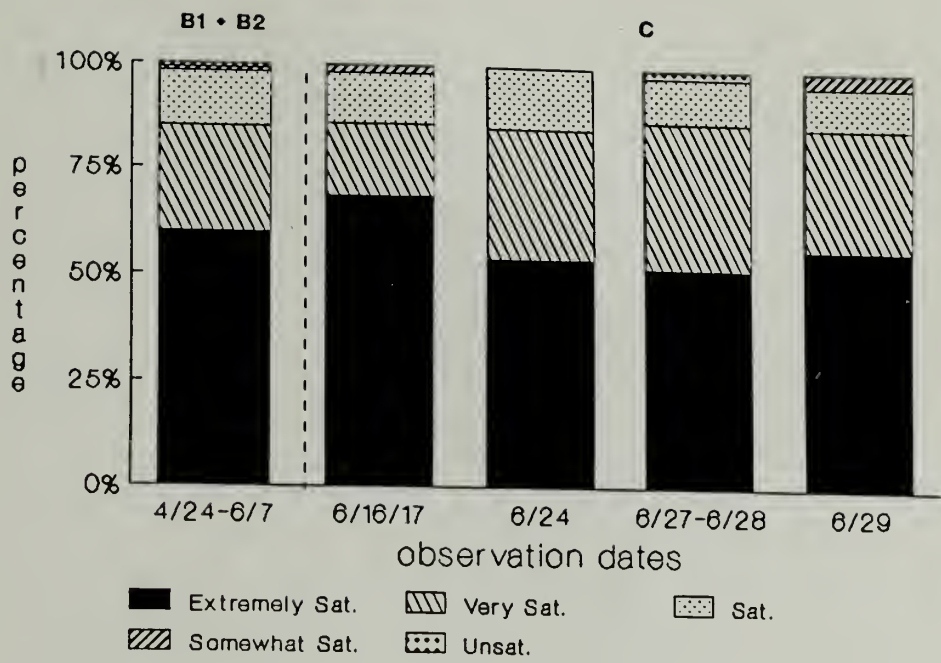


Figure 1. Customer Satisfaction Branch W.

Table 4. Customer Satisfaction Rating for Each Teller During Each Condition

Teller	Customer Satisfaction Rating						
	Ex.Sat.	V.Sat.	Sat.	S.Sat.	Un.Sat.	% Return	W _i *
Condition B (1)							
W1-4/24	10/15 (67%)	2/15 (13%)	3/15 (20%)	0	0	100%	3.47
W1-5/2	9/14 (64%)	2/14 (14%)	1/14 (7%)	0	2/14 (14%)	100%	2.82
W1-5/4	5/10 (50%)	3/10 (30%)	2/10 (20%)	0	0	100%	3.3
W2-5/4	21/36 (58%)	8/36 (22%)	4/36 (11%)	2/36 (6%)	1/36 (3%)	100%	3.26
W1-5/6	20/31 (65%)	4/31 (13%)	7/31 (23%)	0	0	100%	3.45
W3-5/6	15/26 (58%)	8/26 (31%)	2/26 (8%)	1/26 (4%)	0	100%	3.45
W1-5/9	5/11 (45%)	4/11 (36%)	2/11 (18%)	0	0	100%	3.24
W2-5/9	5/13 (38%)	2/13 (15%)	6/13 (46%)	0	0	100%	2.89
W2-5/13	13/27 (48%)	11/27 (41%)	3/27 (11%)	0	0	96%	3.37
W3-5/13	26/35 (74%)	7/35 (20%)	2/35 (6%)	0	0	97%	3.68
						(35/36)	
Condition B (2)							
W1-6/7	22/33 (67%)	8/33 (24%)	2/33 (6%)	0	1/33 (3%)	100%	3.55
W2-6/7	8/11 (73%)	1/11 (9%)	2/11 (18%)	0	0	100%	3.55
Condition C							
W1-6/16	15/20 (75%)	1/20 (5%)	3/20 (15%)	1/20 (5%)	0	100%	3.5
W3-6/17	13/21 (62%)	6/21 (29%)	2/21 (10%)	0	0	95%	3.55
W1-6/24	18/33 (55%)	10/33 (30%)	5/33 (15%)	0	0	97%	3.4
W3-6/24	22/41 (54%)	13/41 (32%)	6/41 (15%)	0	0	100%	3.42
W1-6/27	10/22 (45%)	11/22 (50%)	1/22 (5%)	0	0	100%	3.4
W1-6/28	9/19 (47%)	8/19 (42%)	2/19 (10%)	0	0	100%	3.34
W2-6/28	15/24 (63%)	4/24 (17%)	4/24 (17%)	0	1/24 (4%)	100%	3.37
W1-6/29	21/37 (57%)	11/37 (30%)	3/37 (8%)	2/37 (5%)	0	100%	3.39
W2-6/29	21/36 (58%)	10/36 (28%)	4/36 (11%)	1/36 (3%)	0	100%	3.41

Customer Satisfaction

* W_i = % under each satisfaction level multiplied by it's weight.
 Weights are 4 (extremely satisfied), 3 (very satisfied),
 2 (satisfied), 1 (somewhat satisfied) and 0 (unsatisfied).

Table 5. Group and Individual Correlation Between Customer Satisfaction and Target Behaviors

Ranked Correlation Coefficients					
Subject	Smile	Greet	Look At	r at <.05	n
W1	-.059	.240	.375	.535	11
W2	.462	.720	.397	.886	6
W3	.400	.800	.000	1.000	4
Group	.276	.501*	.074	.439	21

*significant at $p < .05$

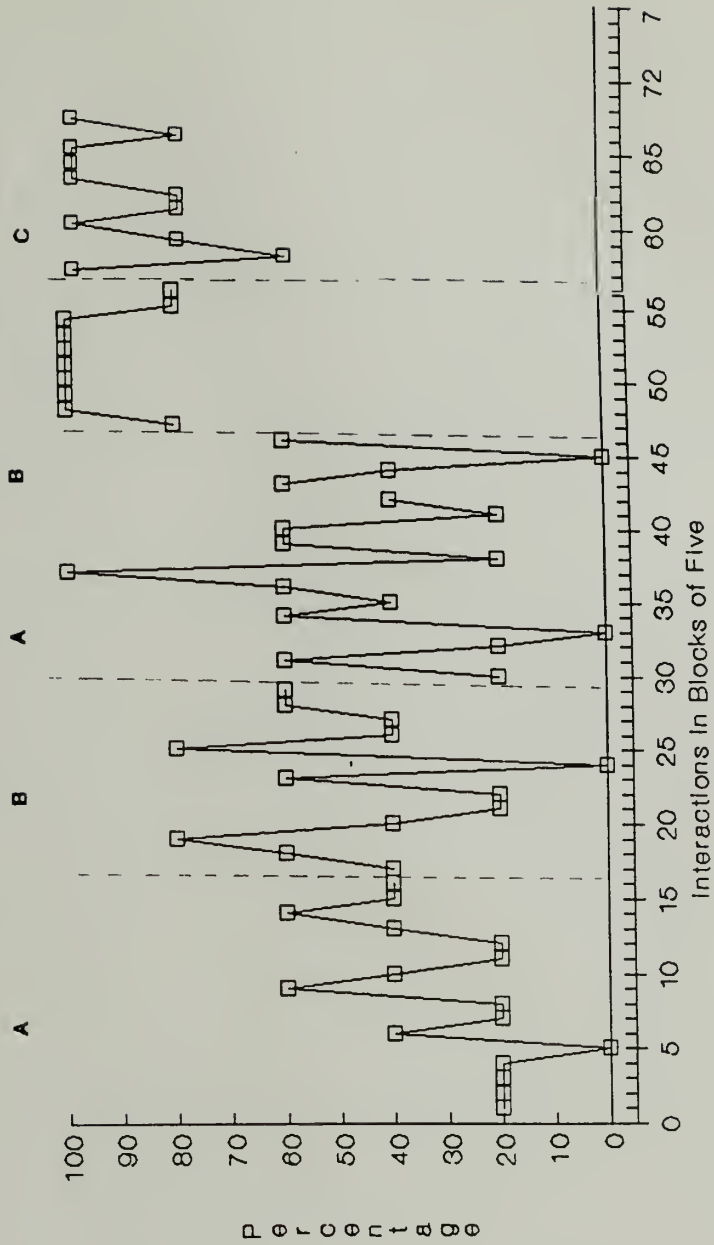


Figure 2. Percentage of Interactions During Which Teller W1 Smiled at Customers During Each Experimental Condition.

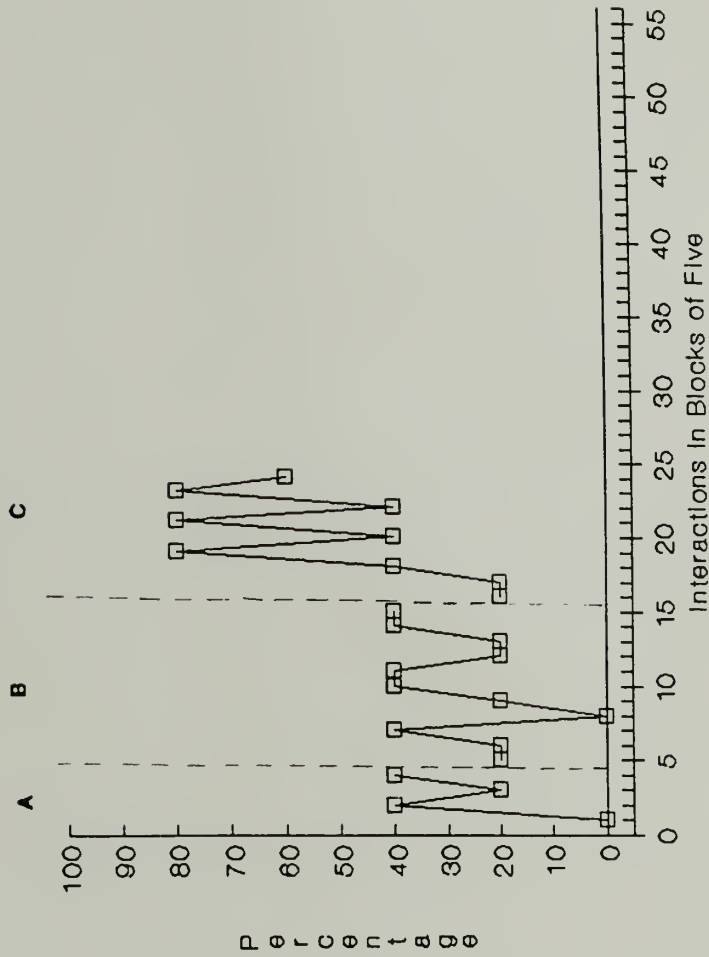


Figure 3. Percentage of Interactions During Which Teller W2 Smiled at Customers During Each Experimental Condition.

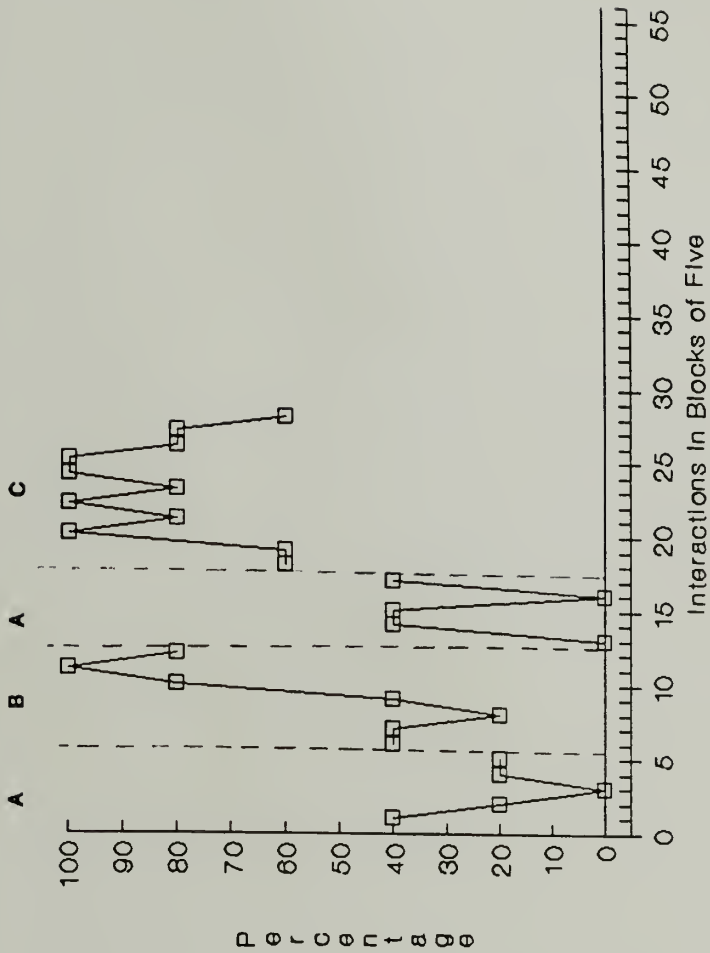


Figure 4. Percentage of Interactions During Which Teller W3 Smiled at Customers During Each Experimental Condition.

Table 6. Target Behavior Means and Standard Deviations for Each Teller During Each Condition

Means and Standard Deviations

Condition	Subject		Smile	Greet	Orient
A1					
	W1	M	30	56.3	71.3
		S	16.3	29.4	19.3
	W2	M	25	45	50
		S	19.1	10	34.6
	W3	M	20	24	84
		S	14.1	21.9	16.7
B1					
	W1	M	46.2	70.8	75.4
		S	23.6	17.5	21.8
	W2	M	27.3	78.2	70.9
		S	13.5	18.9	22.6
	W3	M	57.1	85.7	88.6
		S	29.3	15.1	10.7
A2					
	W1	M	43.1	73.8	70.8
		S	26.9	25	21
	W3	M	24	32	60
		S	21.9	22.8	31.6
B2					
	W1	M	40	80	75
		S	28.3	16.3	10
C					
	W1	M	91.4	92.4	97.1
		S	12	13.4	9.6
	W2	M	51.1	80	68.9
		S	24.7	17.3	17.6
	W3	M	81.8	87.3	98.2
		S	16.6	16.2	6.0

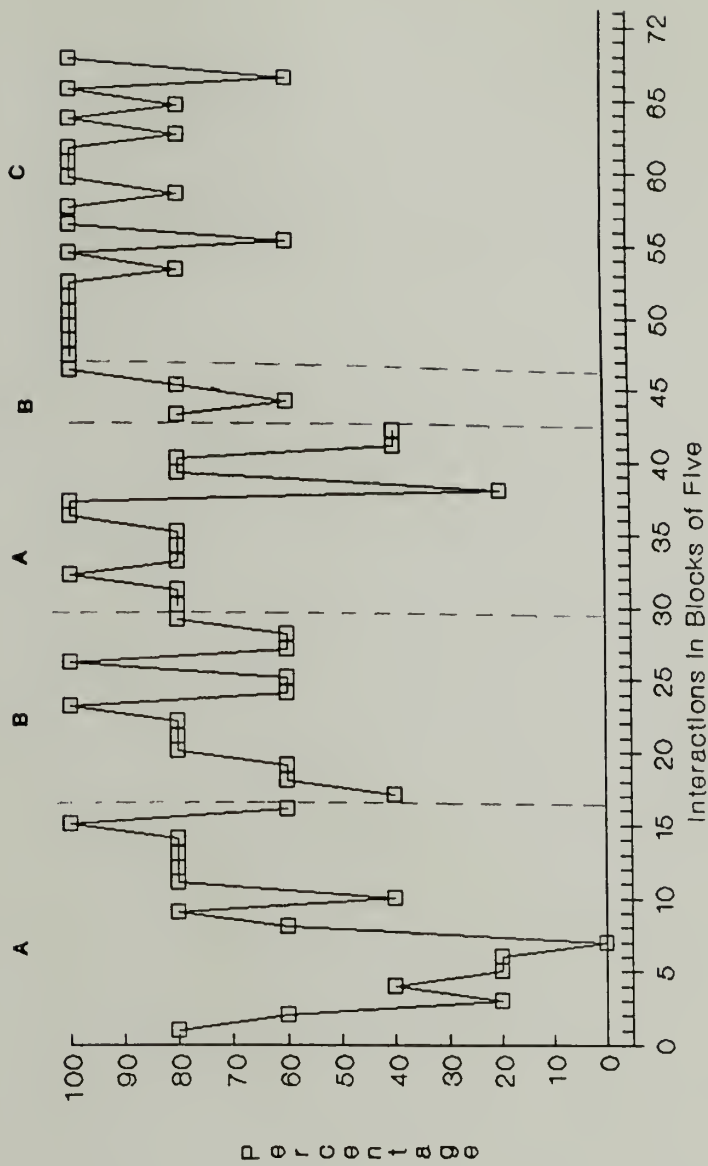


Figure 5. Percentage of Interactions During Which Teller W1 Greeted Customers During Each Experimental Condition.

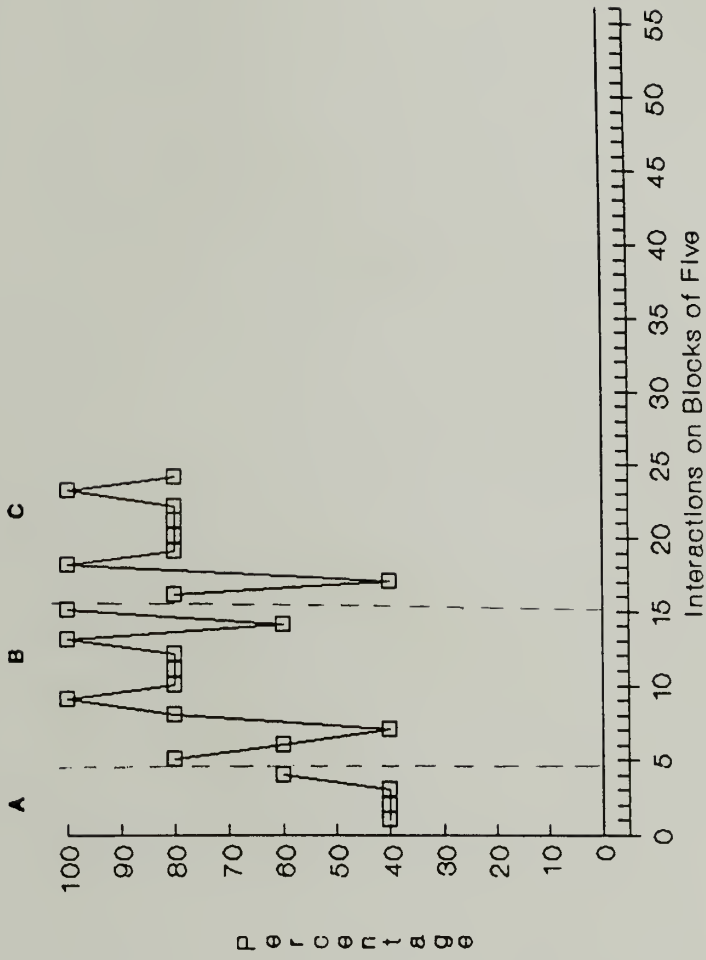


Figure 6. Percentage of Interactions During Which Teller W2 Greeted Customers During Each Experimental Condition.

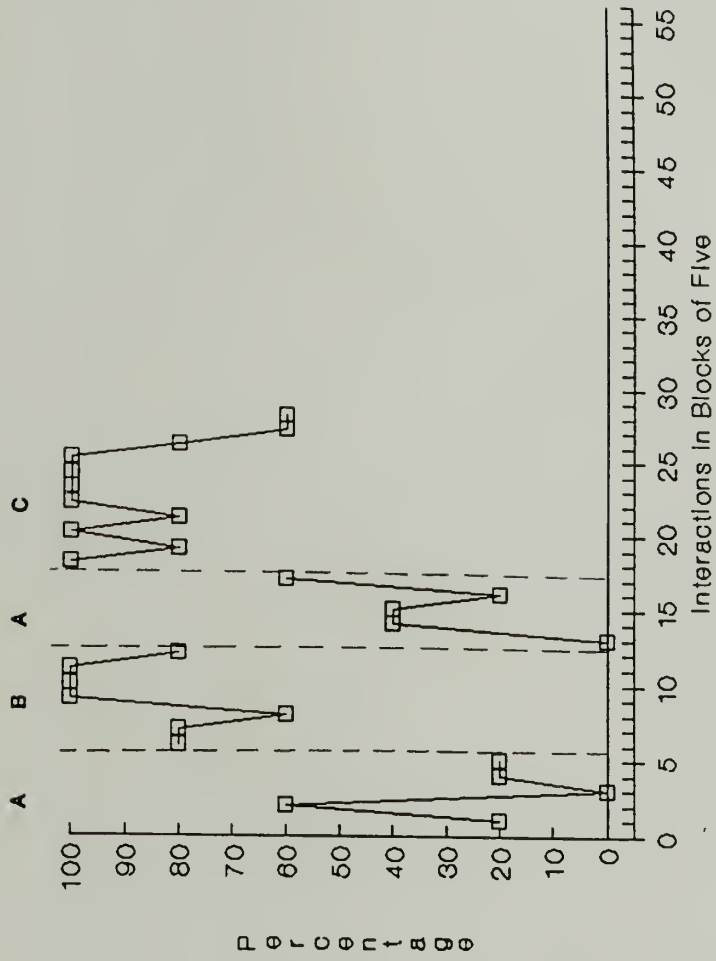


Figure 7. Percentage of Interactions During Which Teller W3 Greeted Customers During Each Experimental Condition.

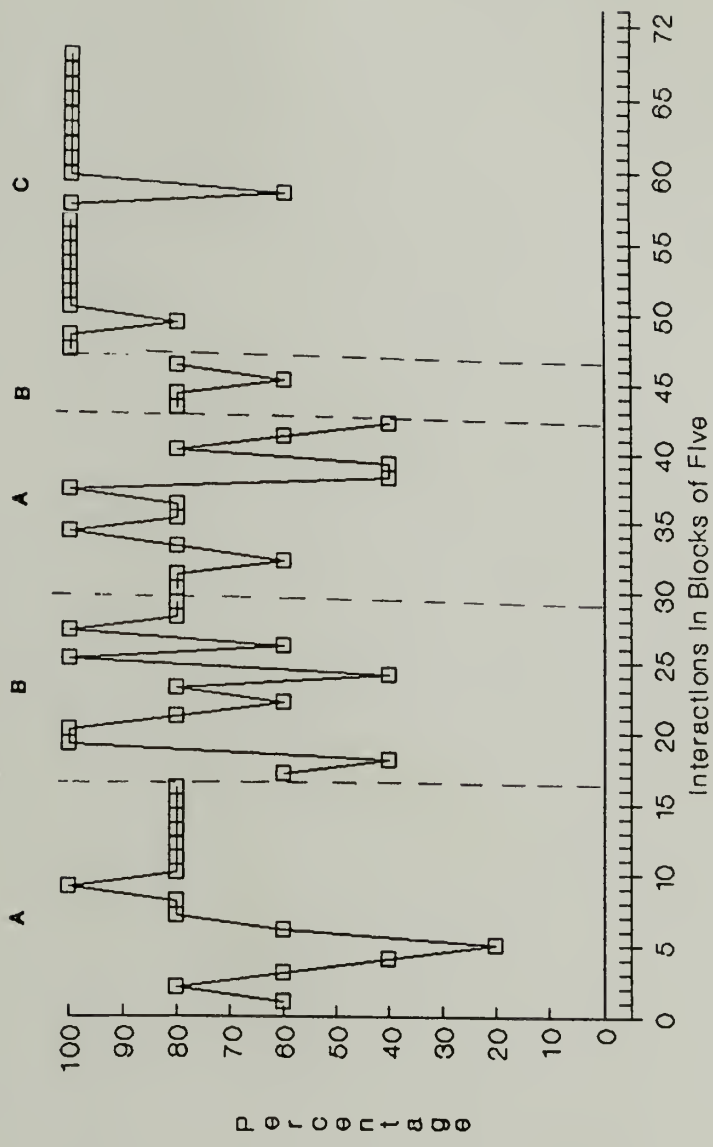


Figure 8. Percentage of Interactions During Which Teller W1 Looked at Customers During Each Experimental Condition.

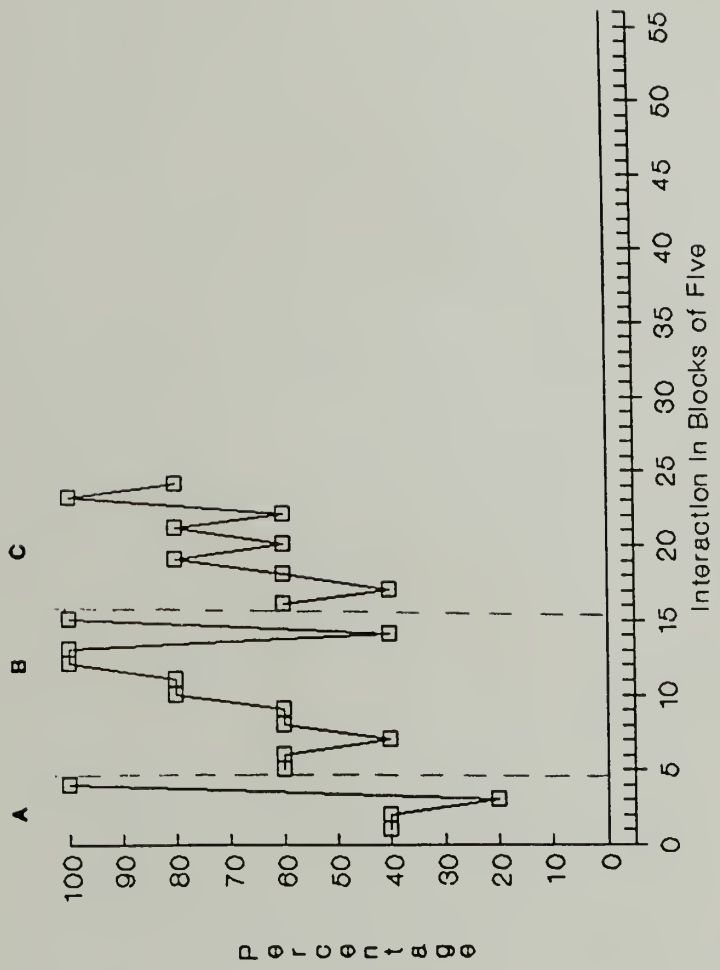


Figure 9. Percentage of Interactions During Which Teller W2 Looked at Customers During Each Experimental Condition.

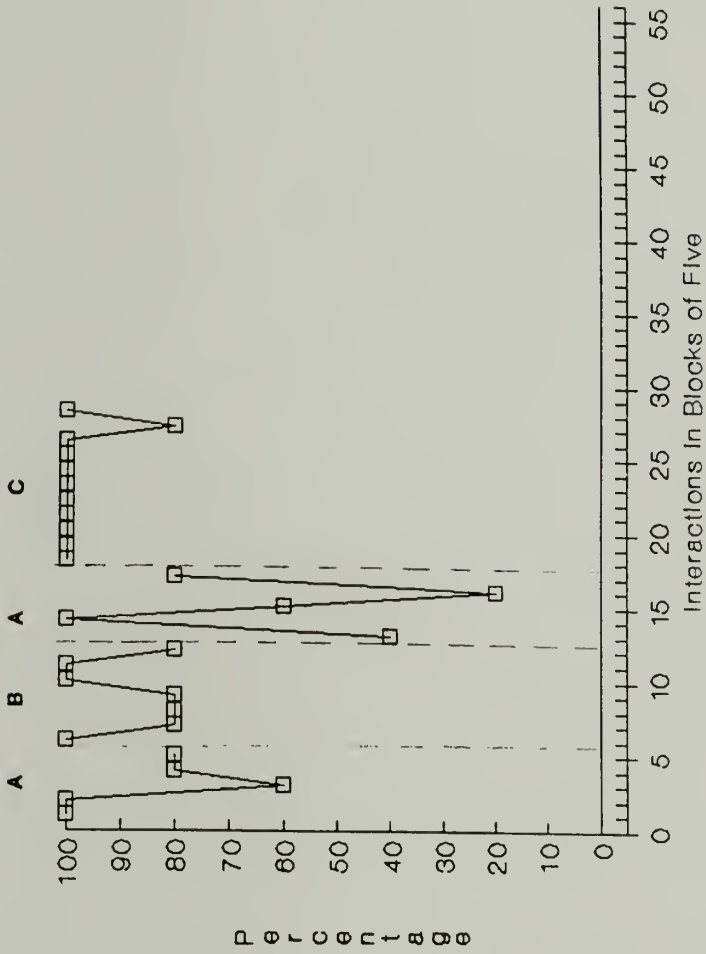


Figure 10. Percentage of Interactions During Which Teller W3 Looked at Customers During Each Experimental Condition.

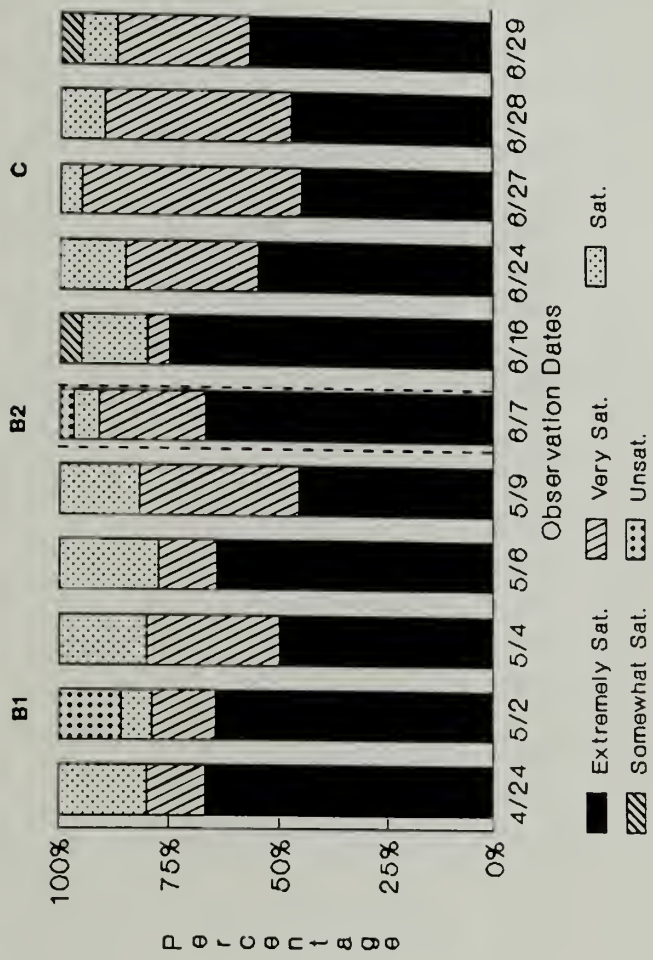


Figure 11. Proportion of Customers Responding at Each Satisfaction Level to Teller W1 During Each Condition.

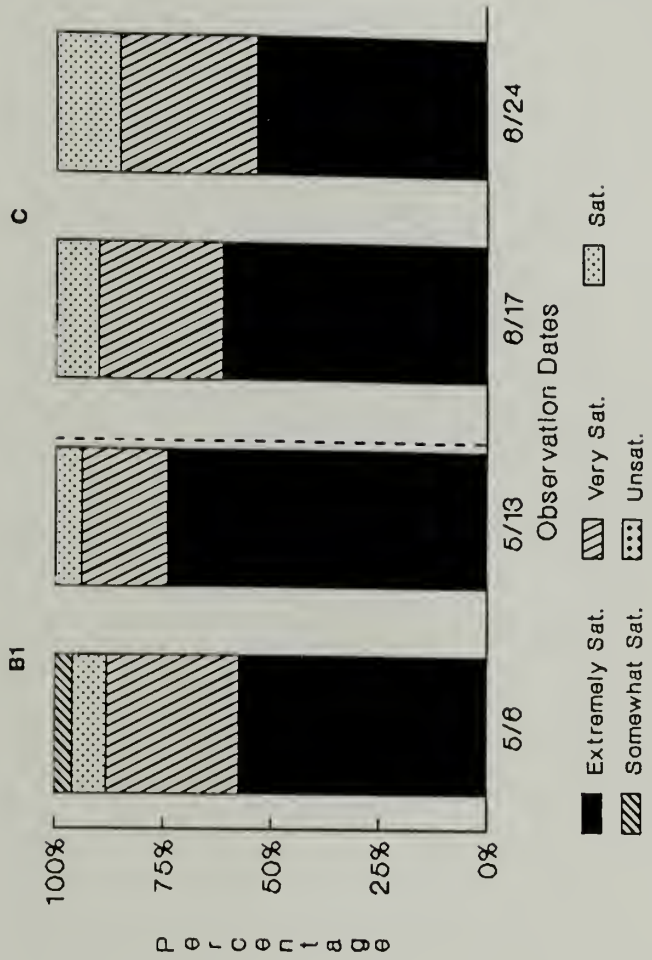


Figure 12. Proportion of Customers Responding at Each Satisfaction Level to Teller W2 During Each Condition.

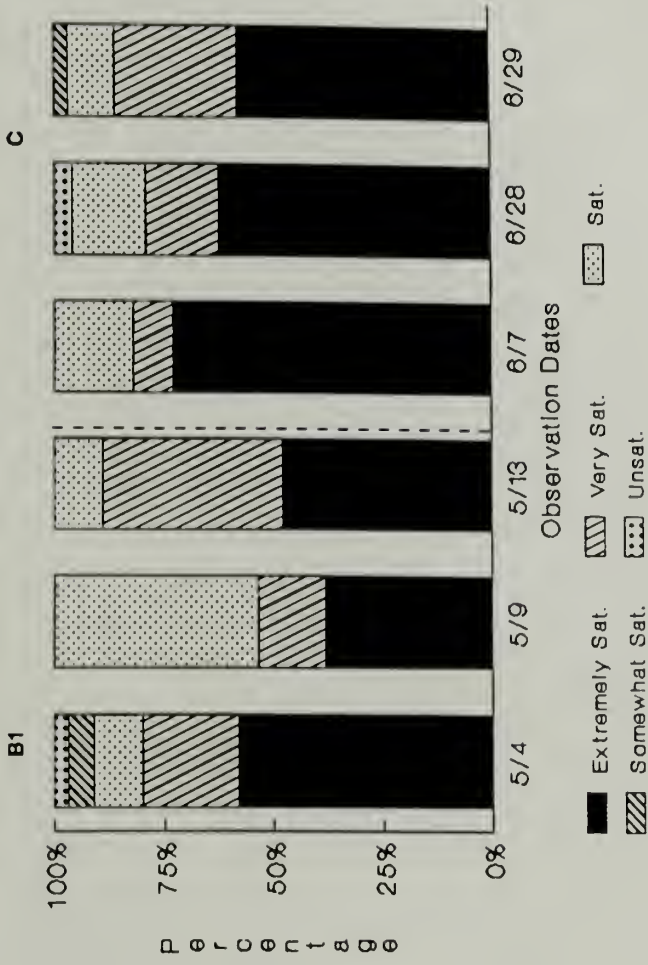


Figure 13. Proportion of Customers Responding at Each Satisfaction Level to Teller W3 During Each Condition.

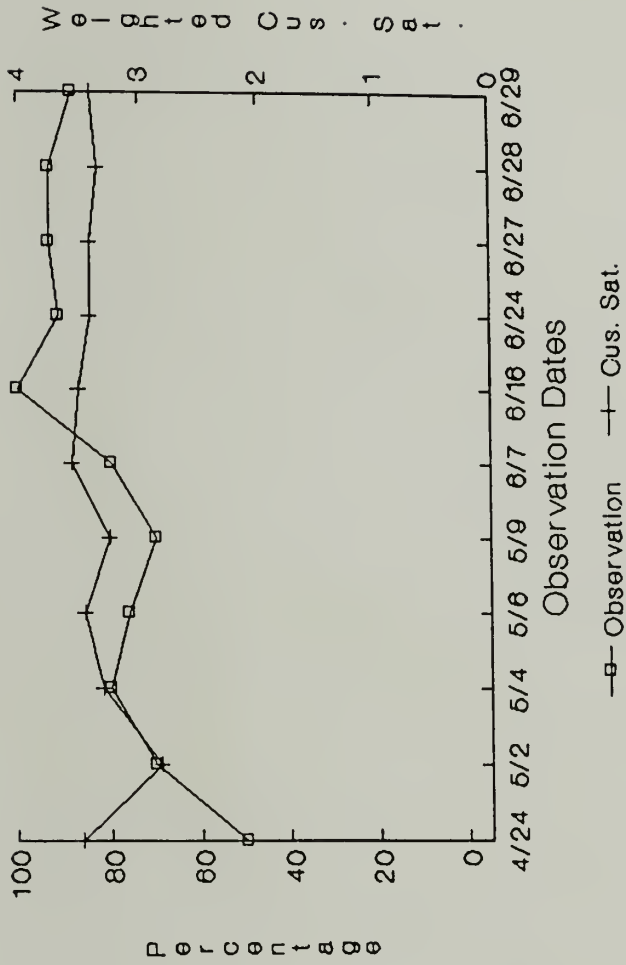


Figure 14. Covariance of Teller W1 Greeting and Customer Satisfaction During Each Condition.

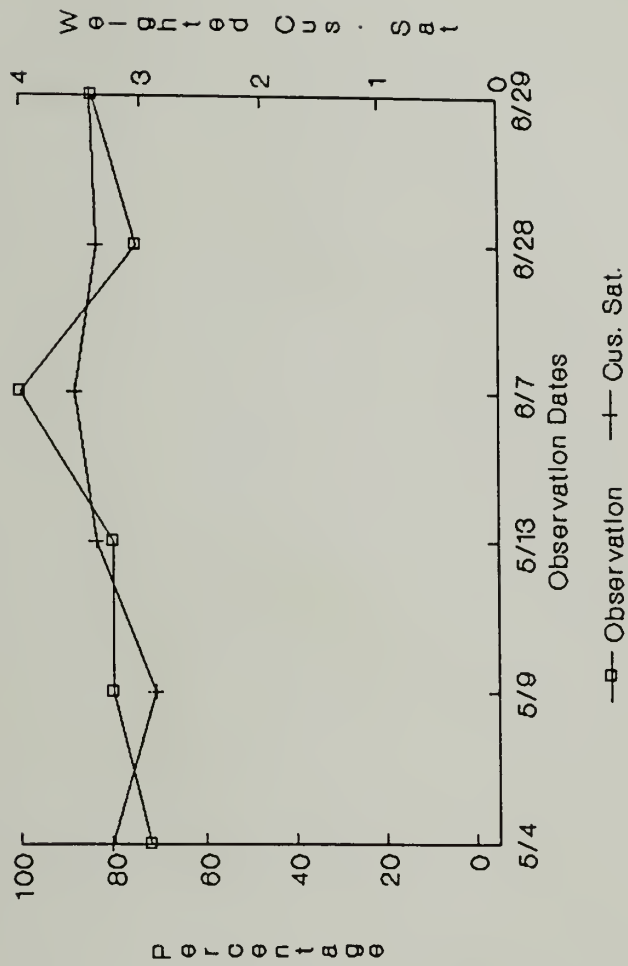


Figure 15. Covariance of Teller W2 Greeting and Customer Satisfaction During Each Condition.

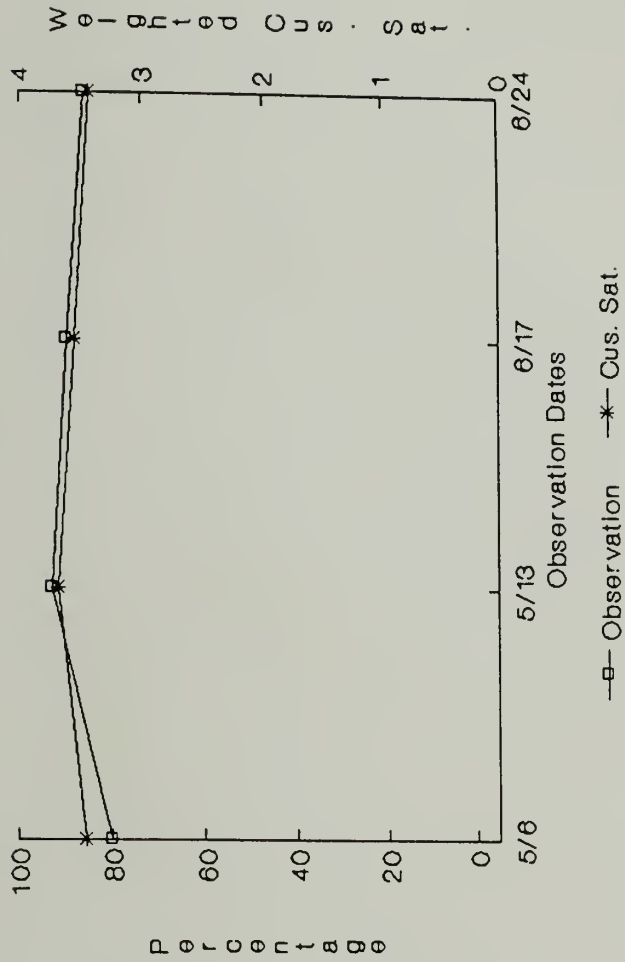


Figure 16. Covariance of Teller W3 Greeting and Customer Satisfaction During Each Condition.

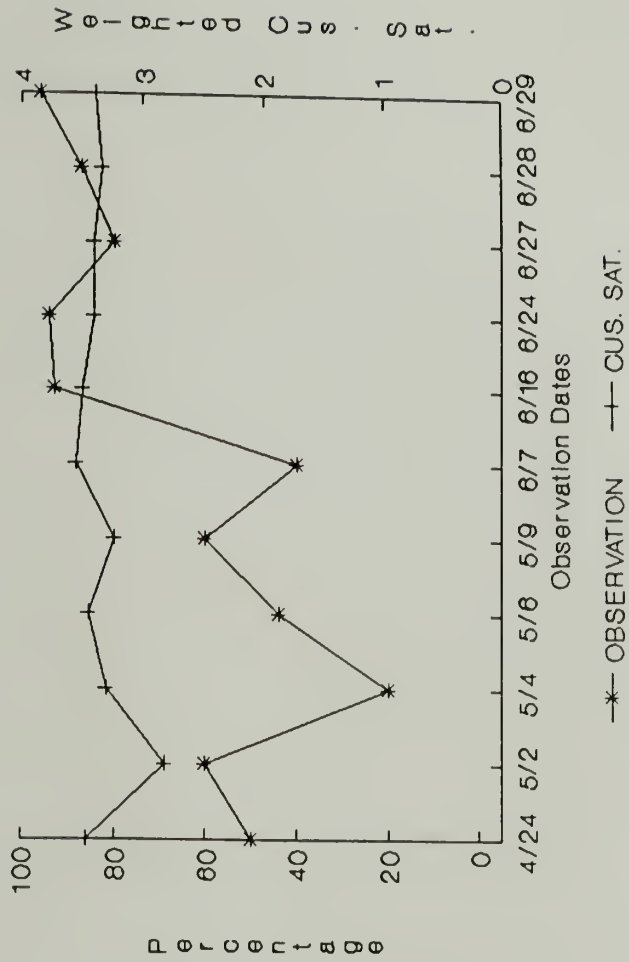


Figure 17. Covariance of Teller W1 Smiling and Customer Satisfaction During Each Condition.

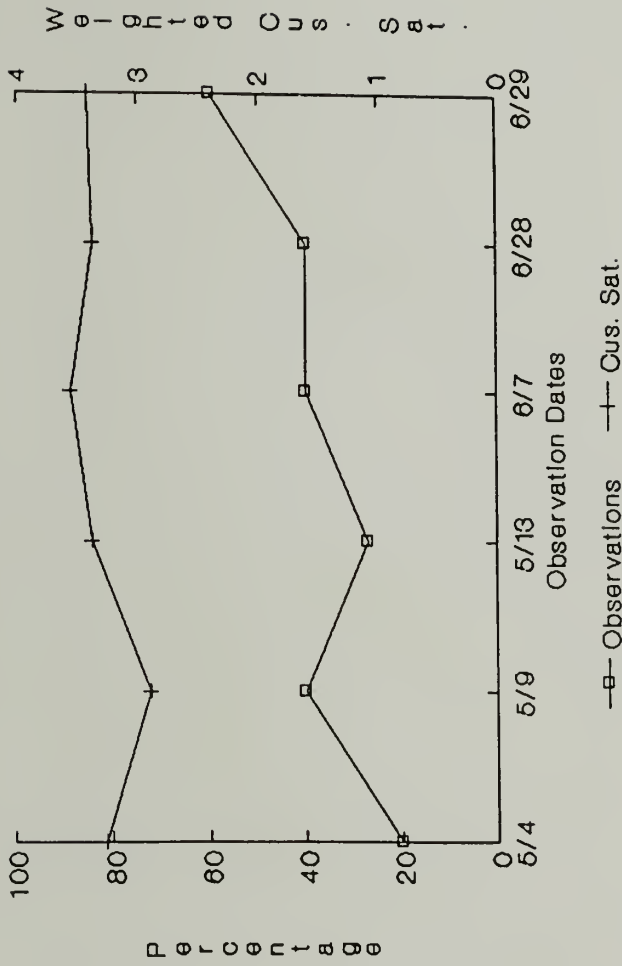


Figure 18. Covariance of Teller W2 Smiling and Customer Satisfaction During Each Condition.

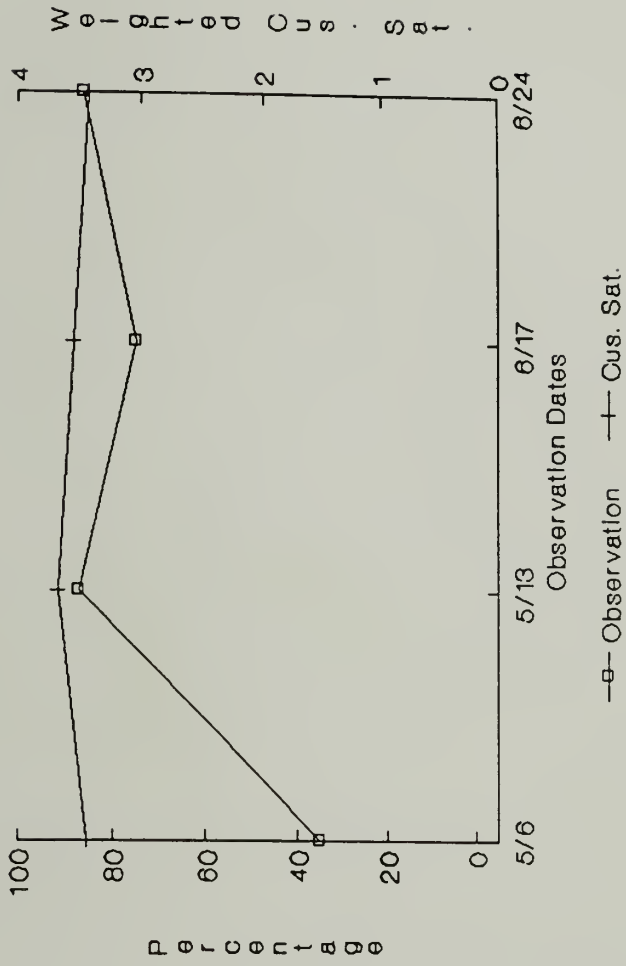


Figure 19. Covariance of Teller W3 Smiling and Customer Satisfaction During Each Condition.

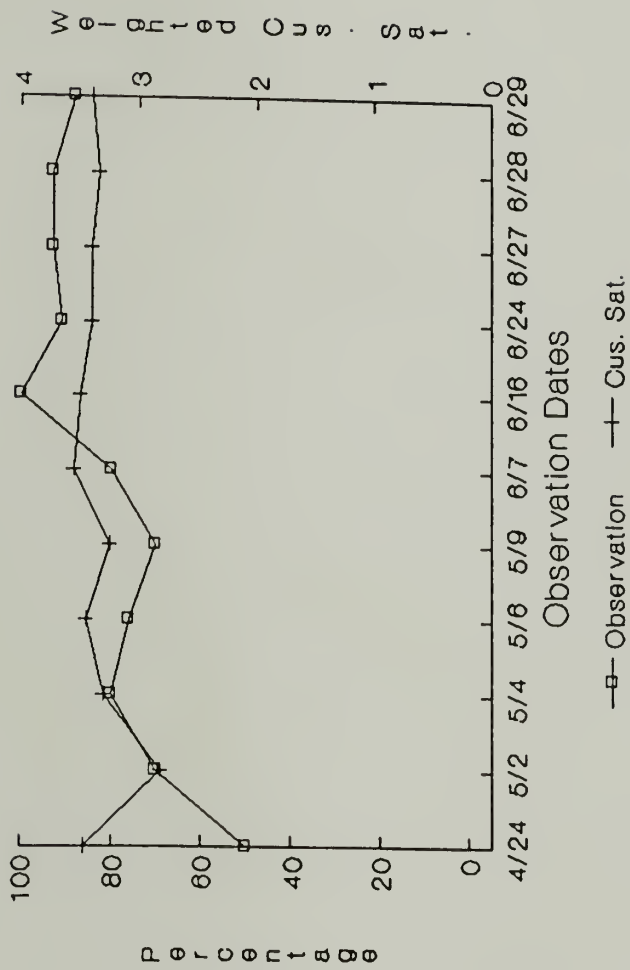


Figure 20. Covariance of Teller W1 Looking At Customers and Customer Satisfaction During Each Condition.

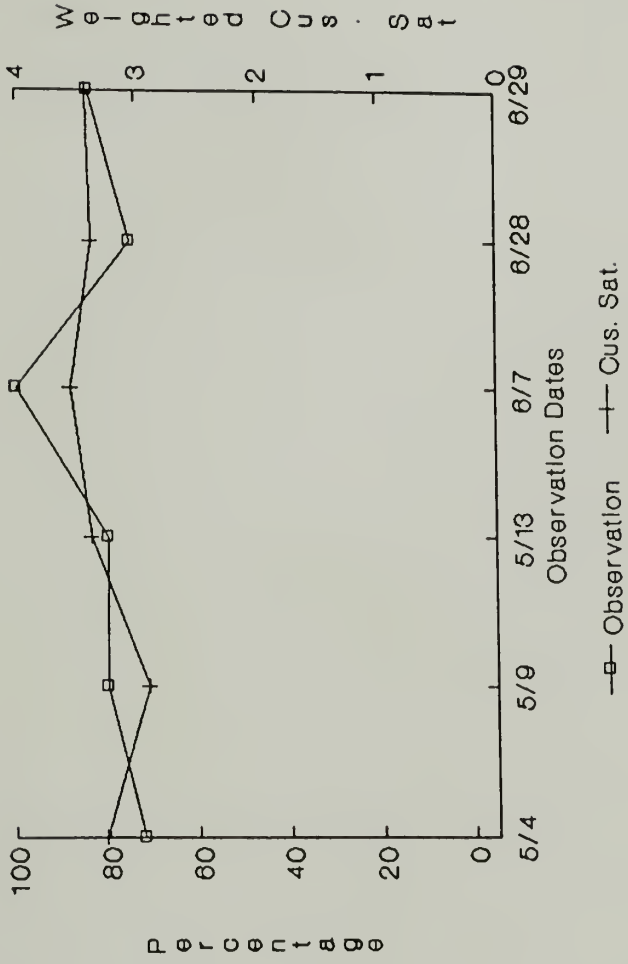


Figure 21. Covariance of Teller W2 Looking At Customers and Customer Satisfaction During Each Condition.

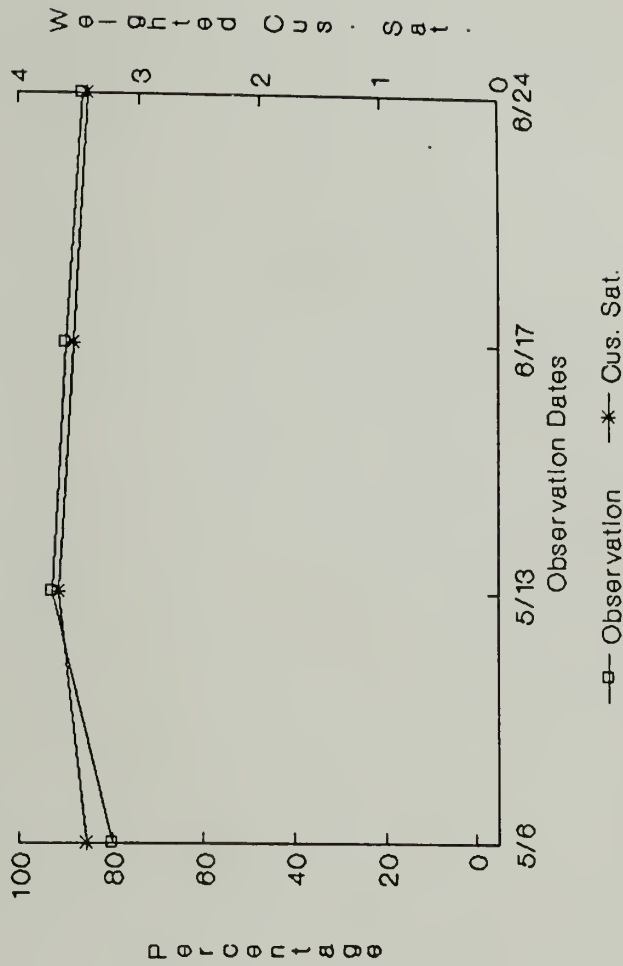


Figure 22. Covariance of Teller W3 Looking At Customers and Customer Satisfaction During Each Condition.

Table 7. Branch S Group Data

Condition	Subject	# of Observations		Means *		
		Blocks of 5	Total	Smile	Greet	Orient
A1 (4/23 - 5/9)	S1	14	70	34	54	67
	S2	15	75	16	53	47
	S3	7	35	63	74	83
	S4	5	70	49	71	63
			total	250	34	59

CHAPTER 4

DISCUSSION

This study sought to determine whether bank tellers' rates of smiling at, looking at, and greeting their customers in the initial seconds of the service interaction would increase following feedback. It further sought to examine the relationship between those teller behaviors and levels of customer satisfaction.

Feedback

As discussed in the introduction, many researchers have demonstrated the power of feedback in many settings. In accordance with the literature, all three target behaviors increased during the feedback condition, although the impact of feedback was most dramatically demonstrated by teller smiling. All of the tellers smiled at a relatively low rate during baseline as compared to greeting and looking at customers, which provided greater room for improvement in the smiling rate than in the other target behaviors. This was an interesting finding. The literature suggests that females smile more than males whether those observed are adults (Halberstadt & Saitta, 1987), or children (Berman & Smith, 1984) and in both typical and mentally retarded populations (Sigelman, Elias-Burger, Danker-Brown, & Burger, 1982). It would have been interesting to observe both male and female subjects to see if 1) males would exhibit even lower smiling rates than did our all female subject population 2) males' smiling rates would be as amenable to feedback.

Another interesting alteration to the present study would be the inclusion of an analysis of the feedback used. Due to the schedule

constraints of the subjects (summer vacations and so on) it was not possible to prolong this study by introducing additional conditions. Had we had the luxury of time, it would have been useful to tell the subjects exactly what behaviors were being observed prior to the introduction of the feedback condition. This would have allowed us to analyze the effect of task clarification (antecedent stimulus) separately from the reinforcing quality of feedback as Crowell et al. (1988) did. Although not experimentally analyzed, however, the feedback seemed to the experimenter to have been seen in a positive light by the tellers, as evidenced by their expressions of pleasure at their improvement and their requests that the experimenter share individual data with superiors.

It may also have been useful to experimentally analyze the relative effectiveness of group versus individual feedback, although this may be of limited utility from a practical standpoint, as it is easy and inexpensive to provide both simultaneously. Behavioral treatments are often a combinations of two or more procedures termed "packages". Without conducting a systematic component analysis, of course, a functional relation between any one component and behavioral change cannot be established. According to Sulzer-Azaroff and Mayer (1977), however, it is acceptable to analyze the effectiveness of a package as a whole when individual components do not require extraordinary effort and are not costly.

Although not done in the current study, group and individual feedback were experimentally compared in a study by Newby et al. (1983). Drug store clerks were given group and individual feedback

separately. Individual feedback increased efficiency, whereas group feedback did not. In that study, however, both individual and group feedback were publicly posted and included the number of accounting errors committed. Potential aversiveness can be a major disadvantage of publicly posted feedback (Pure et al., 1981). For that reason, the Newby et al. (1983) study is not directly comparable to the present study, because in the latter negative results were not measured or posted. We were measuring and posting the frequency of positive (friendly) behaviors, not the number of negative (unfriendly) behaviors, or the number of errors committed. Also, individual feedback was strictly private in the present study, which may have rendered it less powerful than if it were public, but also diminished its potential aversive nature. Public group feedback was used because it provided the branch manager with the data necessary to praise tellers for their performance. Of course, whether individual or group, the potential for public feedback to be aversive is usually present. For instance, had the manager criticized the tellers for low baseline rates of the target behaviors, or for insufficient improvement, the group feedback would have been aversive. The manager in this study was, of course, instructed to give only positive feedback.

Relationship Between Service Friendliness and Customer Satisfaction

It is important to note, however, that this study was not designed primarily as a vehicle for examining and/or demonstrating the efficacy of feedback as a behavior change strategy. A large body of

literature has accomplished that. Therefore it was expected that feedback would produce the desired change in teller behavior. Rather, the particular concern in this study was assessing the possible relationship between the three target behaviors and levels of customer satisfaction.

It was hypothesized that customer satisfaction would be positively correlated with increases in the target behaviors. Research has shown that when initial impressions are being formed, the first information received is more enduring than later information. This is referred to as the primacy effect (Gergen & Gergen, 1981, chap. 2; Vander Zanden, 1977, Chap. 2). Working on the assumption that most tellers are not well acquainted with their customers due to high teller turnover rates and transient customer bases, it was expected that a display of friendly behaviors at the beginning of an interaction with a customer would result in positive impression formation by the customer, which would be reflected in a higher level of satisfaction with teller service. To the extent that the teller/customer relationships in the study site were representative of teller/customer relationships in general, any correlations between customer satisfaction and teller friendliness in the study site could be generalized to other sites. This became in issue in the present study.

Because a multiple baseline across two branches was planned, study sites selected were those where the probability of "floating tellers", was low due to their locations away from the metropolitan area. To accommodate optimal branch coverage, tellers in the

metropolitan branches are often temporarily transferred to other branches on an "as needed" basis. Our goal was to avoid branches with a high probability of "floating tellers" to reduce the possibility of a teller in a treatment stage of the study being temporarily transferred to a branch still in baseline. Not only would the temporarily transferred teller's data be invalid, but the potential for the treatment conditions to be shared with the tellers in baseline would be present. In order to accomplish this, it was necessary to conduct the study in branches not in the metropolitan area. Non-metropolitan branches experience less frequent turnover and have more stable retail customer bases. The tradeoff, then, in selecting these branches was working with staffs of long term employees in very stable, nontransient communities. It was expected that this concession would result in observing tellers who would be more familiar with some of the customers than we had initially planned. In fact, however, the full-time tellers in the branch that completed the study were well acquainted with not just some, but with the vast majority of their customers, which allowed them to have interactions that were very different than expected. How well acquainted tellers and customers were was critical. We expected that the majority of interactants would be relative strangers, which, based on the primacy effect, would make the initial seconds of the interaction most important. On that basis, we measured only the first three seconds of the interactions. The experimenter noticed, however, that even when the target behaviors did not occur during the first three seconds, a very personal, friendly exchange often ensued. Tellers and customers

were well enough acquainted to hold very personal conversations on topics such as recent surgeries, family weddings, divorces, vacations, parties etc. The measurement system used in this study was not able to pick up this kind of friendly exchange. It is possible that this type of exchange supercedes the measured target behaviors in terms of customer satisfaction. If the study were replicated in branches where tellers were not well acquainted with customers (due to transient customer base and teller turnover), it is possible that correlations would be found between the target behaviors and customer satisfaction that were not found in the present study.

The data from the part-time teller (W3) in the present study lend some support to this notion. Unlike the two full-time tellers (W1 and W2) who were long term town residents and branch employees, the part-time teller was not. She lived in another town and worked in that branch on Saturdays only. She did not appear to have the kind of personal relationships with her customers that fosters personal conversations. In that respect, her data were of particular interest because they were potentially more representative of the population of unacquainted interactants we had in mind when designing the study.

It is interesting to note that when correlation coefficients were calculated, the highest value ($r = .8$) was obtained when customer satisfaction and greeting were compared for teller W3, although the number of satisfaction-greeting pairs was insufficient to obtain statistical significance for her individually. Whether the difference between data from W3 and the other tellers is idiosyncratic or is related to limited versus extensive prior relationships with customers

is, of course, an empirical question that can only be answered experimentally.

Another component of the interaction that was not measured, but that may be related to customer satisfaction, was its termination. The experimenter observed that the tellers often smiled at, looked at, and said "good-by" to customers, even when they did not exhibit the target behaviors in the beginning of the transaction.

Effect of Chips on Service Friendliness

In addition to the difference in correlation data between W3 and the two long term tellers (W1 and W2), teller W3 was more dramatically affected by the chips phase of the study. Only W3's smiling rate increased substantially during the chips phase and her greeting rate increased during that phase more dramatically than that of W2. The chips did not have a noticeable affect on any of the tellers' rates of looking at customers. It is possible that the chips were not as influential with the long term tellers as they were with the W3, the part-time teller, because the long term employees relied more on the overall, friendly interactions they had with their customers to produce positive customer satisfaction ratings. W3 was not sufficiently familiar with her customers to facilitate personal friendly conversation and she may have had to rely on more surface, impersonal friendly behaviors, such as those we were measuring. Again, this is an empirical question that cannot be answered with so few subjects. Replication of the present study adding metropolitan branches with transient customer bases or branches staffed by relatively short-term employees would be necessary.

Utility of Chips as a Customer Satisfaction Data

Collection Tool

The method devised to accommodate the collection of customer satisfaction data, using poker chips to be deposited in an on-site receptacle, was extremely successful. Not only were we able to get daily response data for each individual teller without inconveniencing customers, but we had a remarkable response rate of 99%. This customer response rate far exceeded our hopes and expectations. Although the experimenter did not take actual data on the number of customers who did not receive a chip from his/her teller, that omission appeared to be a very rare event, probably occurring fewer than ten times over the course of the study. As far as customer convenience was concerned, the experimenter never heard a complaint from a customer about being asked to deposit the chip, nor, upon inquiry, did the manager report any complaints. In fact, the chips elicited many positive, humorous exchanges between the tellers and customers. This effect was noticed by both the experimenter and branch manager. Additionally, on the consumer satisfaction survey completed by the tellers at the termination of the study, tellers were generally positive about future uses of the chips system, saying either that they would highly recommend its future use or that they were neutral about its future use. They also recommend the system to obtain customer satisfaction data about things other than teller service, such as ATM (automatic teller machine) locations, platform service, products offered and fees. The results strongly suggest the potential value of this method in future customer satisfaction research.

Causes and Implication of Loss of Branch S

It is interesting to speculate on the possible reasons for the loss of one of the two branches following baseline observations. There were several differences between the branches. Although no incentives were offered for participation to either branch, tellers in the branch that completed the study (Branch W) had positive expectations and asked whether their data could be shared with bank administration if it was "good", with the expressed hope that the information would positively impact subsequent job evaluations. However, retirement was imminent for several of the tellers in Branch W (the "lost branch"), one within several months and one within a year of the study. Clearly, participation and improvement offered no potential for professional gain for those tellers.

Another difference between the branches involved the teller staffs' relationships with management. Although both managers had been in their respective locations for the same period of time, the manager of Branch S had, by her own admission, a strained relationship with her teller staff as compared with the Branch W manager. The Branch S tellers, according to their manager, had previously been illuded by bank administration and were extremely distrustful toward administration in general. Because initial approval for the study came through top level administration, it is possible that tellers in Branch W were less willing to believe that the experimenter 1) was operating independently of bank administration and 2) would keep all information confidential. It also became clear that, despite the written and oral explanations of the voluntary nature of their

participation, tellers in Branch S felt that they were somehow required to do so. The experimenter was unable to dislodge this belief or to elicit further discussion about their reactions.

These problems have several implications for future research. Potential benefit to the subject should receive greater emphasis. If intrinsic benefits are not sufficient, then some extrinsic incentives for participation should be available. These could be in the form of participation contingent incentives (e.g. lottery tickets, gift certificates, etc.), or performance contingent incentives (e.g. certificates in personnel file for improved performance). Additionally, new tellers, who may perceive themselves to be more promotable than those who have held the same position for many years, may be more receptive and therefore be preferable as subjects. It may also be beneficial to promote a sense of program ownership in the tellers by involving them in the planning phase of the study. They would then be less likely to try to sabotage the program, especially if corporate support for improvement were apparent.

Maintenance

An obvious omission in this study is the provision for maintenance of the behavior changes following the termination of the study. The experimenter spoke with the branch manager informally and suggested that she periodically monitor the tellers for the target behaviors and give them positive verbal feedback. However, the lack of visible support from bank administration for either the branch manager or tellers (i.e. no acknowledgement of branch manager or tellers for their participation and/or improvement) would make it very

unlikely that the behavior will continue. Lack of on the job support is often cited as the primary reason for the failure of trained skills to be maintained (Meigs-Burkhard, T., 1986).

Summary

Feedback, as expected, was effective in increasing smiling, greeting and looking at customers by all subjects. Further, a positive correlation was found between customer satisfaction and greeting. Chips were found to be an extremely successful customer satisfaction data collection method, yielding a 99% customer response rate. Further research suggested by this study includes the utilization of the chips methods in other settings and/or in evaluating other issues of concern to customers. Also, replication of this study with more subjects in branches with both strong and weak preexisting teller/customer relationships would help to establish the relative importance of the teller/customer relationship in customer satisfaction.

APPENDIX A

INFORMED CONSENT

Bank tellers are the banks' most visible representatives. A customers' interactions with you may well be the only personal interactions s/he has with the bank, and as such your role in providing good customer service is critical to the success of the organization.

This research project is designed to determine whether or not some specific teller/customer interactions have a positive impact on customer satisfaction. Participation is strictly voluntary and will not entail additional work responsibilities.

The project will be carried out in two phases. Initially, your typical interactions with your customers will be observed by myself and/or my research assistant. In the second phase, I will talk with you about the specific behaviors we are interested in and show you the results of our initial observations. We will then resume observation and you will receive weekly feedback telling you exactly what we have observed.

The branch manager will be aware of the projects goals and methods, however s/he will be given only averaged group information and will receive no information about any individuals. Information about you will remain strictly confidential.

It is important that two things be very clear to you. One is that you will not be asked to exhibit any difficult or time consuming behavior. The other is that your job performance evaluation will in no way be affected by your refusal to participate or your project data should you choose to participate.

If you choose to participate, a summary of the project will be given to you upon its completion. The data from this study will be used by me in partial fulfillment of my graduate school requirements and may be used for publication in professional journals and/or for presentation at professional conferences. As in all research such as this, neither participants' names nor any identifying characteristics will be made public from this study.

The project will last for approximately four months. Your participation is totally voluntary. Therefore, while I hope you would plan to participate for the duration of the study, you should feel free to withdraw at any time. If you have any questions at all regarding this project, feel free to call me at either of the numbers below.

Thank you for your time and consideration.

Carolyn Shaw Brown
516 Tobin Hall
University of Massachusetts
Amherst, Mass.
413-545-0794, 508-829-5889

I have read the consent form and agree to participate in this study.
I understand that I may withdraw at any time.

Carolyn Shaw Brown
413-545-0794
508-829-5889

Name (please print)

Signature

Date

APPENDIX B

TELLER BEHAVIOR CHECKLIST

Date: _____

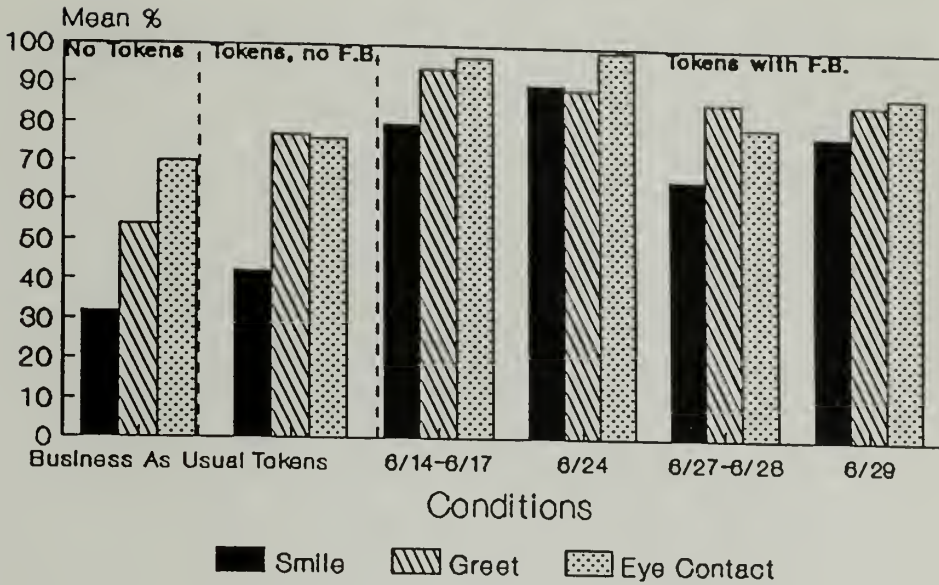
Observer: _____

Code: means yes
 - means no
 0 unable to obs.

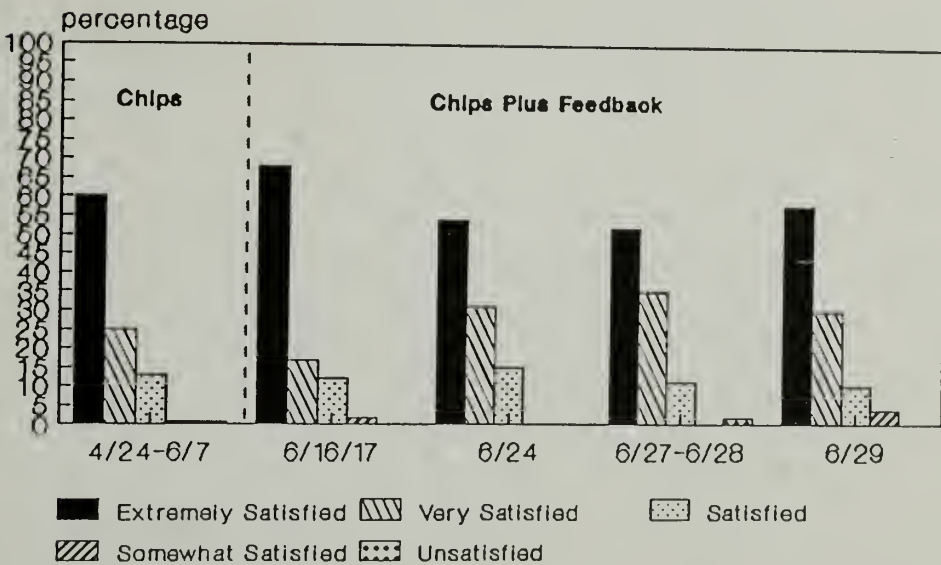
<u>Teller</u>	<u>Smile</u>	<u>Greet</u>	<u>Orient</u>	<u>Teller</u>	<u>Smile</u>	<u>Greet</u>	<u>Orient</u>
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FEEDBACK CHART

Webster Branch Group Means

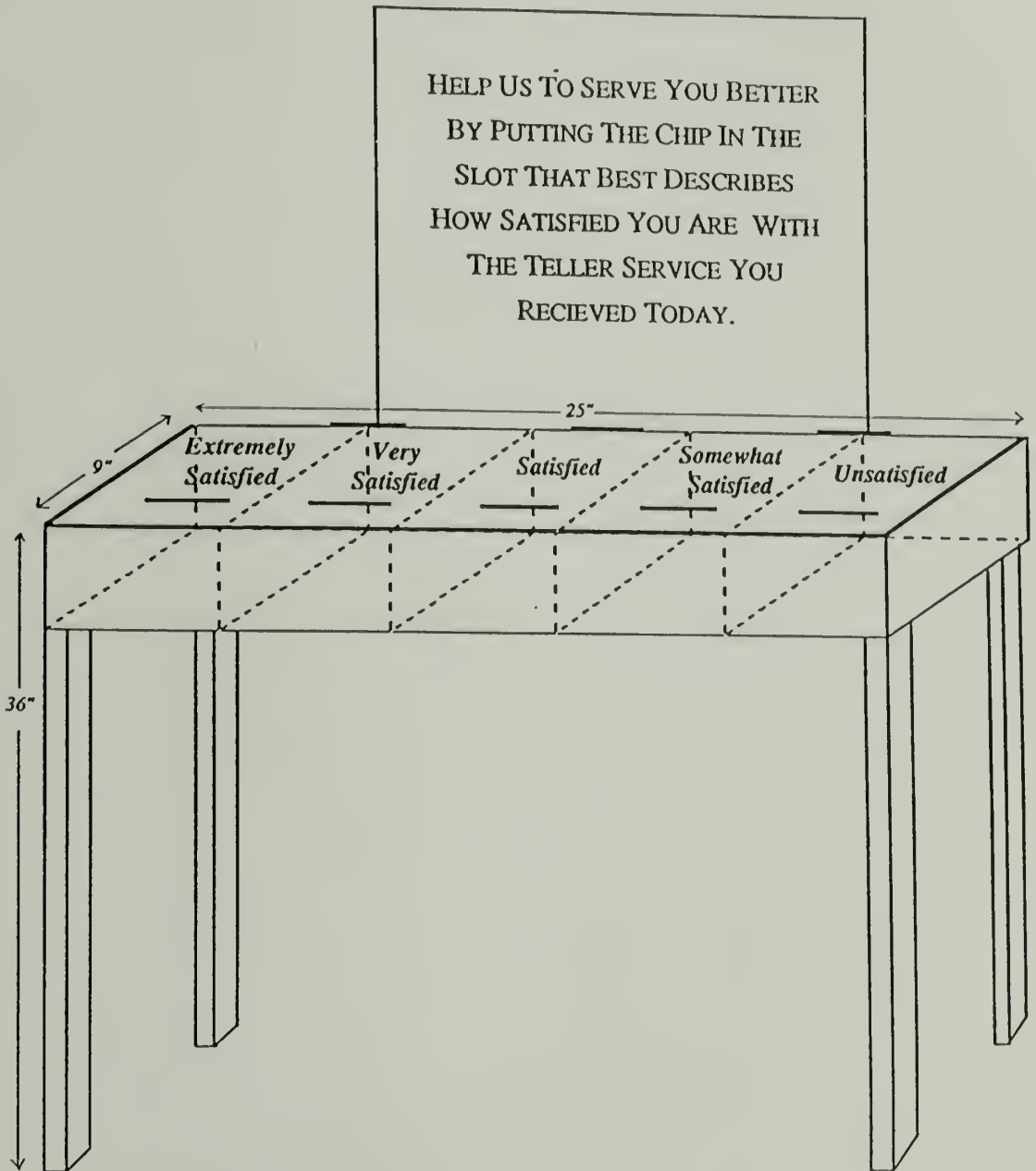


Webster Branch Customer Satisfaction



APPENDIX D

CHIP COLLECTION BOX



APPENDIX E

SCRIPT FOR FIRST FEEDBACK TO TELLERS

The first thing I want to say is how much I appreciate your cooperation and patience. Having someone watching you can be a bit disconcerting, especially when you don't know what they're looking at.

As you know, the study is designed to look at how customers respond to specific things. The only thing you didn't know was exactly what those specific things were. I'm glad that I can finally share that with you.

I've been interested in the importance of the very beginning of an interaction; specifically the 1st 3 secs. My question is whether customers report greater levels of satisfaction if tellers smile at, greet, and make eye contact with them in those first seconds. Anything that makes the customer more satisfied is beneficial to the bank, but it is also beneficial to the tellers. The happier the customers are, the less job stress you should experience. For instance, it is very difficult to be grouchy or nasty to someone who has just looked you in the eye, smiled at you and said "hello". Customers sometimes come to you already annoyed; they didn't like waiting in line or there was an error in their statement etc. You can't control those things, but if you could find an easy way to diffuse customers' irritation, you'd be less apt to get the brunt of their anger.

Now for my problem. You guys are already making your customers happy! You are making my job a lot more difficult. Let me show you what I mean.

[display feedback chart]

As you can see, 60% of your customers are extremely satisfied, 25% V. Sat., 13% sat. and only 1% somewhat and 1% unsatisfied. And you should know that we have a nearly 100% response rate from the customers. That is extraordinary and reflects their appreciation of you.

Your record is obviously excellent right now. My hope is that we can get the slope even sharper by increasing the rate of smiling, greeting and making eye contact in the first three seconds.

I have made individual graphs just like these group graphs for each of you. As you know, these are not and will not be shown to anyone else unless you wish them to be.

My plan is to come back more frequently over the next two weeks and give you updated feedback each time (depending upon the schedule with Colleen) and finish it up in the next few weeks.

APPENDIX F

CONSUMER SATISFACTION SURVEY

In planning future research, it would be very helpful for me to get some feedback from you about the study you participated in; what was good, what was bad, and what improvements I should make. Would you take a moment to answer the questions below? Thanks.

1. The duration of the study was
 - a) longer than I expected
 - b) about what I expected
 - c) shorter than I expected

2. How much time and effort was required of you as a participant in this study
 - a) a great deal
 - b) a little
 - c) very little

3. If the bank were to institute a similar token system to get customer satisfaction information in the future, how would you rate your recommendation for it's use for each of the following

1=highly recommend, 2=neutral, 3=do not recommend

- a) branch hours
 - b) platform service
 - c) teller service
 - d) branch/ATM location convenience
 - e) products offered
 - f) fees
-
4. On a scale of 1 to 5 with five being the most positive, how would you rate your reaction to each of the following components of the study
 - a) being observed
1 2 3 4 5
(-) (+)

 - b) handing out tokens
1 2 3 4 5

 - c) getting feedback about the group from the graphs
1 2 3 4 5

 - d) getting individual feedback from the graphs
1 2 3 4 5

- e) getting feedback from your manager
1 2 3 4 5

5. How interesting or useful did you find the following

a) customers ratings of the service you provide

- 1 (not interesting or useful)
2 (somewhat interesting or useful)
3 (interesting or useful) SOUND FAMILIAR??
4 (very interesting or useful)
5 (extremely interesting or useful)

b) information about your observed interactions with customers

- 1 (not interesting or useful)
2 (somewhat interesting or useful)
3 (interesting or useful)
4 (very interesting or useful)
5 (extremely interesting or useful)

6. How did the majority of your customers respond when given the tokens?

- a) seemed to enjoy it (smiled, made jokes, etc.)
b) didn't respond favorably or negatively
c) didn't like it (complained)

7. Was the explanation of the study given to you before you agreed to participate accurate and sufficient enough that you knew what to expect? If not, what needed to be better explained?

8. Any comments (good or bad) or suggestions you have would be very much appreciated.

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