AN EXPERIMENTAL INVESTIGATION OF THE INFLUENCES OF
SUPERFICIAL APPEARANCE CUES AND PRODUCT KNOWLEDGE ON
SERVICE PROVIDER EVALUATIONS OF CUSTOMERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
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By

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* * * * *

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ABSTRACT

In service-oriented firms, the face-to-face interaction between a service provider and a customer helps the customer form an impression of the organization. The customer's perception of service quality may have an impact on the customer's purchase behavior. The service provider may categorize the customer and that categorization may influence the manner in which the customer is treated. Two categorization variables examined in this research - the customer's superficial appearance and the customer's product knowledge.

Additionally, most service-oriented organizations provide some type of customer service orientation for their employees. This research also investigates what, if any, influence training interventions have on service provider performance.

In a single experiment with 180 undergraduate participants, three main effects and their interactions were tested - customer appearance, product knowledge, and service provider training. Participants played the role of a salesperson in a retail computer store and viewed a videotape of one of six randomly assigned customers and then completed survey instruments on (1) customer attitude evaluation, (2) open-ended recall of the customer's appearance, and (3) open-ended recall of the customer's needs.
The customer, a white male actor, was identical in all six conditions, but he was dressed in three different ways - in a suit, in casual clothing or in a tie-dyed T-shirt with a nose ring. Additionally, in each dress condition he either presented a script with a strong knowledge of the computer he wished to purchase or a script that demonstrated he knew little about computers. The training manipulation consisted of one-half of the sample reading a training primer on the importance of mindfulness in communication and not letting irrelevant information distract salespeople from the task at hand.

Results were generally not supportive of the hypotheses. The salesperson's attitude evaluation of the customer and the salesperson's recall of customer appearance and product need details were only moderately influenced by the experimental manipulations. Salesperson training had no effect. Hypotheses related to the interactions were not supported.

The theoretical implications of the findings are discussed. Methodological problems are also outlined and three new follow-up studies are suggested. In addition, some practical implications of the findings are outlined.
Dedicated to my Dad, Ralph Henry Schaffer, 1914-1988
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CHAPTER 1

REVIEW OF THE LITERATURE

In service-oriented firms, the face-to-face interaction between a service provider (employee) and a service receiver (customer) helps the customer form an initial impression of the organization (Burggraf, 1999; Sharma & Levy, 1995; Siehl, Bowen, & Pearson, 1992; Surprenant & Soloman, 1987); however, many service-oriented organizations are vulnerable to the negative effects of employees making incorrect categorizations of customers (Sharma & Levy, 1995). This research explores the extent to which (1) those categorizations are based on customers’ superficial appearance cues (2) those categorizations are based on cues from the customers’ knowledge of the product or service and (3) training has the potential for reducing the negative ramifications of such categorization.

In the case of an “intangible” service, like a car repair estimate, the service provider-customer interaction may be the primary basis upon which a customer draws conclusions about the quality of the organization’s services (Burggraf, 1999; Surprenant & Soloman, 1987) and there may be a high level of psychological involvement in the encounter (Siehl, Bowen, & Pearson, 1992). Even in cases where a more “tangible”
service is rendered, the effect of incorrect categorization is salient. While research has suggested that “reliability” is the primary basis upon which customers evaluate service quality (Parasuraman, Berry, & Zeithaml, 1991), if the customer is turned away because of a poor initial service provider-employee interaction, the organization may never get the chance to demonstrate the “reliability” component.

In fact, recent research has challenged the reliability argument. Customer service was found to be as important, or even more important than perceived product value in determining customer loyalty, the amount of money spent, and the range of products purchased (Leung, Li, and Au, 1998). In addition, customer perceptions of reliability may be strongly linked to the service provider-customer encounter (Surprenant & Soloman, 1987). Therefore, in face-to-face, service provider-customer encounters, service-oriented organizations ultimately depend on their employees to satisfy customer expectations.

This research focuses on a problem that has both applied and theoretical relevance. The research builds upon the work of researchers who have considered the influence of a target individual’s appearance in a variety of contexts; gender stereotyping (Deaux & Lewis, 1984; Freeman, 1987; Martin and Adams, 1999), stereotyping (Devine, 1989a, 1989b; Furnham & Dowsett, 1993; Jussim, Coleman, & Lerch, 1987; Karraker & Stern, 1990; Rozell, 1999; Weir & Fine-Davis, 1989), personnel selection (Jussim et al., 1987; Mack & Rainey, 1990; Morrow, 1990; Snyder, Berscheid, and Matwychuk, 1988), personnel evaluation (DeMeuse, 1987; Falkenberg, 1990), and marketing (Babin, Boles, & Darden, 1995; Bloch & Richins, 1992; Huddleston, 1985; Jasper & Klassen, 1990).
These research streams have not considered the specific domain of employees using appearance attributes to categorize customers. However, employee reactions to customer appearance is a relevant area for current research because individuals often use controllable aspects of personal appearance to send a message (Jacobs, 1992; Schlenker & Weigold, 1990) and individuals expend a great amount of effort to manage the impressions others form about them (Baumeister, Cooper and Skib, 1979; Baumeister and Jones, 1978; Gaes, Kalle, & Tedeschi, 1978; Schlenker, 1975). Individuals also develop mental images of targets based on physical stereotypes (Green and Ashmore, 1998). Some visual cues such as gender, race, and handicap status could be considered “appearance” cues; however, in this research they are not addressed because those issues constitute a separate and well-researched domain. Appearance cues in the context of the current research include superficial and discretionary items such as style of dress and jewelry.

In combination, these superficial appearance cues are sending strong messages, but the receiver may improperly decode the messages (Brownlow, 1992; Werner, Peterson-Lewis, & Brown, 1989). The service provider often categorizes the customer based on the appearance cues and uses that categorization when deciding on the appropriate type of interaction with the customer (Bodenhausen, 1990; Leong, Busch, & John, 1989). The style of communication employed and the type of service rendered because of the categorization could, if the categorization was incorrect, imprint a bad first impression on the customer and cost a sale (Sharma & Levy, 1995; Surprenant & Soloman, 1987). Thus, the first general research question is, “Do service providers
categorize customers by focusing on customers’ superficial appearance attributes?”

Since existing research can be generalized, the answer to this question is almost certainly yes; the application is simply an extension of existing research into a new context.

However, prior research has not provided specific, visual appearance cues for participants to access and potentially use to categorize target customers. The goals of the current study are to (1) replicate the research in the appearance/categorization literature in a new context, (2) investigate how specific appearance cues influence service provider attitude toward the customer and the recall of specific customer need information, and (3) examine the interaction effects of customer’s appearance and the customer’s knowledge of the product that is being discussed with the salesperson.

If customer appearance does significantly impact service provider performance, it is also important to consider how organizations can help service providers look beyond visual cues and provide service to the customer based on his or her unique needs and not based on irrelevant or incorrect categorizations. Thus, the key research question becomes:

1.1 Research question

Will a training intervention reduce the propensity for service providers to rely on appearance cues to guide their service to customers when the more salient cue of product knowledge is available?

Support for the question as stated comes from Babin, Boles, and Darden (1995) who summarize their research by stating, “Further research is needed directed at understanding how and when consumer’s information processing is altered in the
presence of a stereotypical service provider that evokes emotions not accompanying the exchange dyad in their absence” (p 80). By inverting “consumer” and “service provider” in the statement, the essence of the current study is supported.

For related evidence in support of the need for research and theory in the service-industry domain, consider that at the turn of the century only about 20 percent of American workers will actually build tangible products. Most other Americans will be working in service industries where direct interaction with customers is a day-to-day norm (Berry, 1993; Miles, 1993; “Employment in Industries,” 1998).

In addition, although service-based firms rely heavily on the actions and decisions of their employees, research in the area of customer service and satisfaction has focused almost exclusively on customer perceptions about the service experience (e.g., Babin, Boles, & Darden, 1995; Brown & Mitchell, 1993; Marini, 1993; Patterson, 1993; Schneider & Bowen, 1985; Steenkamp, 1990). Since service providers comprise one-half of the communicative process between a customer and a business, there is a need to examine service providers’ perceptions of customers.

Furthermore, although many service-oriented organizations do provide training and socialization routines to persuade employees to “treat customers right,” these companies often fail to recognize the importance of social perception and its affect on how employees categorize customers and subsequently deal with customers based on those categorizations. In this context, the academic literature has done little to increase the understanding of social perception beyond race and gender issues.
Finally, Arvey and Campion (1982) called for research that (1) provides fuller stimulus targets, (2) presents multiple stimulus persons so effects are not due to unique characteristics of a single stimulus person, and (3) uses within-subjects design. The current research explicitly addresses point one, and points two and three can be incorporated in future extensions of the current research.


Studies that consider service from a broader point of view include Ford’s (1995) research that considered the question; does courteous service communication indirectly influence customer discretionary behavior? Ford utilized observational data from 20 store clerks and 238 customers and follow-up surveys from 108 service provider-customer encounters in a structural equation model. Findings supported an argument that courteous behaviors are correlated to indirect customer discretionary behaviors. For example, as the store clerks observed in the research displayed more courtesy, customers provided more positive evaluations of service and were likely to recommend the store to
friends and to shop at the store even if other stores were closer. Overall, however, the study concluded that efforts to improve customer outcomes should extend beyond improving the service courtesy. In other words, just being friendly is not enough. Customer expectations must be met in order for the service encounter to be successful. This would add support to Parasuraman, Berry, and Zeithaml’s (1991) argument that “reliability” is the primary basis upon which consumers rate service quality.

These findings are similar to those of Siehl, Bowen, and Pearson (1992) who argue that service provider-customer encounters are “rites of integration” which have the objective of achieving a “temporary sense of closeness” between the parties in the encounter. The authors argue that there are appropriate levels of closeness depending upon the type of service situation. For instance, customers in fast food restaurants expect a low level of displayed emotion from the counter worker. In contrast, they expect a high level of compassion and sympathy from their medical doctor. Too wide of a variation away from expectation can make the customer dissatisfied with the service encounter. In other words, a fast food worker could be too friendly and too personal and actually cause the customer some discomfort.

Siehl, Bowen, and Pearson’s (1992) research followed the work of Surpremant and Soloman (1987) that used a videotape format to test subject responses to different types of bank loan officer service personalizations. The authors tested hypotheses including (1) service personalization is multidimensional and (2) all forms of personalization do not result in customer satisfaction. 150 undergraduate students watched videos of different bank loan officer approaches. Subjects then rated both the bank and the employee.
Results demonstrated that too much personalization in the bank officer's approach, when the product offering was very limited and standardized, created dissatisfaction in the minds of the "customers" (student subjects). In other words, mindless, scripted service provider communication is not effective if the communication does not match the level of service offered. In addition, if the service provider is to facilitate effective communication with the customer, then he or she must be focused on the customer's unique need communication and not be guided by what are perhaps misleading nonverbal cues.

One of the few studies looking at a service provider's view of customers comes from the retailing literature. Sharma and Levy (1995) developed a condensed list of customer categories based on salespeople's own descriptions of their customers. 229 salespeople from a single department store chain completed a questionnaire that asked them to describe all of the customer categories that they had encountered. The authors then combined the responses into eight overall categories. Survey respondents primarily listed customers as those (1) seeking sales assistance and (2) searching for specific products. Based on their responses, the authors then described the salespeople as falling into one of three distinct categorization styles: (1) need-based, (2) decision-styles, or (3) training-based categorizers.

Interestingly, the salespeople listed very few "negative" categories when describing their customer base. However, the authors acknowledge the possibility of self-elicitation problems with the research (i.e., salespeople knew that store management would expect them to view all customers in a positive manner and thus categorized them
using positive adjectives). In addition, this research failed to investigate or describe how
the salespeople grouped the customers. Appearance was not mentioned as a possible
causal variable.

1.2 Visual cues and categorization

Many common social categories are based on easily perceived or observed
physical attributes such as race, gender, and “attractiveness” (Ashmore & Del Boca,
1981; Brewer & Lui, 1989; Cherulnik, Torns, & Wilderman, 1990; Kalick, 1988;
McArthur, 1982; McCann, Ostrom, Tyner, & Mitchell, 1985; Taylor, Fiske, Ettcoff, &
Ruderman, 1978). Prior work on the influence of appearance has considered the role of
cognitive processing in explaining such phenomena as “halo effects” and “just like me
effects” (e.g., Jussim, Coleman, & Lerch, 1987; Weir & Fine-Davis, 1989). In research
on gender stereotyping, appearance has been shown to act equivalently to a gender label
(Deaux & Lewis, 1984; Freeman, 1987). In a customer service encounter, variation in
the service provider’s behavior may not be entirely random. Both customer age and
customer gender have been shown to influence the likelihood that a service provider
would say, “thank you” to a customer (Martin and Adams, 1999).

Research in many areas has identified target appearance as an influence on social
perception. The influence of appearance on stereotyping (Falkenberg, 1990; Furnham
and Dowsett, 1993; Karraker and Stern, 1990), personnel selection (Mack and Rainey,
1990; Morrow, 1990), and evaluation (Falkenberg, 1990) all suggest that physical
appearance has a significant impact on how people categorize and treat others.
DeMeuse (1987) reviewed and critiqued research that examined the effect of physical appearance cues on performance appraisal ratings. The review indicated that the effects of nonverbal cues on person perception in general, and performance appraisal in particular, are significant and varied. It also revealed that (1) the majority of literature about performance appraisal has exclusively examined demographic cues, (2) potential interactions of nonverbal behaviors have been ignored, and (3) most of the research is non-theoretical.

Clothing is an important component of self-generated mental images. In a recent experiment, college student participants demonstrated considerable agreement in the descriptions they provided for four female and four male “types.” The female types were housewife, whore, career woman, and feminist. The male types were business executive, ladies’ man, homosexual, and nerd. For example, the whore was described in a manner suggesting she must catch males’ attention and she was consistently portrayed as wearing sexually alluring clothing (Green and Ashmore, 1998).

Rafaeli and Pratt (1993) offer one of the few studies on employee dress and its influence on external evaluation. They argue that dress is an indicator of external culture and internal influences. These influences include employee compliance with role requirements, employee legitimization by non-employees, organizational image, and utilization of human resources. Rafaeli (1997) published a similar qualitative study that reveals dress is an attribute embedded in a variety of cognitive schemata that govern individuals’ comprehension and behavior at work.
Indeed, there is other evidence that clothing communicates strong and powerful messages (Burgoon & Saine, 1978; Conner, Nagasawa, & Peters, 1975; Douty, 1973; Forsythe, 1990; Forsythe, Drake, & Cox, 1985; Fussel, 1983; Ketcham, 1958; Laver, 1982). Dress also conveys meanings through attributes of the dress (color, material, style) and through the comparisons it enables. In a business context, dress exemplifies homogeneity in the organization and creates conspicuousness compared to non-organizational members (Rafaeli and Pratt, 1993; Rafaeli, 1997).

Organizational dress represents values of the organization, not necessarily the employee. "Contiguity" refers to associations that form when outsiders simultaneously encounter the organization and specific dress patterns (Bower & Hilgard, 1981). Research on contiguity suggests that such associations will be strengthened when dress is vivid (captures attention) and when it is consistent among all representatives of the organization (Bower & Hilgard, 1981; Rafaeli, 1997).

Mack and Rainey (1990) conducted two studies that investigated the effect of applicant grooming on simulated hiring decisions. Grooming was manipulated and attractiveness controlled by altering the clothing, hair, makeup, and jewelry of a female applicant. In one experiment, 54 college students were more likely to hire a well-groomed applicant than a poorly groomed applicant with the same qualifications. In another experiment, 124 students again preferred well-groomed applicants, and they also preferred highly-qualified applicants. In both studies, decision makers reported that the applicant's appearance was not an important factor in their decisions. Results suggest that it is very difficult for decision makers to avoid being influenced by grooming.
Many other studies have considered appearance as an independent variable. Bloch and Richins (1992) examined the functions of adornments and their linkage to physical attractiveness assessments. A number of influences were discussed as well as potential implications for marketing. Weir and Fine-Davis (1989) conducted a study of stereotyping based on physical appearance using photos of females with hair color as the independent variable. Males attributed significantly lower intelligence to blondes than to brunettes and redheads were rated as more temperamental. Bellizzi, Klassen, and Belonax (1989) reported the results of a role-playing procedure (with undergraduate participants) that found that a sales recruit described as extremely overweight, particularly a woman, was more likely to be assigned to an undesirable territory or not selected at all for an assignment. Heavy smokers were similarly treated, but to a lesser degree. Finally, LaTour, Henthorne, and Williams (1989) studied the role of initial impressions in cognitive formation toward retail salespeople. This study employed interviews of 229, 16-74 year-old white and 221, 11-64 year-old black mall shoppers. Each subject viewed a sketch of a retail salesperson and described the salesperson in the sketch using a bipolar adjective questionnaire. Black subjects placed more emphasis on the perceived understanding and friendliness of the salesperson, while white subjects were more concerned with the salesperson’s perceived qualifications.

Clearly, categorization is influenced by a variety of non-verbal cues. However, interventions to eliminate categorization based on visual cues are not being considered in the current research. One’s evaluation of others is often necessary and has even been posited as the prime dimension of comprehension (Vallacher & Wegner, 1985, 1987;
Wegner & Vallacher, 1986). Langer (1989) argues, “Categorizing is a fundamental and natural human activity. It is the way we come to know the world. Any attempt to eliminate bias by attempting to eliminate the perception of differences is doomed to failure” (p 154). The process of categorization is intrinsic to the perception process. It is a method of organizing and interpreting the vast amounts of information that is provided by our senses (Rosch & Mervis, 1975; Schneider, Hastorf, & Ellsworth, 1979).

Categorization is often functional and helpful in the service provider-customer encounter because of the cognitive shortcuts it provides (Ashforth & Humphrey, 1993; Bodenhausen, 1990). Salespeople use categorization knowledge to better organize, interpret, and evaluate sales situations, classify customers, and select appropriate sales strategies (Leong, Busch, & John, 1989). Structure is established through categories that enable service providers to see the world and experiences as being more stable.

For salespeople, categorizing customers often allows them to better structure the selling process. In a sales environment, rather than developing a unique sales strategy for each customer, “effective” salespeople are expected to classify customers into groups and to use a common strategy for each group (Sharma & Levy, 1995).

Salespeople who practice adaptive selling to a large extent are high performers who change their ‘colors’ to match the selling environment (Fine & Schumann 1992; Leong, Busch, & John, 1989; Sujan, Weitz, & Kumar 1994; Weitz, Sujan, & Sujan, 1986). These salespeople understand customer needs, select the best sales strategies, and then suggest products or services that will satisfy their customers’ needs. Thus, information obtained on the categorization structures of higher performers can be used in
the selection and training of other salespeople. In addition, examining salespeople’s
categorization strategies aids retailers in identifying those salespeople whose categories
are not conducive to good customer service, so they can be provided with additional
training (Sharma & Levy, 1995).

Although much of the literature presents categorization and stereotyping in a
positive light, such as the use of cognitive shortcuts to get to relevant information
(Ashforth & Humphrey, 1995; Bodenhausen, 1990), it is clear from other research that
incorrect categorization and stereotyping have negative consequences as well.
Categorization in many service contexts should be based on customers’ unique needs and
not on some aggregation of past experiences with different customers (Surprenant &
Solomon, 1987). This is especially relevant in intangible services and in situations where
there is a larger degree of ambiguity (Siehl, Bowen, & Pearson, 1992). In most cases,
organizations should want salespeople to carefully assess customers’ needs and provide
the appropriate assistance based upon those needs.

Some research findings suggest that stereotype activation limits information
processing and leads to a reliance on less analytic and more heuristic types of
mechanisms (Babin, Boles, & Darden, 1995; Sujan, Bettman, & Sujan, 1986). Greater
reliance on these non-analytic mechanisms is associated with more frequent and
numerous stereotype-based biases (Rothbart & John, 1985; Rothbart, Sriram, & Davis-
Stitt, 1996).

Salespeople that utilize negative category descriptions are likely to provide poor
customer service. When salespeople have formed a negative attitude toward a customer,
customer service and sales performance are expected to suffer. This problem is exacerbated since people sometimes classify customers with very little information. For example, a salesperson may suggest only inexpensive items to a wealthy but poorly dressed customer even though the customer is able to buy more expensive items. Thus, it is important to examine the categories used in the sales task (Sharma & Levy, 1995).

1.3 Example of a “faulty” encounter between a service provider and a customer

Service provider-customer interactions involve much more than an exchange of information between two people. The communication process begins as soon as the service provider sees the employee and the initial visual cues set the stage for any verbal communication that follows (Fichten, Tagalakis, Judd, Wright, & et al., 1992). According to Huddleston (1985), listeners produce beliefs and/or attitudes before they exhibit behaviors to comply with a speaker’s request. Several studies have demonstrated that receivers make some cognitive evaluation of incoming symbols before any causal assignments are made between verbal stimuli and subsequent behaviors (Hovland, Janis, & Kelly, 1953; Hovland, Harvey, & Sherif, 1957; Hovland & Janis, 1959; Sherif & Hovland, 1961).

For example, a customer who is wearing a tailored suit and carrying a leather briefcase takes a late-model Lexus to an automotive service center. The service provider (automobile technician) views the customer stepping out of the car and may categorize the customer as a professional who has little knowledge of automobiles. This
categorization is simply based on the many appearance cues provided by the customer (Babin, Boles, & Darden, 1995). Perhaps the type of car, manner of dress, quality/brand name of clothes, briefcase, and hairstyle are salient visual cues.

The communication process will move on to a specific verbal exchange as the service provider finds out what the customer needs. Continuing the example, the technician may query the customer about the car using very general terminology purposely avoiding automotive jargon. The technician may also assume that what the customer says needs to be taken lightly because the “professional” customer “obviously” does not have the automotive expertise that the technician possesses.

When the interaction between the service provider and customer is complete, the customer walks away with an impression of both the service provider and the organization. This impression can, of course, be positive or negative, and it is based to a large extent on how the customer perceives the treatment he or she received from the employee. To complete the example, the customer may in fact be an automotive engineer and possess a great deal of knowledge about cars. Furthermore, the customer may question the technician’s knowledge and ability because of the non-technical language the technician is using.

Ultimately, the customer may leave the shop with a negative first impression, communicate dissatisfaction to friends, or even take the car to another service center. This example demonstrates the potential for negative customer reactions when incorrect assumptions are made in face-to-face, service provider-customer interactions.
Although service providers may incorrectly categorize customers, presumably they do not do so on purpose. It seems reasonable to assume that most workers want their companies to succeed and this suggests that incorrect categorization and improper treatment of customers is not necessarily an intentional action. The culprit may be that some service providers categorize customers before the verbal communication process begins. The service providers may then allow that categorization to bias the subsequent processing of relevant information.

1.4 Schemata and customer categorizations

Schemata may be defined as cognitive structures that represent knowledge about a concept or type of stimulus, including attributes and the relationships among those attributes (Brewer & Nakamura, 1984; Fiske & Linville, 1980; Hastie, 1981; Higgins & Bargh, 1987; Rumelhart & Ortony, 1977; Taylor & Crocker, 1981). A schema typically develops from encounters with specific examples (Fiske & Taylor, 1991).

However, before a person can apply schematic prior knowledge to social perception, the object (customer in this case) must be classified as filling a particular role on the basis of certain characteristics (Fiske & Taylor, 1991). Schemata facilitate what is called top-down, conceptually driven, or theory-driven processes, which simply means processes heavily influenced by one’s organized prior knowledge, as opposed to processes that are more bottom-up or data-driven (Abelson, 1981; Bobrow & Norman, 1975; Fiske & Taylor, 1991; Rumelhart & Ortony, 1977; White & Harkins, 1994).
Schemata are ways of considering expectations and their effects. Information gathered by the service provider early in the employee-customer interaction is likely to cue relevant schemata (Fiske & Taylor, 1991) and aid in organizing subsequent information (Jones & Goethals, 1972). Park and Hastie (1987) however might argue against this supposition. They found that estimates of a target individual’s perceived variability from the group were constructed and stored on-line rather than from a retrieved set of category exemplars.

Other research that is supportive of Fiske and Taylor’s/Jones and Goethals’ view and the current study includes Cherulnik, Turms, & Wilderman (1990) who investigated attribution in leader emergence. Photographs of male and female leaders and non-leaders in a high school senior class were found to elicit different and appropriate attributions of leadership status and related personality traits from naïve observers. These findings were taken as indicative of the potential importance of schema-based attributions in leader emergence and the role of appearance cues in the attribution process.

1.5 Guiding proposition

Service providers use superficial, customer-controllable appearance cues to categorize customer targets.

As stated, a categorization made by a service provider may be erroneous because the service provider has focused on visual cues that are totally unrelated to customers’ needs. When this occurs, the customers may be offended by the perceived lack of respect they are provided by the service provider. In the example cited earlier, the automotive technician expected a customer wearing a suit and driving an expensive car (specific
appearance attributes) to possess little knowledge about automobiles. The technician also expected the customer to be unfamiliar with automotive jargon. Thus, the technician used general terminology to communicate with that customer (and presumably any customer) who activated that particular schema.

Smith & Zarate (1992) describe how representations of specific individuals influence judgments about persons and groups. Social and motivational factors, including perceiver self-schemata, social context, and in-group/out-group dynamics, influence social judgment by affecting perceivers' attention to dimensions.

One specific type of schema that is salient in the context of service provider-customer interactions is person schemata. Person schemata contain individuals' understanding of the psychology of others, focusing on their traits. Schemata about people and about people in certain situations aid in drawing inferences about others. People tend to recall schema-relevant information and that process helps individuals to understand new information (Fiske & Taylor, 1991). Specifically, person schemata are frequently attributed on the basis of physical features (Secord, 1958) and visual cues generally are salient in person perception (Fiske & Cox, 1979, Schneider, Hastorf, & Ellsworth, 1979).

Fiske & Taylor (1991) argue that once schemata are well established, people have the ability to notice and use inconsistent information in impression formation. Similarly, Eagly and Chaiken (1993) argue that the less information possessed by an individual, the greater the change induced by any new piece of information. Because behavior is presumably under the control of the attitudes held at the time of the decision to behave,
unstable attitudes are less predictive of later behavior. Perhaps attitudes backed by more information are more readily accessed from memory, and, as Fazio (1989b) has shown, more accessible attitudes are more highly correlated with behavior.

In contrast, others have argued that once a person is categorized, the stereotypical content of the schema is likely to be applied regardless of how similar, in reality, the individual is to the typical category member (Secord, 1959; Secord, Bevan, & Katz, 1956). Several studies have suggested that individuals may utilize a set of response mechanisms beyond the cognitive (Moreland & Zajonc, 1977; Wilson, 1979; Zajonc, 1980; Zajonc & Markus, 1982). These studies noted numerous circumstances where people would respond emotionally but never be quite sure what influenced their actions. These latter arguments and examples support the contention that some service providers may be unable to “get past” the initial appearance cues and categorization and appropriately modify their interaction with the customer.

People rely on social schemata daily to organize knowledge and when thinking about members of groups. For example, an individual attempts to learn a stranger’s occupation (activating a schema) almost immediately on conversing with him or her because it helps the individual understand the stranger and form a set of expectations about him or her (Gudykunst, 1993). Schema activation subsequently alters the information environment and can affect the information conveyed as well as its coding and recall. Consumer researchers and psychologists, therefore, have an interest in understanding these schematically triggered effects because they frequently frame social exchanges (Babin, Boles, and Darden, 1995).
1.6 The customer as a member of the service provider’s in-group or an out-group

A service provider’s expectations about the appropriate manner of interaction involve anticipation and predictions about how others will communicate. These expectations are derived from social norms and strangers’ personal characteristics of which the service provider is aware. The service provider’s culture and ethnicity provide guidelines for appropriate behavior and the expectations to use in judging competent communication (Gudykunst, 1993). According to Ashforth and Humphrey (1995), social psychologists generally agree that stereotypes affect information processing, and Gudykunst (1993) argues that one person can change a relationship based on how that person chooses to communicate with a partner.

Social norms, rules, and culture may lead the service provider to label a customer as a member of an in-group or out-group. Brewer (1988) found that people tend to be more favorable to members of their in-groups rather than other out-groups. In addition, members of out-groups tend to be seen as homogeneous and perceptions of group homogeneity have implications for perceptions of individual group members (Brewer, 1988; Brewer & Kramer, 1985; Ostrom & Sedikides, 1992). A need for predictability in the service encounter can lead people to place all out-group members in a single category and the most readily accessible exemplars for out-group members may be those attributes that are most prototypical. These prototypical attributes could be superficial appearance attributes.
In addition to cultural norms and rules, inter-group cognitions create expectations and influence our preconscious or automatic thoughts regarding our affective reactions to strangers. The important inter-group cognitions, according to Stephan and Stephan (1985), are our knowledge of the stranger’s culture, our stereotypes, our prejudices, and our perceptions of in-group/out-group differences.

In the typical in-group/out-group situation an in-group member would be most likely to focalize the out-group; hence, the difference between the out-group and the general population is exaggerated, and the differences among out-group members are minimized (Wilder, 1977, 1978). This tendency to see the target as a distinct unit is evident in the perception of an individual as well. Ickes and Gonzalez (1978), for example, argue that self-focused attention makes individuals more likely to describe themselves in “individuated” terms, while Vallacher and Wegner (1989) found that increased attention to others led observers to make more fine discriminations among them.

As a summary, figure 1.1 on the next page presents a simple conceptual model of the relationships that have been described in the literature review. This model will be further expanded upon in chapter two as the hypotheses are presented.
<table>
<thead>
<tr>
<th>Interaction</th>
<th>Evaluation</th>
<th>Categorization</th>
<th>Service Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>The service provider sees and hears the customer</td>
<td>The service provider sees and evaluates the customer's appearance; the service provider hears and evaluates the customer's product knowledge</td>
<td>The service provider categorizes the customer as an in-group member or an out-group member on both dimensions: appearance and product knowledge</td>
<td>The service provider forms an overall attitude toward the customer and processes, depending upon categorization, the specific needs requested by the customer</td>
</tr>
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</table>

Figure 1.1: A four-step model for customer evaluation and service delivery
CHAPTER 2

HYPOTHESES

Since service providers almost certainly categorize customers as in-group or out-group members (Babin, Boles, and Darden, 1995; Rafaeli, 1989), it is important to ascertain how this affects the service provider’s attitude toward the customer. A positive or negative attitude may result in positive or negative service provided to the customer. Evaluation (defined as the attribution of some degree of goodness or badness to a person) is a critical feature of attitudes, and evaluative responses are those that express approval or disapproval, favor or disfavor, liking or disliking, approach or avoidance, attraction or aversion, or similar reactions (Eagly & Chaiken, 1993). In research on meaning (Osgood, Suci, & Tannenbaum, 1957), the dimension typically accounting for the largest proportion of the total variance was labeled ‘evaluation’ because it related very closely to ratings on scales such as good/bad and valuable/worthless.

2.1 The service provider’s in-group bias

In-group members are generally biased in favor of the in-group over the out-group even when the criteria for categorizing are minimal or arbitrary (Brewer, 1985; Tajfel, Billig, Bundy, & Flement, 1971). Thus, in the context of the current research,
service providers who categorize customers as similar in appearance to themselves will make more positive attitude evaluations of those customers. Customers who are not categorized as similar in appearance will receive relatively more negative attitude evaluations because those customers will be categorized as out-group members.

2.1.1 Hypothesis 1

There is a positive relationship between a service provider’s perception of similarity to a customer and the service provider’s attitude evaluation of the customer.

2.2 The service provider’s ability to recall the customer’s needs

The less knowledge we have of strangers’ groups, the more anxiety we will experience (Gudykunst, 1983). Negative cognitive expectations (e.g., ethnocentrism, negative stereotypes, prejudice) lead to uncertainty and inter-group anxiety. Positive expectations (e.g., positive stereotypes), in contrast, help us reduce uncertainty and anxiety (Ostrom & Sedikides, 1992). Positive expectations lead us to behave in a positive manner toward strangers (Brewer, 1985; Hamilton, Sherman, & Ruvolo, 1990; Tajfel, 1981).

Cognitively, inter-group anxiety leads to biases in information processing (Gudykunst & Hammer, 1988). The more anxious we are, the more likely we will attune to the behaviors we expected to see (e.g., those based on our stereotypes) and the more likely we are to confirm those expectations (i.e., we will not attune to behavior that is inconsistent with our expectations) (Brewer & Weber, 1994). The greater our anxiety, the
more we will be self-aware and concerned with our self-esteem. When we are highly anxious we, therefore, try to make our own group look good in comparison to other groups (Crocker & Luhtanen, 1990; Judd & Park, 1988).

Jussim, Coleman & Lereh (1987) argue, based on Complexity-Extremity Theory (Linville, 1982; Linville & Jones, 1980) that there is more contact with in-group members so the out-group is seen as more homogeneous while in-group members are seen as more heterogeneous. There are more dimensions for evaluation and more complexity and diversity in evaluations of in-group members. There are fewer evaluation dimensions for out-group members.

Research supportive of this view includes Babin, Boles, and Darden’s (1995) work that examined salesperson stereotypes by presenting written car sales scenarios to 163 undergraduate marketing student subjects. Rather than just verbal cues, salesperson characteristics were varied to evoke different schemata. According to the authors, this methodology is accepted widely in the social cognition literature (Gilbert & Hixon, 1991; Zarate & Smith, 1990). In this research the authors purposely used relatively “neutral” or not overly negative appearance cues such as a dated necktie, constant smiling, overweight, and thinning hair. While superficial, these cues are not blatantly obvious and for the most part they are not controllable by the target individual. A potential weakness of the 1995 study is that the subjects simply read scenarios and then were asked to recall person and product information based on what they had read. No actual visual cues were presented, only written descriptions of the verbal cues.
Nevertheless, the study’s findings suggested that stereotypes influence consumer emotions and mediate the relationship between stereotype activation and subsequent consumer cognitions. Consistent with prior evidence suggesting that schema-evoked emotions create significant processing demands (Stroessner, Hamilton, & Mackie, 1992), schema activation was associated with changes in emotions that decreased analytic processing as indicated by the ratio of product-to-person recall. The subjects recalled more person information (relative to product information) when the salesperson was very typical or very atypical. These results suggest that schema-based emotions are important variables that need to be considered in potential explanations of behavioral and cognitive changes associated with different stereotypes.

Interestingly, Chaiken (1979) found that physically attractive persuaders were considered more fluent than unattractive counterparts. Therefore, a logical argument is that if the appearance cues activate a “similar-to-me” schema, and the customer is considered in the service provider’s in-group, then the service provider will focus on the customer’s needs and attempt to assist that in-group member to as great an extent as possible.

In the context of the current research, once a service provider’s stereotype of an out-group customer has been activated by superficial appearance cues, there is a reduction in the service provider’s processing of customer need information. Additionally, there will be a subsequent increase in the service provider’s processing of the customer’s appearance information to confirm the initial stereotype. Likewise, a
customer who is categorized as similar in appearance will be categorized by the service provider into an in-group and the service provider will attune more to the customer’s unique needs.

2.2.1 Hypothesis 2a

There is a positive relationship between a service provider’s perception of similarity to a customer and the amount of product need information recalled by the service provider.

2.2.2 Hypothesis 2b

There is a negative relationship between a service provider’s perception of similarity to a customer and the amount of customer appearance information recalled by the service provider.

2.3 Customer product knowledge as an influence on attitude and need recall

Petty, Cacioppo, Sedikides, and Strathman (1988) outline how high, low, and moderate likelihoods of elaboration of persuasive arguments affect the target’s response in accepting or further scrutinizing the arguments themselves. High likelihoods are characterized by high personal relevance, knowledge, simple message and no distractions. Furthermore, argument quality becomes a more important determinant of attitudes as issue involvement increases (Johnson & Eagly, 1989, 1990; Petty & Cacioppo, 1979, 1990) and argument quality has been a central independent variable in many applications of Petty and Cacioppo’s (1981) Elaboration Likelihood Model (ELM) (e.g., Huddleston, 1985).
Consistent with predictions from the ELM, McCrosky (1972) found that evidence within an argument had an insignificant impact on immediate persuasion, but the quality of the supporting material for the speaker's position enhanced long-term attitude change. Similarly, three studies (Hovland, Janis, and Kelly, 1953; McCroskey, 1966; Miller, 1964) found that while the effects of source characteristics (including dress) were temporary, the composition of the message could be recalled long after details about the speaker were forgotten. An important consideration for the current research is that the typical service provider-customer interaction begins and ends within a short period of time. Therefore, temporary, short-term evaluations and attitude formations may be more relevant than long-term considerations.

Overall, other research on argument quality has provided varied results. Pentony (1989) examined the effects of level of involvement, number of arguments, and argument quality on a participant group comprised of 33 college students. Participants read a booklet that outlined arguments for choosing various final examination topics. Each booklet contained four written persuasions and either two or six good or bad arguments for each topic. Participants voted on four final exam topics either for the current year (high involvement) or next year's class (low involvement). The good arguments were more persuasive than the bad arguments, but there were no significant interactions between involvement and persuasiveness.

In a bit of a contrast, Kuykendall and Keating (1990) replicating Worth and Mackie's (1987) work failed to find an argument quality effect on some participants' attitudes. In their study, 120 undergraduate students read a magazine article to induce a
positive, neutral, or negative state. Participants then read and evaluated a communication for which argument quality was manipulated. For subjects in a positive mood, argument quality failed to differentially influence attitudes. In contrast, attitudes were more favorable following stronger arguments for participants induced to a negative or neutral mood. These findings suggest that information processing is reduced by positive, but not negative or neutral moods. The authors conclude by arguing that selective processing of communication is a means of mood management.

Message repetition has also been manipulated in argument quality research. Petty and Cacioppo (1989) tested the hypothesis that responses to messages containing strong versus weak arguments would be affected differentially by a moderate level of message repetition. The authors’ analysis suggests that moderate levels of message repetition could increase or decrease persuasion by enhancing argument scrutiny.

Petty and Cacioppo also conducted two studies manipulating the involvement variable when considering argument quality (1981, 1984). Results from the 1981 study suggest that an increase in involvement is associated with an increase in the perceived importance of message arguments because participants were motivated to hold defensible positions. The 1984 study tested a hypothesis that the number of arguments in a message could affect agreement with a communication by serving as a simple acceptance cue when personal involvement was low but could affect agreement by enhancing issue-relevant thinking when personal involvement was high. This methodology, in addition to manipulating the personal relevance of the communication topic, also varied both the number and quality of the arguments in the message.
In their 1984 pilot study, low and high relevance were tested. In the low relevance condition participants showed more agreement in response to a message containing six arguments (three strong and three weak) than to messages containing either three strong or three weak arguments. Under high involvement, however, the six-argument message did not increase agreement over the message containing only three strong arguments. In a larger experiment, 168 undergraduate students received either three or nine arguments that were either all cogent or all false under conditions of either high or low involvement. The manipulation of argument number had a greater impact under low than under high involvement, but the manipulation of argument quality had a greater impact under high rather than low involvement. The authors conclude that increasing the number of arguments in a message could affect persuasion whether or not the actual content of the arguments was scrutinized.

A study with a direct implication for the current research, through its inclusion of source credibility, is work by Stoltenberg and Davis (1988). This research investigated the effects of individuals’ attitudinal and behavioral responses to a personally involving advocacy position. 120 undergraduates were questioned regarding the addition of some non-credit courses to their curriculum. Findings support a hypothesis that argument quality had a greater impact on the indices of attitudes and behaviors when the recommendation and supportive arguments were attributed to a source high rather than low in credibility. The authors conclude that credibility has different effects depending on the likelihood that an individual will think about and elaborate on the information provided by the communicator.
Although not explicitly linked to the current research, a sales position could be, in some respects, linked to a counseling interaction. Heesacker (1986) conducted a study linking counseling to the ELM. Heesacker’s research involved 254 undergraduate participants who were exposed to a pretreatment intervention composed of strongly- or weakly-reasoned arguments by a counselor of high or low credibility promoting participation in a student group. Results show that significantly more favorable attitudes toward counseling occurred as participants’ ego involvement increased and as intervention quality improved. The counselor’s credibility significantly affected the degree to which participants’ attitudes reflected argument quality differences.

In terms of an individual’s attitude toward a target, another study by Petty, Cacioppo, and Schumann (1983) is relevant. 160 undergraduates expressed their attitudes about a product after being exposed to a magazine ad under conditions of either high or low product involvement. The ad contained either strong or weak arguments for the product and featured either prominent sports celebrities or average citizens as endorsers. The manipulation of argument quality had a greater impact on attitudes under high than low involvement, but the manipulation of product endorser had a greater impact under low than high involvement. Huddleston (1985) observed the same results using similar interventions on a student participant sample.

Of course, in the typical service provider-customer interaction, it is unlikely that either individual in the dyad would be a prominent celebrity. Thus, the service provider will look for other cues as to the source credibility of the customer (and vice versa). In terms of involvement, both the service provider and the customer would most likely be
moderately or highly involved in the interaction since the service provider is dependent on successful customer interactions for his or her livelihood and the customer is presumably purchasing a good or service for a personal application.

In a service provider-customer exchange, the service provider will process and retain the needs of a customer presenting a high level of product knowledge because the customer’s knowledge is a source of credibility. Furthermore, the communication of needs and product knowledge may induce a service provider to categorize that customer into an in-group and lead the service provider to attempt to serve the customer with extra attention. In contrast, a customer presenting a low level of product knowledge will not be viewed by the service provider as a credible source and may be categorized into an out-group. Thus, for a customer presenting a low level of product knowledge, the service provider will focus on the customer’s appearance cues to help determine what the customer desires.

2.3.1 Hypothesis 3

Service providers will recall more details about a customer’s needs, compared to details about the same customer’s appearance, when the customer presents a high level of product knowledge. Conversely, service providers will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when the customer presents a low level of product knowledge.

As stated, in-group norms and similarity are also important in the formation of attitudes. Research performed in Europe by Van Knippenberg and Wilke (1992) examined the impact of the prototypicality of arguments on judgments of argument
quality and attitude change. In the first of two experiments, 95 psychology undergraduates were exposed to both pro- and contra-arguments, one set of which was allegedly prototypical of in-group attitudes. In the second experiment, 139 undergraduate law students were exposed to either prototypical or aprototypical pro- or contra-arguments allegedly originating from in- or out-groups. Conformity to in-group norms was observed in both studies. However, in the first study prototypical in-group arguments elicited higher quality ratings.

Berscheid (1966) observed that a significant amount of attitude change occurred when people believed that the persuaders’ opinions were similar to their own on the communication topic. In terms of the current research, those customers who have been categorized into a service provider’s in-group will possess and display a similar grasp of product or service knowledge and will be able to communicate that understanding to the service provider using the appropriate technical jargon. Thus, those customers will be viewed as “similar-to-me” based on knowledge alone and will be categorized into an in-group.

2.3.2 Hypothesis 4

There is a positive relationship between the level of product knowledge expressed in a customer’s request and a service provider’s attitude evaluation of the customer.

2.4 The interactions between appearance and product knowledge

Building on the research and hypotheses already presented, a consideration of the interaction between a “similar” customer and strong product knowledge appears a fairly straightforward extrapolation. The service provider would likely categorize a customer
with similar appearance attributes and making a strong argument into his or her in-group and attempt to process the customer's needs and provide as much assistance as possible.

However, a consideration of the ELM produces a dilemma when trying to predict a receiver's reactions to messages containing strong arguments (Huddleston, 1985). In one circumstance, receivers are projected by the model to be most concerned with the message's content and are subsequently expected to be less influenced by the speaker's superficial cues. As long as the speech employs strong arguments, the ELM predicts the amount of attitude change should not be affected by the speaker's nonverbal actions, dress, or any other potentially persuasive cues. However, if strong arguments are a sufficient inducement to counter-arguing, then speakers who fail to exhibit the stereotypical appearance cues the listener expects may provoke the listener to question the strength of the arguments compared to a situation where the speaker had conformed with situational norms.

A review of specific research studies may help resolve the apparent dilemma. Puckett, Petty, Cacioppo, and Fischer (1983) studied the relative impact of old age and attractiveness stereotypes on persuasion. In this study 110 male and 110 female undergraduate student participants read different essays whose content and presentation formed a 2 by 2 by 2 matrix. The essays contained either sound or false arguments that were attributed either to young or old and socially attractive or unattractive authors. Results found that participant evaluations of the essay itself were affected only by the quality of the arguments presented. Argument quality and attractiveness interacted to determine perceptions of the author and opinions on the position advocated in the essay.
Attractive authors were rated higher and were more persuasive than unattractive authors when the essay was strong, but were derogated and unpersuasive relative to unattractive authors when the essay was weak.

Graves and Powell (1995) examined the affect of sex similarity on recruiters’ evaluations of applicants in 476 campus interviews and whether perceived similarity mediated this effect. Although argument quality was not manipulated, the results provide some guidance for the current research. 53 female recruiters interviewed female candidates and 49 interviewed male candidates. 170 male recruiters interviewed female applicants and 204 interviewed male applicants. Results reveal complex effects of sex similarity on recruiters’ decision processes. Perceived similarity mediated the effect of sex similarity on female recruiters’ assessments of applicants’ qualifications. Unexpectedly, female recruiters saw male applicants as more similar to themselves and more qualified than female applicants. For male recruiters, interview outcomes were not affected by sex similarity. The authors posit that Social Identity Theory (e.g., Tajfel & Turner, 1979; Turner, 1987), which suggests that the status associated with demographic characteristics may influence the nature of demographic similarity effects, provides a possible explanation for these results.

In the context of the current study, the main effect of a high level of product knowledge is expected to lead a service provider to process and recall more product need information. Likewise, the main effect of similarity in the appearance variable is expected to lead a service provider to process and recall more product need information. Thus, due to this interactive effect:
2.4.1 Hypothesis 5a

A service provider will recall more details about a customer’s needs, compared to details about the same customer’s appearance, when (1) the customer presents a high level of product knowledge and (2) the service provider perceives the customer to be an in-group member.

In terms of attitude evaluation, research based on the similarity-attraction hypothesis (e.g., Berscheid, 1985; Byrne, 1971; Byrne, Clore, & Smeaton, 1986) suggests that people form a more positive attitude evaluation of those who are similar compared to those that are different. Jussim, Coleman, and Lerch (1987) outline the bases of Assumed Characteristics Theory (Bayton, McAllister, & Hamer, 1956; Feldman, 1972, Smedley & Bayton, 1972) that is based on stereotypes and posits that people generally assume that in-groups have more favorable characteristics (values, traits) than out-groups. In Jussim, Coleman, and Lerch’s research, background characteristics had a strong influence on this evaluation of in-group and out-groups.

In Brownlow’s (1992) research, 128 undergraduates (64 male and 64 female) viewed either a baby-faced or mature-faced female speaker delivering a persuasive communication and received information designed to make the speaker seem either untrustworthy or inexpert. Subjects indicated how much they agreed with the speaker’s position and completed other measures concerning her appearance and their perceptions of her speech. Baby-faced speakers induced more agreement with their position than did mature-faced speakers when trustworthiness was in question. Mature-faced speakers produced more attitude agreement as compared to baby-faced speakers when expertise
was questioned. However, reported results from this study are somewhat at odds with the current hypotheses; attitude change was not related to perceived likability, age, attractiveness, or communication skills of the speakers. Nevertheless, the combination of source credibility, similar-to-me effects, and in-group effects leads to the supposition in the current study that:

2.4.2 Hypothesis 5b

A service provider will report the most positive attitude evaluations for customers who (1) have high levels of product knowledge and when (2) the service provider perceives the customer to be an in-group member.

Jussim, Coleman, and Lerch (1987) examined an application of Expectancy Violation Theory (Kelly, 1971) that argues that people who violate a stereotype are evaluated even more extremely (positively or negatively) than would be expected. In this research, participants viewed static video slides and listened to audiotapes. The participants then rated how much they would like to work with the target person. Results showed that, for example, when evaluated by a white participant, an upper-class black target rated even more favorably than an upper class white target due to “violation” of expectations. The variable dimensions analyzed in this research were upper-class and lower class appearance, race, & dialect.

Lui and Brewer (1983) conducted a study in which 25 undergraduate participants viewed slides and read descriptive statements portraying nine stimulus characters, using impression-formation instructions. A subsequent recognition task required participants to choose which one of a pair of stimulus slides had initially been described by the
statement given as a cue for that trial. Results indicate that memory for consistent information is category-based but that memory for category-inconsistent information is highly individuated.

Sujan, Bettman, and Sujan (1986) conducted an experiment in which research subjects processing product information given by a salesperson whose opening statement did not match schema-based expectations showed increased product (relative to person) recall. The authors argued that when a salesperson’s opening statement matches expectations, the categorization supplies an easily accessible reference available for consumer decision-making, and consequently, consumers do not engage in analytic processing of product information. This reasoning leads to the authors’ prediction that a matching salesperson (active stereotype) reduces processing of product information.

In contrast, McCrosky (1972) observed that speakers were more likely to gain a receiver’s compliance with a message based upon their looks and delivery characteristics than by the words that comprised the message. Despite the inconsistencies in research outcomes, the majority of evidence seems to suggest that a violation of expectations will result in a more negative evaluation of the customer. Thus:

2.4.3 Hypothesis 6a

A service provider will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when (1) the service provider perceives the customer as an in-group member, and (2) the customer presents a low level of product knowledge.
2.4.4 Hypothesis 6b

A service provider will negatively evaluate a customer who (1) is perceived as an in-group member, and (2) presents a low level of product knowledge.

As discussed, positive comparisons of an in-group with an out-group lead to high prestige and negative comparisons lead to low prestige. The more we rely on group memberships for self-esteem, the more we will define encounters in inter-group terms (Brewer & Weber, 1994; Crocker & Luhtanen, 1990; Tajfel, 1981; Tajfel & Turner, 1979; Wills, 1991). However, when strangers are perceived to be atypical members of their group, we do not treat them based on their group membership, we see them as “exceptions to the rule.” In this case, communication is influenced by personal identities, not by social identities. When communication is based on personal identities, people use information about the individual stranger with whom they are communicating to reduce uncertainty (Gudykunst & Hammer, 1988; Judd & Park, 1988). Thus:

2.4.5 Hypothesis 7a

A service provider will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when (1) the customer is perceived as an out-group member, and (2) the customer presents a high level of product knowledge.

As discussed, race issues have been extensively studied within areas parallel to the context of the current research. One such body of research is relevant here because race can be considered an appearance variable. In a series of experiments, White and Harkins (1994) studied the effect of race of target on persuasive communications in the
ELM. In the first experiment, no evidence was found that white participants responded to a black source as a simple negative cue. In subsequent experiments it was found that participants, even under low involvement, were highly motivated to process a message presented by a black source. The authors also found that attitudes toward the source's ethnic group, rather than violations of expectancies, accounted for this processing effect.

White and Harkins summarize by arguing that, taken together, their findings are supportive of Gaertner and Dovidio's (1986) Theory of Aversive Racism. This theory suggests that whites, because of a combination of egalitarian values and underlying negative racial attitudes, are very concerned about not appearing unfavorable toward blacks, leading them to be highly motivated to process messages presented by a source from this group. Petty, Fleming and White (1999) found similar results in a study on persuasions from sources who are stigmatized. They argue that people scrutinize messages from stigmatized sources in order to guard against possibly unfair reactions.

One must consider, however, that with the prevalence of diversity education whites (and other races) are more cognizant of the need to behave toward other races in a politically correct manner. Since more general appearance attributes are not typically included in such diversity discussions, it is less likely that there would be a parallel "theory of aversive appearance discrimination."

Garlick and Mongeau (1993) examined how individual status characteristics influence minority member persuasiveness. 480 undergraduates were given photographs of a four-person group and a transcript of their discussion. One group member was identified as holding a minority opinion. Five variables were manipulated: (1) minority
member occupational status, (2) minority member expertise, (3) minority member attractiveness, (4) minority argument quality, and (5) majority argument quality. Although all variables influenced perceived status, only relative argument quality had a direct impact on attitude change. Thus:

2.4.6 Hypothesis 7b

A service provider will positively evaluate a customer when (1) the customer is perceived as an out-group member and (2) the customer presents a high level of product knowledge.

Grant (1993) tested a hypothesis that inter-group similarity results in in-group/out-group differentiation rather than inter-group attraction, particularly when social identity is threatened. 66 female and 79 male undergraduates who had expressed their support for two issues relating to the quality of men and women were paired into opposite sex groups. The participant pairs then developed a written position on one of the issues. Inter-group belief similarity was manipulated using false feedback. Each group was led to believe that the other group affirmed or denied that the issue was of importance. The evidence did not support a similarity-differentiation hypothesis; rather, the similarity-attraction hypothesis was supported, particularly for female participants. Groups differentiated the out-group from their own group along stereotype and attitude dimensions in response to the threat to their social identity.
As in hypotheses 5a and 5b, the interactive affect of the variables results in:

2.4.7 Hypothesis 8a

A service provider will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when (1) the customer is perceived as an out-group member and (2) the customer presents a low level of product knowledge.

2.4.8 Hypothesis 8b

A service provider will most negatively evaluate a customer when (1) the customer is perceived as an out-group member and (2) the customer presents a low level of product knowledge.

2.5 The training intervention: Moving beyond in-group/out-group distinctions by considering the communicative process and "mindfulness"

One proposed way to eliminate in-group/out-group distinctions and the negative results of such categorizations is the creation of a “superordinate” goal (Nelson, 1988; Wilder, 1977, 1978). In the service context the superordinate goal would involve getting the customer’s need satisfied thus putting the service provider and customer in a team (in-group) relationship.

However, Rafeli (1989) conducted a field study at a supermarket in Israel where she observed the interactions between 30 cashiers and their customers. Rafeli’s qualitative analysis revealed that cashiers and customers held different views on who had the right to control service encounters and cashiers employed various strategies to maintain their control of those encounters. In addition, Rafeli found that customers had immediate influence over cashiers at the time of job performance. Although management
influence was more legitimate than customer influence, it was more remote. This would indicate that service providers may know that "the customer is always right" because that is the concept taught by management, but in the actual encounter the management influence may not lead to the desired service provider behavior. Thus, in the present context, a managerially-imposed superordinate goal may not be enough to overcome service providers' in-group/out-group distinctions of customers.

Johnston & Hewstone (1992) argue that one way to reduce category salience is by making more than one overlapping category salient at one time, such that some persons are members of the out-group on one dimension but members of the in-group on the other salient category. One place to create such overlapping categories may be in workplace training interventions.

The issue of social cognition appeared in many communication studies in the 1980s (Berger & Roloff, 1982; Delia et al., 1981; Milier, 1983; Roloff & Berger, 1982) and the results suggested that attitude change may not be a necessary condition to produce a set of behavioral responses within a receiver. These authors argued that individuals' responses to messages were predicated on the script and/or stereotype held for the sources. They argued that individuals need not rely on their own attitudes to guide behavior, but instead could recall and enact behaviors matched with some stimuli in the setting (Taylor & Fiske, 1980). These actions took place regardless of the receivers' attitudes, and respondents' behaviors were based on how they believed they were supposed to act within the setting.
Lombardi, Higgins, and Bargh (1987) conducted two experiments using 142 undergraduates to examine whether consciousness of a priming event at the time information about the event is retrieved from memory makes a qualitative difference as to the consequences of the prime for subsequent social judgments. Findings of two complementary experiments suggest that the function of consciousness of the priming events is to enable individuals to process subsequent information relevant to the primed constructs more flexibly.

According to Ball-Rokeach (1973), attempts to deal with the ambiguity of new situations involve a pattern of information seeking (uncertainty reduction) and tension (anxiety) reduction. Uncertainty refers to our inability to predict and explain our own and others’ behavior (Berger & Calabrese, 1975). Predictive uncertainty involves the degree to which we can predict strangers’ attitudes, beliefs, feelings, values, and behavior. Explanatory uncertainty, in contrast, involves the degree to which we can accurately explain why strangers behave the way they do (Gudykunst, 1993).

At its most basic level, the interaction between a service provider and a customer is simply dyadic communication. Although there are other variables introduced when we add the organizational setting (i.e., the customer’s needs, the firm’s reputation, etc.), we are still viewing the communicative process between two people. Effective communication refers to minimizing understandings. “To say that meaning in communication is never totally the same for all communicators is not to say that communication is impossible or even difficult – only that it is imperfect” (Fisher, 1978, p 257).
Ashforth and Fried (1988) argue that much organizational communication is performed “mindlessly” on the basis of scripts learned through organizational socialization, work experience, and symbolic management. While scripts conserve cognitive capacity, provide a basis for organizing and evaluating behavior, legitimate organizational activities, moderate role conflict, and facilitate sense making, prediction and control, they also induce a lack of vigilance and authenticity in operating routines, and narrow perceptions, premature closure, and superstitious learning in decision making.

Similarly, Triandis (1977) argues that communication behavior is based on one of three sources. First, people engage in much of their communication behavior out of habit. When people are communicating habitually, they are following scripts. Scripts are, “A coherent sequence of events expected by the individual involving him either as a participant or an observer” (Abelson, 1976, p 33). According to Langer (1989) when a person first encounters a new situation, he or she consciously seeks cues to guide his or her behavior. As one has repeated experiences with the same event, one has less need to consciously think about their behavior. “The more often we engage in the activity, the more likely it is that we rely on scripts for the completion of the activity and the less likely there will be any correspondence between our actions and those thoughts of ours that occur simultaneously” (Langer, 1989, p 39). The greeting ritual is one example of a script. In the service industry, an overused, learned series of standardized questions asked of customers is a good example of a mindless script.
In contrast, Soloman, Surprenant, Czepiel and Gutman (1985) argue that any encounter is assumed to contain learned and consistent behavior patterns; each participant should enact certain behaviors in order for the transaction to proceed smoothly. It is argued that the degree of congruence with this learned pattern or script by both the service provider and customer is an important determinant of satisfaction with the encounter. Thus, the focus is on the interdependence of both individuals. Each depends on the other to make the interaction run smoothly.

The second basis for communication is to form intentions. Intentions are “instructions” people give themselves about how to communicate (Triandis, 1977). When thinking about what to do in a particular situation, people form intentions. Intention, therefore, is a cognitive construct; it is part of the thought processes. When a behavior is based on intentions service providers are, at least implicitly, reducing their uncertainty by trying to predict their own and customers’ behaviors. When a social category is salient in a service provider’s evaluation, we can speak of that person’s focal awareness of the entity. When focal awareness is in effect, the target customer is noticed, stands out from the background, and increases the chance of evaluation (Wegner & Giuliano, 1998).

The final factor on which communication may be based is affect, feelings, or emotions (Triandis, 1977). People often react to others on a strictly emotional basis. They can, however, cognitively manage their emotional reactions (Gudykunst, 1993).
For example, in a service context the service provider may be physically or emotionally drained and in a bad mood but still smile to customers and treat them politely because that behavior is a required part of the job.

In order to communicate effectively, Langer (1989) would argue that service providers must become “mindful” of their thought processes. Langer isolates three qualities of mindfulness: “(1) creation of new categories; (2) openness to new information; and (3) awareness of more than one perspective” (p 62). When service providers engage in scripted behavior or base their behavior on emotional reactions, they are not highly aware of what they are doing or saying. Stated differently, they are “mindless” (Langer, 1989). The mindfulness construct is used widely, but it often is referred to in different terms. Beliah, Madsen, Sullivan, Swidler, and Tipton (1985) and Csikszentmihalyi (1990), for example, refer to the construct as “paying attention.”

Trungpa (1973) posits that a condition that contributes to being mindless is the use of categories. When uncertainty and anxiety are too high and service providers communicate mindlessly, they interpret customers’ behavior using their own cultural frame of reference. In the context of the current research, one immediate cue service providers may use to reduce uncertainty is to focus on visual cues to help them interpret behavior. According to Trungpa (1973), categorization often is based on physical (e.g., gender, race) or cultural (e.g., ethnic background) characteristics, but one can also categorize others in terms of their attitudes (e.g., liberal, conservative) or approaches to life (e.g., Christian, Buddhist).
In Sharma and Levy’s (1995) research, those salespeople classified as “decision-style-based categorizers” demonstrated a higher level of adaptive selling. This result may be because this type of salesperson goes beyond the customer’s stated needs and attempts to understand how the customer makes the decision. This type of adaptation requires developed perceptual skills that lead to salespeople utilizing a large number of categories. Thus the large number of categories leads to enhanced performance (Sharma & Levy, 1995). This observation would parallel the arguments of Langer (1989) who argues that being mindful involves making more, not fewer, distinctions between the people we observe. The finer our categories, the more our communication is based on the specific person with whom we are interacting.

Berger and Douglas (1982) isolate five conditions under which we are highly cognizant of our behavior. One of these items is relevant in the current context because it may be introduced in a training intervention. The authors argue that we are aware of our behavior where external factors prevent completion of a script.

Langer (1989) argues that for our effectiveness to increase when we are mindful, we must focus on the process of communication, not the outcome. More specifically, she contends that an outcome orientation in social situations can induce mindlessness. In other words, if service providers think they know how to handle a situation, they do not feel a need to pay attention. If they respond to the situation as very familiar (as a result, for example, of over-learning), they notice only minimal cues necessary to carry out the proper scenarios. If, on the other hand, the situation is strange, they might be so
preoccupied with the thought of failure that they miss nuances of their own and others’ behaviors. In this sense, they are mindless with respect to the immediate situation, although they may be thinking quite actively about outcome-related issues.

In addition, Langer (1989) also argues that focusing on the process (e.g., how one does something) forces people to be mindful of their behavior and pay attention to the situations in which they find themselves. It is only when they are mindful of the process of their communication that they can determine how their interpretations of messages differ from others’ interpretations of those messages. Recent research also suggests that when individuals are mindful, they can break the automatic negative prejudicial response associated with negative stereotypes (Devine, 1989). For example, a customer enters a Cadillac new car dealership wearing ragged and dirty clothes. Using only appearance cues, a salesperson might dismiss the customer as a dreamer who could not possibly earn enough to purchase a new Cadillac. However, by conversing with the customer in a “mindful” manner the salesperson learns that the customer works as a construction superintendent and has just come off of a double shift. Thus, the appearance cues tell the tale of a person in a well-paying, but dirty career rather than of a poor, out-of-place, dreamer.

Spitzberg and Cupach (1984) isolate three components of communication competence: motivation, knowledge, and skills. Motivation refers to the desire to communicate appropriately and effectively with others. Knowledge refers to an awareness or understanding of what needs to be done in order to communicate appropriately and effectively. Skills are people’s abilities to engage in the behaviors
necessary to communicate appropriately and effectively. According to Gudykunst (1993), Langer’s (1989) three components of mindfulness can be integrated with the three components of competence: openness to new information (motivation), awareness of more than one perspective (knowledge), and the ability to create new categories (skill). Each of these components must be taken into consideration in explaining effective communication with strangers.

Interpretation involves attaching meaning or social significance to social stimuli. To decrease the chance of misinterpretations of others’ messages based on our unconscious interpretations, service providers must be aware of their “normal” tendencies. Beck (1988, p61) outlines five principles of cognitive therapy that are useful in understanding how misinterpretations occur. These principles are included in the training intervention in the current research:

(1) We can never know the state of mind—the attitudes, thoughts, and feelings—of other people.

(2) We depend on signals, which are frequently ambiguous, to inform us about the attitudes and wishes of other people.

(3) We use our own coding system, which may be defective, to decipher these signals.

(4) Depending on our own state of mind at a particular time, we may be biased in our method of interpreting other people’s behavior, that is, how we decode.

(5) The degree to which we believe that we are correct in divining another person’s motives and attitudes is not related to the actual accuracy of our belief.
Cacioppo, Harkins and Petty (1981) describe how cognitive responses are the product of information-processing activity. Behaviors, on the other hand, refer to any and all observable acts. Investigations of the relationship between cognitive responses and behavior have indicated that general cognitive responses aimed at changing behavior (i.e., global self-instructions) have not been correlated highly with actual behavior change (Levinger, 1974).

Levinger (1974) has provided evidence that when cognitive responses are specific and behavioral implications are straightforward (i.e., there are few intervening events between the cognitive and behavioral responses), a relationship between the cognitive and behavioral responses is found. For instance, the simple but diffuse cognitive response, “Stop eating,” is likely to fail to lead to weight loss because persons may forget or judge not applicable this intention in a given specific situation, may succumb to habit, and so on. However, specific cognitive responses, such as, “I will leave this room as soon as the main course is completed,” more often lead to completion of the specific behavior and thereby to the general behavioral goal.

When service providers are not mindful of the process of their communication, they assume others interpret stimuli in the same way that they do. When they cognitively manage their anxiety, or are mindful, they can separate descriptions from interpretations and evaluations. Being mindful of the process of communication is necessary if service providers are to manage anxiety and make correct attributions (Langer, 1989).
2.5.1 Hypothesis 9a

Service providers who receive “mindfulness” training will recall more details about a customer’s needs, compared to details about the same customer’s appearance, regardless of in-group/out-group categorization and level of product knowledge.

2.5.2 Hypothesis 9b

Service providers who receive “mindfulness” training will evaluate customers more positively regardless of in-group/out-group categorization and level of product knowledge.

Table 2.1 on the following pages summarizes the operationalization of the 9 hypotheses, their conditions, and the results required to support them.
<table>
<thead>
<tr>
<th></th>
<th>Research Condition</th>
<th>Expected Result</th>
<th>Comparison Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Participants' self-reported similarity or dissimilarity to the customer based on appearance and computer knowledge</td>
<td>Participants will give similar customers higher attitude scores while giving relatively dissimilar customers lower attitude scores</td>
<td>Test for significant differences in attitude scores across the appearance and computer similarity scales</td>
</tr>
<tr>
<td>2a</td>
<td>Participants' self-reported similarity or dissimilarity to the customer based on appearance and computer knowledge</td>
<td>Participants rating the customer as similar will recall more product need information compared to participants rating the customer as dissimilar</td>
<td>Test for significant differences in need recall across the appearance and computer similarity scales</td>
</tr>
<tr>
<td>2b</td>
<td>Participants' self-reported similarity or dissimilarity to the customer based on appearance and computer knowledge</td>
<td>Participants rating the customer as similar will recall less appearance information compared to participants rating the customer as dissimilar</td>
<td>Test for significant differences in appearance recall across the two similarity scales</td>
</tr>
<tr>
<td>3</td>
<td>Strong versus weak product knowledge script</td>
<td>Participants observing the high product knowledge script will have a need/appearance ratio &gt;1 while those observing the weak script will have an need/appearance ratio &lt; 1</td>
<td>Test for significant differences in the need/appearance ratio between the “strong” and “weak” script participants</td>
</tr>
<tr>
<td>4</td>
<td>Strong versus weak product knowledge script</td>
<td>Participants observing the high product knowledge script will report higher attitude scores for the customer than participants observing the low product knowledge script</td>
<td>Test for significant differences in the attitude scores between the “strong” and “weak” script participant groups</td>
</tr>
<tr>
<td>5a</td>
<td>Participants self-reported similarity to the customer and customer with a strong knowledge script</td>
<td>Participants will have a need/appearance ratio &gt; than the same ratio for the comparison groups</td>
<td>Test for significant differences in the ratio between the “similar/strong” group and all other groups</td>
</tr>
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</table>

Table 2.1: Summary of operationalizations (continued on next page)
Table 2.1: Summary of operationalizations (continued)

<table>
<thead>
<tr>
<th></th>
<th>Participants self-reported similarity to the customer and customer with a strong knowledge script</th>
<th>Participants will report higher attitude scores for the customer than participants in comparison groups</th>
<th>Test for significant differences in the attitude scores between the “similar/strong” group and all other groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>5b</td>
<td>Participants self-reported similarity to the customer and customer with a weak knowledge script</td>
<td>Participants will have a need/appearance ratio &lt; than the same ratio for the comparison groups</td>
<td>Test for significant differences in the ratio between the “similar/weak” group and all other groups</td>
</tr>
<tr>
<td>6a</td>
<td>Participants self-reported similarity to the customer and customer with a weak knowledge script</td>
<td>Participants will report lower attitude scores for the customer than participants in the comparison group</td>
<td>Test for significant differences in the attitude scores between the “similar/weak” group and all other groups</td>
</tr>
<tr>
<td>6b</td>
<td>Participants self-reported dissimilarity to the customer and customer with a strong knowledge script</td>
<td>Participants will have a need/appearance ratio &lt; than the same ratio for the comparison group</td>
<td>Test for significant differences in the ratio between the “dissimilar/strong” group and all other groups</td>
</tr>
<tr>
<td>7a</td>
<td>Participants self-reported dissimilarity to the customer and customer with a strong knowledge script</td>
<td>Participants will report higher attitude scores for the customer than participants in the comparison group</td>
<td>Test for significant differences in the attitude scores between the “dissimilar/strong” group and all other groups</td>
</tr>
<tr>
<td>7b</td>
<td>Participants self-reported dissimilarity to the customer and customer with a strong knowledge script</td>
<td>Participants will report higher attitude scores for the customer than participants in the comparison group</td>
<td>Test for significant differences in the attitude scores between the “dissimilar/strong” group and all other groups</td>
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Table 2.1: Summary of operationalizations (continued on next page)
Table 2.1: Summary of operationalizations (concluded)

<table>
<thead>
<tr>
<th>8a</th>
<th>Participants self-reported dissimilarity to the customer and customer with a weak knowledge script</th>
<th>Participants will have a need/appearance ratio &gt; than the same ratio for all of the comparison groups</th>
<th>Test for significant differences in the ratio between the “dissimilar/weak” group and all other groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>8b</td>
<td>Participants self-reported dissimilarity to the customer and customer with a weak knowledge script</td>
<td>Participants will report lower attitude scores for the customer than participants in all other comparison groups</td>
<td>Test for significant differences in the attitude scores between the “dissimilar/weak” group and all other groups</td>
</tr>
<tr>
<td>9a</td>
<td>Trained versus non-trained participants</td>
<td>Participants will have a need/appearance ratio &gt; than the same ratio for all of the comparison groups without training</td>
<td>Test for significant differences in the ratio between those participants who have and have not received training</td>
</tr>
<tr>
<td>9b</td>
<td>Trained versus non-trained participants</td>
<td>Participants will report higher attitude scores for the customer than participants in all other comparison groups without training</td>
<td>Test for significant differences in the attitude scores between those participants who have and have not received training</td>
</tr>
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</table>
CHAPTER 3

METHODS

3.1 Sample

Participants were solicited by poster and by direct appeals from the primary investigator in undergraduate Organizational Leadership and Supervision (OLS) and undergraduate Psychology classes at Indiana University Purdue University Indianapolis (IUPUI). Participants were asked to volunteer for a research project that would test whether anyone, given a small amount of training, could function effectively as a computer salesperson. Given the human resources focus of the OLS degree, the description of the research purpose was plausible to participants. For a power (i.e., a reasonable probability of rejecting a false null hypothesis) of .80 (with alpha = .05), the experiment needed at least 155 participants. There were 180 participants in the study. Given the nontraditional enrollment at IUPUI, the participant pool was diverse with a mean age and employment tenure well above that usually found in experiments conducted on college campuses.
A total of 191 participants were enlisted to achieve 180 useable response sets. Eleven participants did not complete all sections of all surveys and those data were discarded. There were 15 participants in each of the 12 research conditions for a total of 180. Participants were all undergraduate students at IUPUI and were recruited on campus by poster and by direct appeal in 1998 and 1999. Most participants were majors from the Organizational Leadership and Supervision Department and the Psychology Department.

The 180 participants who provided useable data possessed the following demographic characteristics: There were 84 males (46.7%) and 96 females (53.3%). There were approximately 7 men and 8 women in each of the twelve research conditions. Whites accounted for 78.3% of the sample (N = 141), Blacks 15% (N = 27), Hispanic and American Indian 1.1% each (N = 2 each), and 4.4% (N = 8) identified themselves as “other.” The average participant age was 30.7 years and participants ranged in age from 18 years to 56 years. 83.3% of the sample (N = 150) had completed less than 12 semester hours of study in computer technology at the time of the survey. Participants had, on average, 1.7 years of retail experience with a range of 0 to 20 years across the sample.

3.2 Apparatus

The experiment was conducted using TV/VCR and pencil and paper surveys. All “customer” videos, training materials, and surveys were completed, coded, and manually entered into SPSS version 8.0.
3.3 Materials

3.3.1 The basic computer knowledge primer

This primer, detailed in Appendix A, was presented to all participants. It was designed to help ensure that all participants had at least a basic understanding of computers and knowledge of some computer jargon.

3.3.2 The training primer

This primer, detailed in Appendix B, was presented to participants in the experimental group. It was designed to help the participants become more cognizant of “mindfulness” in communication and thus focus more on the unique needs of the customer they viewed later in the experiment.

3.3.3 The primer about the “Computer Store”

This primer, detailed in Appendix C, was presented to participants in the control group. Its purpose was simply to balance the amount of material presented to participants in the control and experimental groups so the training interventions were of approximately equal length.

3.3.4 The videos of the “customer”

A male actor from the Indiana University School of Art was filmed in a total of six different conditions and participants viewed, through random assignment, one of the six videos. There were two different scripts—one with a strong product knowledge and one with weak knowledge, and three different dress conditions—formally dressed, casually dressed, and extreme dress. The specific details of the conditions in this 2x3 customer matrix are described later.
3.3.5 The introductory customer script

This script, detailed in Appendix D, was presented by the “customer” to participants in all research conditions. It was designed to create the context of a retail computer sales store and set the tone for the specific customer needs that followed.

3.3.6 The moderate knowledge script

This script, detailed in Appendix E, was designed to portray the “customer” as someone who has a good knowledge of computers and computer terminology. The script was used to create the strong knowledge condition.

3.3.7 The little or no knowledge script

This script, detailed in Appendix F, was designed to portray the “customer” as someone who had little or no knowledge of computers or computer jargon. The script was used to create the weak knowledge condition.

3.3.8 The pre-test survey for the moderate and no knowledge scripts

This survey, detailed in Appendix G, was designed to pre-test for a significant difference between the two scripts and thus validate that the scripts created the conditions of a strong and a weak product knowledge message.

3.3.9 The open-ended survey

This survey, presented in Appendix H, was designed to test participants’ recall of (1) specific “customer” needs presented in the video and (2) specific “customer” appearance attributes to be noticed and recalled by the participants.
3.3.10 Attitude survey questions

This 49-item scale, presented in Appendix I, was designed to measure various components of the participants’ attitudes of the customer:

Similarity. Participants rated their similarity to the customer on two dimensions – computer knowledge and appearance. This assessment allowed a comparison of “similar” and “dissimilar to me” effects.

Willingness to serve. Participants answered questions about how much they really wanted to serve the customer.

Intelligence. Participants rated the customer on intelligence. This measure was used to learn whether the product knowledge variable operated independently or if the similarity variables influenced participants’ assessment of the customer’s intelligence.

3.3.11 Demographic data survey

This survey, detailed in Appendix J, was designed to collect relevant demographic data so the research results may be analyzed in a variety of ways. Examples included comparisons based on participants’ gender, race, age, years of work and retail experience, computer knowledge, and self-reported style of dress. All documents and instruments, in their original form and correct order of presentation, are presented in Appendix N.
3.4 Design

The current experiment utilized a 2 x 2 x 3 factorial design and was conducted with a randomized, posttest design (Judd, Smith, & Kidder, 1991). The participant pool was split into experimental and control conditions. Participants in the control group received only a benign training intervention.

3.4.1 Brief discussion of design

This design did not include a pretest. A pretest was considered to allow for a randomization check as well as to provide within-subjects comparisons along with between-subjects comparisons (Judd, Smith, & Kidder, 1991). However, a pretest presented two major problems. First, given the nature of the experiment the pretest might have sensitized the control group participants to the actual purpose of the experiment and may have biased their posttest survey results (Cook & Campbell, 1979; Judd, Smith, & Kidder, 1979). Thus, any real effects of the training intervention may have been lost in research-induced learning. Unsupported hypotheses may not have been a failure of the training intervention but rather the result of sensitizing the control group participants and thus providing an unplanned-for “training intervention.”

The second major problem was a limitation of the methodology. If a pretest measure had been used, participants in both the control and experimental groups would have had to view two different customers. Since the experiment was randomized with a variety of different combinations of customers (dress and knowledge), the “type” of customer that the participant viewed in the pretest and posttest would have needed to be matched. This would have introduced problems stemming from variation in the actors.
and in the script. For instance, if a participant in the pretest viewed a formally dressed customer with a strong knowledge, the same conditions would need to exist in the posttest for the test to be valid. However, this would have required a second customer who would have possessed different non-discretionary appearance attributes than the first. Thus, there would have existed another potential explanation for any posttest differences. An even more difficult problem involved the scripts. Although two substantially different, “strong” and “weak” knowledge scripts could have been written, it would have been left open to considerable debate whether they were equally “strong” or “weak” and the internal validity of the study would have come into question.

Cook and Campbell (1979) argue that random assignment allows an experimenter to draw samples that are comparable to each other within known limits of the sampling error. The authors also argue that prior to the treatment and after random assignment, the average score of all the participants in one group should not differ from the average score in the other group. In other words, despite forgoing the pretest, with random assignment we would not expect the pretest means of the two groups to differ. Thus with a sufficient N of 15 participants per condition, the pretest (although desirable) was not necessary in the present design.

3.4.2 Evidence of equivalent groups

The participant sample was stratified on gender, but no other demographic variables were considered as participants were assigned to one of the twelve conditions. Analysis of Variance was performed to ensure that randomization did in fact create equivalent groups. The three research manipulations of customer dress, product
knowledge, and training were entered as independent variables. Four demographic variables that may have been problematic in this research were entered as dependent variables. These variables were: race, age, years of retail experience, and score on a 5-item computer knowledge test. Table 3.1 presents results that suggest the randomization was successful in creating equivalent groups. No significant findings were indicated. Thus, it appears that randomization was successful in creating groups that are equivalent on other study-related dimensions.

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>F</th>
<th>df</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dress</td>
<td>Race</td>
<td>0.945</td>
<td>2</td>
<td>0.391</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>1.325</td>
<td>2</td>
<td>0.269</td>
</tr>
<tr>
<td></td>
<td>Years in retail</td>
<td>0.878</td>
<td>2</td>
<td>0.417</td>
</tr>
<tr>
<td></td>
<td>Test score</td>
<td>1.271</td>
<td>2</td>
<td>0.283</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Race</td>
<td>0.039</td>
<td>1</td>
<td>0.843</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>1.903</td>
<td>1</td>
<td>0.170</td>
</tr>
<tr>
<td></td>
<td>Years in retail</td>
<td>0.047</td>
<td>1</td>
<td>0.829</td>
</tr>
<tr>
<td></td>
<td>Test score</td>
<td>0.006</td>
<td>1</td>
<td>0.938</td>
</tr>
<tr>
<td>Training</td>
<td>Race</td>
<td>0.527</td>
<td>1</td>
<td>0.469</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>0.078</td>
<td>1</td>
<td>0.780</td>
</tr>
<tr>
<td></td>
<td>Years in retail</td>
<td>0.972</td>
<td>1</td>
<td>0.326</td>
</tr>
<tr>
<td></td>
<td>Test score</td>
<td>0.488</td>
<td>1</td>
<td>0.486</td>
</tr>
</tbody>
</table>

Table 3.1: Evidence of equivalent groups in randomization

3.5 Procedure

The research examined (1) the extent to which two independent variables (discretionary appearance cues and product knowledge) and their interaction influence
attitudinal evaluation and recall ability in a customer request, and (2) the extent to which a focused training intervention reduced such influences. The experiment can be described as a three-step process.

**Step 1.** Participants were assigned to one of two groups—an experimental group or a control group. The assignment was random, but the overall participant pool was stratified so that approximately equal numbers of men and women were assigned to both groups. Participants assigned to the experimental group read (1) the basic computer knowledge primer (Appendix A) and (2) the training primer (Appendix B). Participants assigned to the control group read (1) the basic computer knowledge primer (Appendix A) and (2) the narrative about the “Computer Store” (Appendix C).

All participants read the basic computer knowledge primer (Appendix A) to ensure that every participant had at least a baseline level of computer knowledge at the start of the experiment. This short primer also reinforced the deceptive explanation for the experiment – to test whether anyone could work as a computer salesperson with a small amount of training.

Participants in the experimental group read the training primer (Appendix B) that included information about “mindfulness” in communication (Langer, 1989), effective communication, and appearance-based categorization. This primer was designed to help participants focus on the unique needs of the customer and not be distracted by irrelevant stimuli such as the customer’s appearance.
Participants in the control group read the narrative about the “Computer Store” (Appendix C) only as a benign training intervention to balance the lengths of the materials presented to the experimental and control groups.

Participants in both the experimental and control conditions read through the appropriate training material at a pace chosen by the participant. Once the participant reached the end of the training, there was an opportunity to review the primer. Thus, each participant had the opportunity to read and reflect on the ideas presented in accordance with their ability to read and assimilate the information.

Step 2. At the end of the training material the participant was asked, “Are you ready to continue?” When the participant responded affirmatively, the randomly-assigned “video customer” was introduced and the video was presented. The introduction was identical in all conditions. The introduction was as follows, “Please imagine that you are a computer salesperson as you watch the following video of a customer at our store. After the video ends, you will be asked some questions that will help us determine your potential for work as a computer salesperson.” The participant viewed the “customer” only one time.

Each participant viewed one of six randomly assigned video segments of a “Computer Store Customer” (played by a white, male, student actor). The target “customer” communicated in some detail why he needs a computer—a student use application so the participant group could relate to the situation. Again, the random assignment of videos was stratified so that approximately equal numbers of men and women from both the experimental and control groups viewed each video.
The independent manipulations of the “customer” involved product knowledge (2 conditions—strong and weak), and manner of dress (3 conditions—formal, casual, and extreme). Therefore, the six video segments contained the following combinations of independent variables: (1) strong knowledge script/formal customer dress, (2) strong knowledge script/casual customer dress, (3) strong knowledge script/extreme customer dress, (4) weak knowledge script/formal customer dress, (5) weak knowledge script/casual customer dress, and (6) weak knowledge script/extreme customer dress. These six conditions, combined with the control and experimental (training) conditions present in the participant group, composed the 2x2x3 matrix.

A strong knowledge was presented in a script where the customer used computer jargon frequently and correctly (Appendix E). A weak knowledge was presented in a script where the customer used little computer language and occasionally used computer jargon incorrectly (Appendix F). The customer in both product knowledge manipulations made an introductory statement and that statement was identical in all cases (see Appendix D).

In the formally dressed condition the target customer wore a blue suit with a conservative blue tie. In the casually-dressed condition the target customer wore blue jeans and a loose-fitting, plain blue T-shirt with a casual, open shirt over the top. The extreme condition presented the target in a loose-fitting, torn, blue T-shirt, blue jeans, and wearing noticeable “unusual” jewelry in the form of a large nose ring. No other jewelry was worn in any other condition.
Step 3. Participants responded to open-ended, unaided response questions that asked them to recall details about (1) the customer’s appearance and (2) the customer’s needs (Appendix H). Participants also completed an attitude survey (Appendix I) that asked about their views of the customer and they also completed a demographic profile survey (Appendix J). Finally, participants were provided with a debriefing sheet about the experiment (Appendix K).

To summarize, combining steps 1 and 2 of the procedure resulted in the 2x2x3 factorial that appears as table 3.2.

<table>
<thead>
<tr>
<th>Training? Yes/No *</th>
<th>Strong Knowledge</th>
<th>Weak Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Dress</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Casual Dress</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Extreme Dress</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

*There were 15 participants in each cell with a total of 180 participants

Table 3.2: The 2 x 2 x 3 research condition factorial

3.6 Analysis

Participants responded to two open-ended survey questions (Appendix H). The primary investigator and one assistant coded the open-ended survey questions. The procedure for coding was twofold. First, the researchers catalogued all adjectives and nouns as listed in all of the survey responses. Then, the researchers coded, for each
participant, whether or not that participant mentioned any of the specific items in the catalogue. The listing and the coding were checked for consistency and any discrepancies were resolved. Consistency between the coders was determined by first comparing the adjective/noun lists. The surveys were reviewed to resolve six discrepancies found when comparing the two lists. Then, after coding was competed, the two code lists were compared and the surveys reviewed until seventeen discrepancies in the count were resolved. All discrepancies were found to be the result of miscounting. Thus, after review, the coders were in agreement on all issues. The final list presented a numerical summary of the specific appearance attributes and customer needs that were recalled and listed by every participant so the appropriate comparisons could be made.

The customer attribute question, in its open-ended format, provided data on which attributes were noticed, processed, and recalled by the participant. For instance, did the participant notice details about the customer's appearance, or did the subject remember general details from the conversation such as the fact that the customer is a college student? The need recall question provided data about the specific information a salesperson would need to hear, process, and record in order to effectively serve the customer. Comparison of responses to these surveys was used to test hypotheses regarding (1) between-groups differences in recall and (2) improved focus on customer needs for those receiving training.

Answers to the attitude survey (Appendix I) suggested whether appearance and product knowledge affected the service provider's attitude toward the customer. For instance, was the customer classified as "similar to me" and thus evaluated positively by
the participant? The attitude survey assessed to what degree the training intervention improved the participant’s reported attitude about the customer. The participant’s attitude was measured on 19, seven-point Likert-type questions and 30 semantic differential items to determine (1) how likely/unlikely the participant believed the customer will actually buy a computer, (2) how favorably/unfavorably the participant viewed working with the customer, (3) how intelligent/unintelligent the participant viewed the customer, and (4) how similar/dissimilar the participant viewed the customer compared to themselves.

Demographic data (Appendix J) was collected at the end of the experiment to avoid any sensitization problems. Providing this data was required since failing to answer would prevent the participant’s survey responses from being included in the research. The demographic data was necessary because it provided the necessary dissection of the participant sample to allow a consideration of the main effects and interactions from multiple perspectives such as the age, gender, and work experience of the participant.

3.7 Pilot test results: The customer's scripts and manipulation checks

As a validity check, the scripts were pilot tested on non-participant students and computer technology faculty at the Purdue School of Engineering and Technology at IUPUI. Thirty students and faculty were randomly assigned a script to read and ranked the script on a Likert scale as demonstrating a moderate level of computer knowledge to little or no knowledge (Appendix G).

Two different scripts were used in the research to operationalize the product knowledge construct. The customer that presented a script demonstrating at least a
moderate level of computer knowledge created the strong knowledge condition. This condition was meant to replicate an average customer in the computer store who would come in with a reasonable amount of computer knowledge and an ability to use computer terminology appropriately. The customer that presented a script demonstrating little or no knowledge of computers created the weak knowledge condition. This condition was meant to replicate a novice computer user who would come into the computer store with little knowledge and avoided computer terminology, and when trying to use jargon, used it incorrectly. Script pilot test t-test results indicate that the two scripts did differentiate between strong and weak computer knowledge. Furthermore, the two scripts evoked different perceptions of the customer (an argument quality effect). The strong script evoked evaluations such as “intelligent” and “knowledgeable” while the weak script evoked evaluations such as “unintelligent” and “unprepared to purchase.”

3.8 Pre-video production pilot test

Prior to producing the customer videos, a full pilot test of the experiment was conducted. Pilot test participants completed the study just as they would in the actual research with the following differences: (1) participants read the script, rather than watching the video, (2) participants were provided a written description of the customer’s appearance, rather than seeing him on the video, (3) participants were not provided a $10 payment, (4) the actual purpose of the experiment was not revealed in the debriefing, and (5) a list of participants was maintained to prevent duplication in the actual research.

A total of 63 participants were enlisted to achieve 60 usable response sets (three participants did not complete all sections of all surveys and those data were discarded).
There were five participants in each of the 12 research conditions for a total of 60.
Participants were recruited from two junior-level IUPUI classes in the spring 1998
semester.

Results were not entirely supportive of the hypotheses, however, the pilot test was
successful enough to move on to the actual production of the videos. The pilot test
demonstrated that (1) the scripts differentiated between strong and weak knowledge, (2)
the appearance conditions provided enough variables to be recognized and recalled, (3)
the main effects of both appearance and product knowledge were significant, and (4) the
main effect of training was apparent although not statistically significant in the pilot test.

For example, the number of positive, negative and neutral comments that the
participants listed and categorized was compared using multivariate ANOVA and is
presented in table 3.3.
<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df</th>
<th>Significant at</th>
<th>( \eta^2 )</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress</td>
<td>3.761</td>
<td>6</td>
<td>.001</td>
<td>.066</td>
<td>.962</td>
</tr>
<tr>
<td>Knowledge</td>
<td>5.951</td>
<td>3</td>
<td>.001</td>
<td>.093</td>
<td>.953</td>
</tr>
<tr>
<td>Trained</td>
<td>1.237</td>
<td>3</td>
<td>.298</td>
<td>.024</td>
<td>.327</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress * Knowledge</td>
<td>3.249</td>
<td>6</td>
<td>.004</td>
<td>.066</td>
<td>.928</td>
</tr>
<tr>
<td>Dress * Trained</td>
<td>1.463</td>
<td>6</td>
<td>.190</td>
<td>.025</td>
<td>.567</td>
</tr>
<tr>
<td>Knowledge * Trained</td>
<td>0.461</td>
<td>3</td>
<td>.710</td>
<td>.018</td>
<td>.141</td>
</tr>
<tr>
<td>Dress * Knowledge*</td>
<td>1.826</td>
<td>6</td>
<td>.093</td>
<td>.036</td>
<td>.681</td>
</tr>
<tr>
<td>Trained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Significant Covariates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of Retail Experience</td>
<td>3.825</td>
<td>3</td>
<td>.011</td>
<td>.068</td>
<td>.811</td>
</tr>
</tbody>
</table>

Table 3.3: Open-ended response pilot test results – attitude

In addition, the number of appearance attributes and specific customer needs that participants listed was also compared using multivariate ANOVA and that data is presented in table 3.4.
<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df</th>
<th>Significant at</th>
<th>$\eta^2$</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress</td>
<td>24.572</td>
<td>4</td>
<td>.001</td>
<td>.228</td>
<td>1.000</td>
</tr>
<tr>
<td>Knowledge</td>
<td>5.223</td>
<td>2</td>
<td>.006</td>
<td>.060</td>
<td>.825</td>
</tr>
<tr>
<td>Trained</td>
<td>2.712</td>
<td>2</td>
<td>.069</td>
<td>.026</td>
<td>.530</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress * Knowledge</td>
<td>1.745</td>
<td>4</td>
<td>.140</td>
<td>.017</td>
<td>.532</td>
</tr>
<tr>
<td>Dress * Trained</td>
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<td>4</td>
<td>.001</td>
<td>.074</td>
<td>.981</td>
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<td>Knowledge * Trained</td>
<td>1.414</td>
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<td>.246</td>
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<td>Dress * Knowledge*</td>
<td>2.733</td>
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<td>.030</td>
<td>.752</td>
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<tr>
<td>Trained</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Significant Covariates</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score on computer pretest</td>
<td>4.407</td>
<td>2</td>
<td>.014</td>
<td>.067</td>
<td>.753</td>
</tr>
</tbody>
</table>

Table 3.4: Open-ended response pilot test results – recall

3.9 The videos, the customer’s appearance, and manipulation checks

A white, male, student actor was recruited from the Drama Department at the Indiana University School of Art to play the role of customer. He was filmed a total of six times to represent all of the variables of interest (three different dress conditions and two different product knowledge scripts). A white male was chosen because, as discussed, race and gender issues have been extensively addressed in related literature. Using a white male should have minimized, to some extent, other discriminative influences beyond the variables of interest.

The actor was filmed in a production studio in front of a “green screen.” These video segments were superimposed on a video of the computer department of a local “H. H. Gregg” electronics store. The store granted permission for the background video to be made while the store was closed. Members of the production crew walked in the
background to ensure the entire production looked as realistic as possible. In each of the six conditions the background video was queued at exactly the same point so the background views and background noise were identical for all six video conditions.

The actor memorized the scripts and was then filmed presenting the two scripts under the three different dress conditions. He was also aided in script presentation by the use of a teleprompter. The actor was instructed to present each script with an identical style, intonation, pace, and volume. In each role, the “customer,” regardless of dress and script, presented himself as similarly as possible. Two manipulation checks were in order. First, the film was reviewed by the primary investigator and the director to ensure that the scripts were presented word-for-word in all conditions. The final presentations were followed to the letter and the presentations were consistent across conditions. Second, drama school faculty and the production crew reviewed the videos to ensure the style of presentation (voice, tone, pace, clarity) was as close to identical as possible. Re-takes were made until all of these conditions were met.

One final manipulation check was to ensure that the visual variables of interest (suit and tie color, jeans and T-shirt color, tie dye shirt color and nose ring) all appear similarly in all versions of the videos as viewed on a television monitor. This check was performed by the primary investigator and the production crew and was satisfactory.

3.10 Created scales used in the main hypothesis tests

3.10.1 Similarity scales

An important variable in some hypotheses is the participant’s perception of similarity to the customer. Two perceived similarity scales were created to test the
perception of in-group or out-group categorization. Perceived similarity was evaluated based on (1) the customer's appearance and (2) the customer’s computer knowledge. Perceived similarity based on the customer’s appearance is assessed in the questionnaire in Likert-type questions 3, 11, 14, and 18 and in semantic differential items 25 through 30. Perceived similarity based on the customer’s computer knowledge is assessed in the questionnaire in Likert-type questions 6 and 16 and in semantic differential items 19 through 24.

An initial factor analysis was performed with all 18 of these questions. The rotated component matrix for this analysis is presented in table 3.5. Based on this analysis, three components with Eigenvalues greater than one were identified. However, most of the data did tend to group in the two desired components. To reduce the data to two distinct components, Likert-type questions 3 and 14 were eliminated.
<table>
<thead>
<tr>
<th>Component</th>
<th>Computer Knowledge Component</th>
<th>Appearance Component</th>
<th>Unexplained Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
<td>4.977</td>
<td>4.422</td>
<td>1.154</td>
</tr>
<tr>
<td>Likert 3</td>
<td></td>
<td></td>
<td>.756</td>
</tr>
<tr>
<td>Likert 11</td>
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<td>.586</td>
<td>.280</td>
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<tr>
<td>Likert 14</td>
<td></td>
<td>.404</td>
<td>.510</td>
</tr>
<tr>
<td>Likert 18</td>
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<td>.445</td>
<td>.391</td>
</tr>
<tr>
<td>Semantic 25</td>
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<td>.363</td>
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<td>Semantic 26</td>
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<td>Semantic 27</td>
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<td>Semantic 29</td>
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<td>.713</td>
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<td>Semantic 30</td>
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<td>.757</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>.765</td>
<td></td>
</tr>
<tr>
<td>Likert 6</td>
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<td></td>
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</tr>
<tr>
<td>Likert 16</td>
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<td></td>
<td></td>
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<tr>
<td>Semantic 19</td>
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<tr>
<td>Semantic 20</td>
<td>.732</td>
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<td>-.368</td>
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<td>Semantic 21</td>
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<td>.827</td>
</tr>
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<td>Semantic 22</td>
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<td>.784</td>
</tr>
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<tr>
<td>Semantic 24</td>
<td>.777</td>
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<td>-.260</td>
</tr>
</tbody>
</table>

Extraction method: Principal component analysis, SPSS 8.0
Rotation method: Verimax with Kaiser normalization
Note: Values less than .20 are suppressed

Table 3.5: Factor analysis for the similarity scales – all potential questions included

The second factor analysis was conducted with Likert-type questions 3 and 14 removed. This run produced the desired two components – one for similarity based on appearance and one for similarity based on computer knowledge – as the only two components with Eigenvalues greater than one.
Reliability estimates for each of the similarity sub-scales were then calculated. For the appearance similarity scale, Likert-type question 18 was removed because it demonstrated significantly weaker correlations with the other scale questions. In addition, it was significantly cross-loaded with the computer knowledge similarity scale. The reliability analysis indicated a negligible alpha improvement from 0.8565 to 0.8667 after Likert-type item 18 was removed. Thus, the resulting appearance similarity scale includes Likert-type question 11 and semantic differential items 25 through 30. The alpha for the appearance similarity scale is 0.8667.

For the computer knowledge similarity scale, reliability analysis indicated that Likert-type question 16 should be removed from the scale (alpha improvement from 0.8587 to 0.8918). Eliminating Likert-type question 16 was appropriate because it demonstrated significantly weaker correlations with the other scale questions. The resulting computer knowledge similarity scale includes Likert-type question 6 and semantic differential items 19 through 24. The alpha for the computer knowledge similarity scale is 0.8918.

Table 3.6 presents the final factor analysis results for the similarity variable. Tables 3.7 and 3.8 present the means, standard deviations, correlations, and reliability alpha for both scales. The specific questions that comprise each scale are presented after the associated table.
<table>
<thead>
<tr>
<th>Component</th>
<th>Computer Knowledge Component</th>
<th>Appearance Component</th>
<th>Next Unexplained Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
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<td>0.841</td>
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<td>Likert 11</td>
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</tr>
<tr>
<td>Semantic 25</td>
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</tr>
<tr>
<td>Semantic 26</td>
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<td>.828</td>
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<tr>
<td>Semantic 27</td>
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<td>.782</td>
<td></td>
</tr>
<tr>
<td>Semantic 28</td>
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<td></td>
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<tr>
<td>Semantic 29</td>
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<td>Semantic 30</td>
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<td>Semantic 23</td>
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<tr>
<td>Semantic 24</td>
<td>.782</td>
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</table>

Extraction method: Principal component analysis, SPSS 8.0
Rotation method: Verimax with Kaiser normalization
Note: Values less than .20 are suppressed

Table 3.6: Factor analysis for the similarity scales – selected questions included
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Lik’t 11</th>
<th>Sem 25</th>
<th>Sem 26</th>
<th>Sem 27</th>
<th>Sem 28</th>
<th>Sem 29</th>
<th>Sem 30</th>
</tr>
</thead>
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<td>1.000</td>
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<td></td>
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<td>.5425</td>
<td>.4376</td>
<td>.5351</td>
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</tbody>
</table>

All correlation coefficients are significant at $\alpha = .001$
Reliability alpha = 0.8667

Table 3.7: Correlation matrix for the appearance similarity scale

The final appearance similarity scale is composed of the following items:

Likert-type 11: This person looks like someone I would want to “hang out” with in public.

The customer’s style of dress compared to my style of dress:
Semantic 25: Different…Same
Semantic 26: Bad…Good
Semantic 27: Harmful…Beneficial
Semantic 28: Improper…Appropriate
Semantic 29: Extreme…Conformist
Semantic 30: Detestable…Likable
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Lik’t 6</th>
<th>Sem 19</th>
<th>Sem 20</th>
<th>Sem 21</th>
<th>Sem 22</th>
<th>Sem 23</th>
<th>Sem 24</th>
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<td>.4881</td>
<td>1.000</td>
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</table>

All correlation coefficients are significant at α = .001
Reliability alpha = 0.8918

Table 3.8: Correlation matrix for the computer knowledge similarity scale

The final computer knowledge similarity scale is composed of the following items:

Likert-type 6: Compared to your own knowledge of computers, how would you rate this customer in terms of his product knowledge?

The customer’s computer knowledge compared to my knowledge of computers:

- Semantic 19: Less...More
- Semantic 20: Unconvincing...Convincing
- Semantic 21: Inferior...Superior
- Semantic 22: Foolish...Wise
- Semantic 23: Weak...Strong
- Semantic 24: Beginner...Advanced
3.10.1.1 Similarity scale mean scores

The mean of each similarity scale was calculated to create two similarity fixed factors. For hypothesis testing, the two similarity fixed factor scores were maintained as interval scales with a possible range of 1 (not similar) to 7 (very similar). For the appearance similarity scale the mean was 3.670 with a standard error of the mean equal to 0.083 and a range from 1.000 to 6.286. For the computer knowledge similarity scale the mean was 4.222 with a standard error of the mean equal to 0.100 and a range from 1.143 to 7.000.

3.10.2 Participant evaluation of the customer – created scales

3.10.2.1 Factor analysis of the Likert-type questions

The questionnaire-based dependent variable scales used in the hypothesis tests were created through multiple factor analyses and reliability estimates. When the Likert-type and semantic differential questions were first created, the intent was to test specific groupings of questions from the overall questionnaire. For the Likert-type questions, the initial groupings of interest were the participant’s (1) evaluation of the customer’s product knowledge, (2) evaluation of the customer based on his appearance, and (3) willingness to serve the customer.

Factor analysis was conducted with all of the Likert-type questions except questions 6 and 11, which were used in the similarity scales (see section 3.10.1). Instead of four distinct components, five components with Eigenvalues greater than one
were identified (see table 3.9). However, the factor analysis indicated that the data did
tend to group in line with the questionnaire design. The exception was willingness to
serve. This component split into willingness to serve now – and in the future.

<table>
<thead>
<tr>
<th>Component Eigenvalue</th>
<th>Product Knowledge Component</th>
<th>Appearance Component</th>
<th>Willingness to Serve Now Component</th>
<th>Willingness to Serve in Future Component</th>
<th>Un-explained Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likert 1</td>
<td>2.965</td>
<td>2.069</td>
<td>2.057</td>
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<td>1.249</td>
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<tr>
<td>Likert 2</td>
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<td>- .354</td>
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<td>- .363</td>
<td>- .434</td>
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<td>Likert 4</td>
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<td>Likert 5</td>
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<td>Likert 9</td>
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<td>- .205</td>
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<td>Likert 13</td>
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<td>- .250</td>
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<td>Likert 14</td>
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<td>- .288</td>
<td>.483</td>
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<td>Likert 15</td>
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<td>.766</td>
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<tr>
<td>Likert 16</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Likert 17</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Likert 18</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Likert 19</td>
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</table>

Extraction method: Principal component analysis, SPSS 8.0
Rotation method: Varimax with Kaiser normalization
Note: Values less than .20 are suppressed

Table 3.9: Factor analysis for the Likert-type attitude questions – all potential questions
Based on this factor analysis, questions 1, 2, 8, and 15 were removed. Subsequent factor analysis produced four explainable components with Eigenvalues greater than one and no unexplainable components with an Eigenvalue greater than one.

Reliability estimates were then calculated for each component. The first component, product knowledge, was essentially useless. No combination of questions could produce a reliability alpha greater than 0.5555. There were other problems with this question set. Question 19 is not a Likert-type question and added little explanatory power to the scale, so it was deleted. Question 16 related to perceived similarity based on product knowledge, not product knowledge itself, so it was also removed.

Questions 4 and 10 were negatively correlated (-0.502), which is puzzling. Question 4 asked, “Should the customer do more product research before spending money on a computer?” Question 10 asked if the participant would have to teach the customer a lot about computers before helping the customer make a decision. Both questions seemed to ask if the customer knew enough about computers to make a purchase, but results indicate otherwise. It is difficult to explain the negative correlation, but clearly the items did not tie together as a single dependent variable. Question 10 may have been open to too much interpretation; perhaps the participant simply would not want to help the customer, whether he needed help or not. Whatever the explanation, question 4 stood alone as the only good Likert-type product knowledge question.

The second component, evaluation of appearance, produced a reliability alpha of 0.7109 with all four questions in the analysis. Unfortunately, three of the four items in the component were appearance similarity questions, not evaluative appearance...
questions. These questions did not group with the others in the appearance similarity scale and they had no predictive value in this scale in terms of hypothesis testing. From the Likert-type questions, only question 7 was appropriate as an appearance evaluation dependent variable. This Likert-type question stated, “I think the customer is appropriately dressed for the occasion.”

The third component, willingness to serve the customer now, demonstrated significant inter-item correlations and a moderate reliability alpha of 0.6295 (see table 3.10).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Likert 9</th>
<th>Likert 12</th>
<th>Likert 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likert 9</td>
<td>1.8667</td>
<td>1.1157</td>
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</tr>
<tr>
<td>Likert 12</td>
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<td>Likert 13</td>
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</table>

All correlation coefficients are significant at $a = .001$

Reliability alpha = 0.6295

Table 3.10: Correlation matrix for the willingness to serve now scale

The final willingness to serve now scale is comprised of the following items:

Likert-type 9: Based on what I now know about the customer, I would not want to serve him.
Likert-type 12: I would find it very rewarding to help this person buy a computer.
Likert-type 13: I believe helping this customer would really try my patience.

From these three questions, a willingness to serve now fixed factor was calculated by determining the mean of the three questions. For hypothesis testing, the willingness to
serve now fixed factor was maintained as an interval scale with a possible range of 1 (not willing) to 7 (very willing). For this scale, the mean was 2.441 with a standard error of the mean equal to 0.074 and a range from 1.000 to 5.333.

The fourth component consisted of two questions that identify the participant’s willingness to serve the customer in the future. The inter-item correlation was significant ($a = .01$), but only measured at 0.3777. Question 17 explicitly stated, “If this customer returned to the store, how willing would you be to serve him?” however, question 5 did not explicitly state future behavior. Therefore, given the relatively low inter-item correlation, question 17 was used alone as a measure of willingness to serve the customer in the future.

In summary, factor and reliability analyses of the Likert-type questions resulted in one, three-item scale for attitude about serving the customer now and three, one-item measures for evaluation of the customer’s appearance, evaluation of the customer’s product knowledge, and attitude about serving the customer in the future. Table 3.11 presents a summary factor analysis table for the selected questions.
<table>
<thead>
<tr>
<th>Component Eigenvalue</th>
<th>Willingness to Serve Now Component</th>
<th>Next Unexplained Component</th>
<th>Next Unexplained Component</th>
</tr>
</thead>
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<td>Likert 7</td>
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<td>Likert 9</td>
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<td>Likert 12</td>
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<td>Likert 13</td>
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</table>

Extraction method: Principal component analysis, SPSS 8.0
Rotation method: Varimax with Kaiser normalization
Note: Values less than .20 are suppressed

Table 3.11: Factor analysis for the Likert-type attitude questions – selected questions

Although this factor analysis demonstrated a relationship between questions 7 and 17, combining them into a single scale would not benefit hypothesis testing. Question 7 was an evaluation of the customer’s appearance and question 17 was about willingness to serve the customer in the future. While it is certainly interesting (and indirectly supportive of some hypotheses) that these items were significantly correlated (0.307, significant at $a = .001$), it served no evaluative purpose to combine them into a single scale.

3.10.2.2 Factor analysis of semantic differential items

A factor analysis and reliability analysis procedure was also used to test the semantic differential questions. The initial groupings of interest for the semantic
differential scales were (1) an evaluation of the customer's intelligence, (2) an evaluation of the customer's friendliness, and (3) an evaluation of the customer's appearance.

Factor analysis was performed on semantic differential items 1 through 18. (Semantic differential items 19 through 30 are in the similarity scales, see section 3.10.1.) Instead of three distinct components, five components with Eigenvalues greater than one were identified (see table 3.12). The factor analysis also indicated that the data tended to group along only two of the survey dimensions – appearance and intelligence.
<table>
<thead>
<tr>
<th>Component Eigenvalue</th>
<th>Appearance Component</th>
<th>Intelligence Component</th>
<th>Un-explained Component</th>
<th>Un-explained Component</th>
<th>Un-explained Component</th>
</tr>
</thead>
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Extraction method: Principal component analysis, SPSS 8.0
Rotation method: Varimax with Kaiser normalization
Note: Values less than .20 are suppressed

Table 3.12: Factor analysis for the semantic differential questions – all potential questions

Based on the results identified in table 3.13, semantic differential items 4, 5, 8, 12, 13, and 17 were removed because of their weak link to any single identifiable component. In addition, item 6 was removed because it had no logical link to the intelligence component (item 6 is the semantic pair, “mean/friendly”). A second factor analysis was then performed with the remaining semantic differential items (see table 89).
3.13). Only two distinct components were identified with Eigenvalues greater than one and those data grouped logically into either the appearance or intelligence component.

<table>
<thead>
<tr>
<th>Component Eigenvalue</th>
<th>Appearance Component</th>
<th>Intelligence Component</th>
<th>Unexplained Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic 1</td>
<td>3.921</td>
<td>2.962</td>
<td>0.775</td>
</tr>
<tr>
<td>Semantic 2</td>
<td>.839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 3</td>
<td>.798</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 7</td>
<td>.812</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 9</td>
<td>.669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 10</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 11</td>
<td>.815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 14</td>
<td>.823</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 15</td>
<td>.746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 16</td>
<td>.785</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 18</td>
<td>.832</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction method: Principal component analysis, SPSS 8.0
Rotation method: Varimax with Kaiser normalization
Note: Values less than .20 are suppressed

Table 3.13: Factor analysis for the semantic differential questions – selected questions

Reliability analyses were then performed. Semantic differential sub-scale 1, the evaluation of appearance sub-scale, provided good inter-item correlations for all items and a strong reliability alpha of 0.8898 (see table 3.14). This result was obtained without removing any additional questions. Thus, the semantic differential evaluation of appearance scale was comprised of items 10, 11, 14, 15, 16, and 18.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Sem 10</th>
<th>Sem 11</th>
<th>Sem 14</th>
<th>Sem 15</th>
<th>Sem 16</th>
<th>Sem 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic 10</td>
<td>4.6944</td>
<td>1.7848</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 11</td>
<td>4.2222</td>
<td>1.6997</td>
<td>.6026</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 14</td>
<td>3.9778</td>
<td>1.9142</td>
<td>.5343</td>
<td>.5630</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 15</td>
<td>3.7000</td>
<td>1.4908</td>
<td>.5302</td>
<td>.5865</td>
<td>.5164</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 16</td>
<td>5.0389</td>
<td>1.8652</td>
<td>.6682</td>
<td>.5788</td>
<td>.5510</td>
<td>.5688</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Semantic 18</td>
<td>4.1944</td>
<td>1.6850</td>
<td>.5902</td>
<td>.6481</td>
<td>.4898</td>
<td>.6038</td>
<td>.6429</td>
<td>1.000</td>
</tr>
</tbody>
</table>

All correlation coefficients are significant at $a = .001$
Reliability alpha = 0.8898

Table 3.14: Correlation matrix for the evaluation of appearance scale

The final semantic differential evaluation of appearance scale is comprised of the following items:

The customer’s appearance:
Semantic 10: Incorrect...Appropriate
Semantic 11: Harmful...Beneficial
Semantic 14: Unusual...Normal
Semantic 15: Extreme...Conformist
Semantic 16: Dirty...Clean
Semantic 18: Bad...Good

For the evaluation of appearance scale the mean was 4.305 with a standard error of the mean equal to 0.104 and a range from 1.167 to 6.500.

The semantic differential evaluation of customer intelligence scale also provided good inter-item correlations and a reliability alpha of 0.8093 (see table 3.15). Thus, semantic differential sub-scale 2 was comprised of questions 1, 2, 3, 7, and 9.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Sem 1</th>
<th>Sem 2</th>
<th>Sem 3</th>
<th>Sem 7</th>
<th>Sem 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic 1</td>
<td>4.9556</td>
<td>2.0492</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 2</td>
<td>5.6222</td>
<td>1.0526</td>
<td>.6397</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 3</td>
<td>5.1556</td>
<td>1.8211</td>
<td>.6261</td>
<td>.5467</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 7</td>
<td>4.7222</td>
<td>1.3077</td>
<td>.4373</td>
<td>.3820</td>
<td>.4335</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Semantic 9</td>
<td>5.2278</td>
<td>1.3976</td>
<td>.4483</td>
<td>.4386</td>
<td>.4381</td>
<td>.4077</td>
<td>1.000</td>
</tr>
</tbody>
</table>

All correlation coefficients are significant at $\alpha = .001$
Reliability alpha = 0.8093

Table 3.15: Correlation matrix for the evaluation of intelligence scale

The semantic differential evaluation of intelligence scale is comprised of the following items (note: this scale is revised in section 3.10.2.3):

- The customer:
  - Semantic 1: Unaware...Knowledgeable
  - Semantic 2: Stupid...Intelligent
  - Semantic 3: Unready...Prepared
  - Semantic 7: Weak...Strong
  - Semantic 9: Foolish...Wise

For the evaluation of intelligence scale the mean was 5.117 with a standard error of the mean equal to 0.847 and a range from 2.243 to 7.000.

3.10.2.3 Final combination of Likert-type and semantic differential questions

When the Likert-type and semantic differential questions were first created, the intent was to test specific groupings of questions from the overall questionnaire. The original intent was for the Likert-type questions and semantic differential questions to
remain separate in distinct scales. For the Likert-type questions, the initial groupings of interest were the participant’s (1) evaluation of the customer’s product knowledge, (2) evaluation of the customer based on his appearance, and (3) willingness to serve the customer. The initial groupings of interest for the semantic differential scales were (1) an evaluation of the customer’s intelligence, (2) an evaluation of the customer’s friendliness, and (3) an evaluation of the customer’s appearance. After conducting the analyses described in sections 3.10.2.1 and 3.10.2.2 it became clear that the data did not fall into these groupings. Therefore, the analysis described in this section was conducted to combine any Likert-type items that fit logically with the semantic differential items. This procedure eliminated duplicate measures and provided the strongest possible reliability and alpha estimates.

After analyzing each question type (Likert-type and semantic differential) separately, two similar groupings emerged across question types. The ‘evaluation of dress’ question 7 from the Likert-type questions logically was linked with the evaluation of appearance semantic differential scale. Likewise, the ‘product knowledge’ question 4 from the Likert-type questions logically was linked with the evaluation of intelligence semantic differential scale. The willingness to serve the customer in the future question still stood alone.

Factor analysis confirmed that question 7 fell into a single component with the semantic differential items (Eigenvalue 4.265). Likert-type question 7 was also significantly correlated with all of the related semantic differential scales. However, reliability analysis demonstrated that adding the Likert-type questions resulted in a
significant drop in the reliability alpha (from 0.8898 without the question to 0.7373 with the question). Therefore, the Likert-type question was not used in hypothesis testing in favor of the multi-item evaluation of appearance semantic differential scale described in section 3.10.2.1.

Factor analysis also confirmed that Likert-type question 4 fell into a single component with the semantic differential items (Eigenvalue 3.376). Likert-type question 4 was also significantly correlated with all of the related semantic differential scales. In this case, the addition of the Likert-type question improved the reliability alpha from 0.8093 to 0.8320. Table 3.16 presents means, standard deviations, and correlations for the revised evaluation of intelligence scale.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Lik 4</th>
<th>Sem 1</th>
<th>Sem 2</th>
<th>Sem 3</th>
<th>Sem 7</th>
<th>Sem 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likert 4</td>
<td>4.0778</td>
<td>1.9814</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 1</td>
<td>4.9556</td>
<td>2.0492</td>
<td>0.4782</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 2</td>
<td>5.6222</td>
<td>1.0526</td>
<td>0.4409</td>
<td>0.6397</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 3</td>
<td>5.1556</td>
<td>1.8211</td>
<td>0.5321</td>
<td>0.6261</td>
<td>0.5467</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic 7</td>
<td>4.7222</td>
<td>1.3077</td>
<td>0.3606</td>
<td>0.4373</td>
<td>0.3820</td>
<td>0.4335</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Semantic 9</td>
<td>5.2278</td>
<td>1.3976</td>
<td>0.4669</td>
<td>0.4483</td>
<td>0.4386</td>
<td>0.4381</td>
<td>0.4077</td>
<td>1.000</td>
</tr>
</tbody>
</table>

All correlation coefficients are significant at α = .001
Reliability alpha = 0.8320

Table 3.16: Correlation matrix for the revised evaluation of intelligence scale
The revised evaluation of intelligence scale is comprised of the following items:

Likert-type 4: This customer should do more product research before spending money on a computer.

The customer:
Semantic 1: Unaware...Knowledgeable
Semantic 2: Stupid...Intelligent
Semantic 3: Unready...Prepared
Semantic 7: Weak...Strong
Semantic 9: Foolish...Wise

For the revised evaluation of intelligence scale the mean was 4.960 with a standard error of the mean equal to 0.900 and a range from 2.167 to 7.000.

3.10.3 Created scale fixed factors

The mean score for each scale (evaluation of appearance and evaluation of intelligence) was calculated. For hypothesis testing, the two evaluation fixed factor scores were maintained as interval scales with a possible range of 1 (generally negative) to 7 (generally positive). For the evaluation of appearance scale the mean was 4.305 with a standard error of the mean equal to 0.104 and a range from 1.167 to 6.500. For the evaluation of intelligence scale the mean was 4.960 with a standard error of the mean equal to 0.900 and a range from 2.167 to 7.000.

3.10.4 Open-ended evaluation questions

It is important in this research for participants to list unaided, written evaluations of the customer. In the open-ended portion of the survey, participants were asked to list, in bullet-point form, their feelings and attitudes about the customer. After completing this page, the survey proctor asked the participants to code each of their comments as
either positive, negative, or neutral. These participant-provided tallies were used in some hypothesis tests. Table 3.17 lists summary data from all participant responses to this portion of the survey.

<table>
<thead>
<tr>
<th></th>
<th>Positive comments</th>
<th>Negative comments</th>
<th>Neutral comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.39</td>
<td>1.36</td>
<td>0.76</td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>0.09</td>
<td>0.10</td>
<td>0.06</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mode</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.27</td>
<td>1.30</td>
<td>0.79</td>
</tr>
<tr>
<td>Range of responses</td>
<td>0 to 6</td>
<td>0 to 8</td>
<td>0 to 3</td>
</tr>
</tbody>
</table>

Table 3.17: Descriptive data for the open-ended attitude question

3.10.5 Need-to-appearance ratio

The need-to-appearance ratio was used to determine if the participants' focus on customer need versus customer appearance details was significantly different across conditions. Participants completed two open-ended response questions. One question stated, “Providing as much detail as possible, please list as many of the specific things you can recall this customer was seeking for his new computer.” A second question stated, “Providing as much detail as possible, please describe the appearance of this customer.” This ratio was created by totaling the number of customer needs correctly identified by each participant and dividing that by the number of customer appearance items correctly identified by each participant. Descriptive data about this ratio is presented in table 3.18.
<table>
<thead>
<tr>
<th>Range of the need-to-appearance ratio</th>
<th>0.29 to 10.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.73</td>
</tr>
<tr>
<td>Standard Error of the Mean</td>
<td>0.10</td>
</tr>
<tr>
<td>Median</td>
<td>1.29</td>
</tr>
<tr>
<td>Mode</td>
<td>1</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.37</td>
</tr>
<tr>
<td>Range of the number of needs correctly identified</td>
<td>2 to 12</td>
</tr>
<tr>
<td>Mean</td>
<td>4.77</td>
</tr>
<tr>
<td>Range of the number of appearance details correctly identified</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Mean</td>
<td>2.76</td>
</tr>
</tbody>
</table>

Table 3.18: Descriptive data for the need-to-appearance ratio

As a final summary of the various scales, table 3.19 presents means, standard deviations, and intercorrelations for the primary main effects and evaluative scales.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dress (Main Effect)</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Knowledge (Main Effect)</td>
<td>-</td>
<td>-</td>
<td>.000</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Training (Main Effect)</td>
<td>-</td>
<td>-</td>
<td>.000</td>
<td>.000</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Similar Appearance¹ (Main Effect)</td>
<td>3.670</td>
<td>1.112</td>
<td>.692</td>
<td>.053</td>
<td>-.229</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Similar Computer Knowledge¹ (Main Effect)</td>
<td>4.222</td>
<td>1.342</td>
<td>.071</td>
<td>.767</td>
<td>.112</td>
<td>-.136</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Appearance Evaluation² (Scale)</td>
<td>4.305</td>
<td>1.401</td>
<td>.777</td>
<td>-.035</td>
<td>-.047</td>
<td>.819</td>
<td>.004</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Intelligence Evaluation² (Scale)</td>
<td>4.960</td>
<td>1.206</td>
<td>.117</td>
<td>.771</td>
<td>.069</td>
<td>-.122</td>
<td>.844</td>
<td>.016</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.19: Correlation matrix for the main effects and created scales (continued on next page)
Table 3.19: Correlation matrix for the main effects and the four created scales (concluded)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Willing to Serve Now(^3) (Scale)</td>
<td>2.441</td>
<td>0.988</td>
<td>0.173</td>
<td>0.071</td>
<td>0.267</td>
<td>-0.130</td>
<td>-0.019</td>
<td>0.032</td>
<td>0.117</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Willing to Serve in Future(^3) (Question)</td>
<td>2.589</td>
<td>1.677</td>
<td>0.146</td>
<td>0.073</td>
<td>0.120</td>
<td>-0.337</td>
<td>0.117</td>
<td>0.305</td>
<td>0.006</td>
<td>0.168</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Number of Positive Written Comments</td>
<td>2.389</td>
<td>1.270</td>
<td>0.140</td>
<td>-0.175</td>
<td>0.053</td>
<td>-0.063</td>
<td>0.138</td>
<td>-0.093</td>
<td>0.168</td>
<td>-0.281</td>
<td>-0.058</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Number of Negative Written Comments</td>
<td>1.361</td>
<td>1.302</td>
<td>0.063</td>
<td>0.073</td>
<td>-0.116</td>
<td>-0.056</td>
<td>-0.136</td>
<td>-0.141</td>
<td>-0.136</td>
<td>-0.113</td>
<td>0.017</td>
<td>-0.109</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>12. Need-to-Appearance Ratio</td>
<td>1.731</td>
<td>1.371</td>
<td>-0.295</td>
<td>-0.226</td>
<td>-0.011</td>
<td>0.296</td>
<td>0.194</td>
<td>0.391</td>
<td>0.141</td>
<td>0.040</td>
<td>-0.160</td>
<td>-0.043</td>
<td>-0.096</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note 1: On the similarity scales, numbers approaching 7 indicate the customer is relatively more similar
Note 2: On the evaluation scales, numbers approaching 7 are relatively more positive
Note 3: On the willingness scale and question, numbers approaching 7 are relatively more willing
** significant at alpha = .01 and * significant at alpha = .05
3.11 Evidence regarding the need to control for demographic variables

Two empirical tests were performed to assess whether or not the participants’ demographic characteristics would need to be treated as covariates in the hypothesis tests. Four participant demographic variables (race, age, years of retail experience, and computer knowledge test score) were tested to ensure equivalent responses across conditions. The dependent variables examined were three semantic differential scales, an attitude scale, the number of positive comments listed, the number of negative comments listed, and the need-to-appearance ratio (see section 3.10 for descriptions of these scales and ratios).

The categorical demographic variable of race was tested using the Kruskal Wallis Chi² test. Of the four scales and 26 individual items tested, only one item, semantic differential item number 28 (compared to my dress, the customer’s dress is improper/appropriate) demonstrated significant differences between participants based on the participant’s race (chi² = 8.030, significant at α = .039). In this test participants who identified themselves as American Indian were significantly more critical (mean = 154.0) while Blacks were significantly less critical (mean = 66.04). However, it must be noted that in the sample of 180 participants, only 2 participants identified themselves as American Indian.

The continuous demographic variables of age, years of retail experience, and computer knowledge test score were tested with Pallai’s Trace Analysis of Variance. Again, three semantic differential scales, an attitude scale, the number of positive and
negative comments listed, and the need-to-appearance ratio were tested as dependent variables. Table 3.20 presents data that show no significant differences within the demographic variables for these selected dependent variables.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.819</td>
<td>1.090</td>
<td>104</td>
<td>.276</td>
</tr>
<tr>
<td>Years in retail</td>
<td>4.774</td>
<td>0.958</td>
<td>806</td>
<td>.778</td>
</tr>
<tr>
<td>Test score</td>
<td>2.266</td>
<td>1.056</td>
<td>312</td>
<td>.260</td>
</tr>
</tbody>
</table>

Table 3.20: Evidence regarding the need to control for demographic variables

Neither of these tests demonstrated significant differences within the demographic variables. Given these results, it appears that there is no need to statistically control for covariates in the main hypothesis tests.
CHAPTER 4

RESULTS

Most of the statistical analyses were performed using the Pillai’s Trace Multivariate Analysis of Variance (MANOVA) program on SPSS Version 8.0 to test for main effects and interactions in this factorial design. The main effects of interest were (1) discretionary appearance (operationalized as style of dress), (2) product knowledge (operationalized with a strong technical knowledge script and a weak technical knowledge script), and (3) training effectiveness [operationalized as differences in survey responses between trained (experimental) participants and untrained (control) participants]. The dependent variables of interest in this design were the participants’ (1) evaluation of the customer’s appearance, (2) evaluation of the participant’s willingness to serve the customer, (3) ability to recall specific appearance details about the customer, (4) ability to recall specific details about the customer’s needs, (5) willingness to serve the customer now, and (6) willingness to serve the customer in the future.
4.1 Hypothesis tests

The participants' evaluations of the customer are related to hypothesis 1, as well as hypotheses 4, 5b, 6b, 7b, 8b and 9b. Multivariate Analysis of Variance was used to test for all main effects and interactions. Table 4.1 presents the results of the MANOVA test using all three created evaluation scales and the willingness to serve in the future question (see section 3.10.2) as dependent variables. Overall, three of the five main effects and one of the eleven relevant interactions demonstrated significant effects. Covariates were not included in this analysis (see section 3.4.2.2).
<table>
<thead>
<tr>
<th>DVs = All 4 Evaluative Measures</th>
<th>F</th>
<th>df</th>
<th>Significant at</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dress (D)</strong></td>
<td>2.933</td>
<td>8</td>
<td>.005</td>
<td>.161</td>
<td>0.943</td>
</tr>
<tr>
<td><strong>Knowledge (A)</strong></td>
<td>8.932</td>
<td>4</td>
<td>.001</td>
<td>.398</td>
<td>0.999</td>
</tr>
<tr>
<td>Training (T)</td>
<td>1.799</td>
<td>4</td>
<td>.141</td>
<td>.107</td>
<td>0.516</td>
</tr>
<tr>
<td>Similarity of Appearance</td>
<td>0.995</td>
<td>132</td>
<td>.507</td>
<td>.343</td>
<td>0.999</td>
</tr>
<tr>
<td><em>(SA)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Similarity of Computer</strong></td>
<td>1.292</td>
<td>148</td>
<td>.047</td>
<td>.450</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Knowledge (SC)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relevant Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D * A</strong></td>
<td>2.514</td>
<td>4</td>
<td>.051</td>
<td>.144</td>
<td>0.680</td>
</tr>
<tr>
<td><strong>D * T</strong></td>
<td>2.422</td>
<td>4</td>
<td>.058</td>
<td>.139</td>
<td>0.661</td>
</tr>
<tr>
<td><strong>D * SC</strong></td>
<td>0.880</td>
<td>144</td>
<td>.797</td>
<td>.357</td>
<td>0.997</td>
</tr>
<tr>
<td><strong>D * A * T</strong></td>
<td>0.825</td>
<td>4</td>
<td>.515</td>
<td>.052</td>
<td>0.248</td>
</tr>
<tr>
<td><strong>D * T * SC</strong></td>
<td>0.861</td>
<td>28</td>
<td>.670</td>
<td>.096</td>
<td>0.758</td>
</tr>
<tr>
<td><strong>A * T</strong></td>
<td>2.548</td>
<td>4</td>
<td>.057</td>
<td>.146</td>
<td>0.689</td>
</tr>
<tr>
<td><strong>A * SA</strong></td>
<td>1.036</td>
<td>64</td>
<td>.414</td>
<td>.208</td>
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</tr>
<tr>
<td><strong>A * SC</strong></td>
<td>1.267</td>
<td>16</td>
<td>.220</td>
<td>.082</td>
<td>0.797</td>
</tr>
<tr>
<td><strong>A * T * SA</strong></td>
<td>1.454</td>
<td>8</td>
<td>.181</td>
<td>.087</td>
<td>0.635</td>
</tr>
<tr>
<td><strong>T * SA</strong></td>
<td>1.136</td>
<td>60</td>
<td>.249</td>
<td>.213</td>
<td>0.990</td>
</tr>
<tr>
<td><strong>T * SC</strong></td>
<td>1.015</td>
<td>68</td>
<td>.456</td>
<td>.232</td>
<td>0.984</td>
</tr>
</tbody>
</table>

Items in **bold** are significant at $a = .05$ or better

Table 4.1: Analysis of variance with all four evaluative scales as dependent variables
Table 4.2 presents the MANOVA between-subjects analysis for the independent variables. Only sources with significant results are presented. Of particular note, the independent manipulation of the customer’s style of dress had a significant influence on the participants’ willingness to serve the customer now (F = 8.610) and the evaluation of the customer’s intelligence (F = 4.013). However, for the evaluation of the customer’s intelligence the test’s observed power was weak (0.690).

The customer’s product knowledge (strong or weak script) had a significant influence on the participants’ willingness to serve the customer in the future (F = 13.179) although, as noted, this was a one-item measure. However, the observed power of the test was 0.945.

The training manipulation had less than the predicted effect overall. However, the training manipulation did influence the participants’ evaluation of the customer’s intelligence (F = 4.201). This test was weak with an observed power of only 0.521.

The participants’ willingness to serve the customer now was significantly influenced by three of the interactions, (1) the dress and product knowledge interaction (F = 10.652, observed power = 0.893), (2) the dress and training interaction (F = 4.200, observed power = 0.711), and (3) the product knowledge and training interaction (F = 5.528, observed power = 0.637).

Finally, the interaction between training and similarity of appearance significantly influenced the evaluation of the customer’s appearance (F =1.901).
<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Df</th>
<th>Significant</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>At</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress</td>
<td>1</td>
<td>8.610</td>
<td>2</td>
<td>.001</td>
<td>.264</td>
<td>0.958</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2.582</td>
<td>2</td>
<td>.086</td>
<td>.097</td>
<td>0.491</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>154.021</td>
<td>2</td>
<td>.001</td>
<td>.865</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4.013</td>
<td>2</td>
<td>.024</td>
<td>.143</td>
<td>0.690</td>
</tr>
<tr>
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<td>.880</td>
<td>.001</td>
<td>0.053</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>13.179</td>
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<td>.001</td>
<td>.215</td>
<td>0.945</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.621</td>
<td>1</td>
<td>.435</td>
<td>.013</td>
<td>0.121</td>
</tr>
<tr>
<td></td>
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<td>1</td>
<td>.003</td>
<td>.172</td>
<td>0.871</td>
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<td>1</td>
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<td>.018</td>
<td>0.162</td>
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<td>1</td>
<td>.574</td>
<td>.006</td>
<td>0.086</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.581</td>
<td>1</td>
<td>.449</td>
<td>.011</td>
<td>0.116</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4.201</td>
<td>1</td>
<td>.045</td>
<td>.072</td>
<td>0.521</td>
</tr>
<tr>
<td>Similarity Of Appearance</td>
<td>1</td>
<td>0.927</td>
<td>33</td>
<td>.586</td>
<td>.362</td>
<td>0.658</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.396</td>
<td>33</td>
<td>.997</td>
<td>.195</td>
<td>0.285</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.739</td>
<td>33</td>
<td>.035</td>
<td>.515</td>
<td>0.967</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1.330</td>
<td>33</td>
<td>.173</td>
<td>.448</td>
<td>0.887</td>
</tr>
<tr>
<td>Similarity Of Computer Knowledge</td>
<td>1</td>
<td>1.095</td>
<td>37</td>
<td>.380</td>
<td>.458</td>
<td>0.795</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.487</td>
<td>37</td>
<td>.098</td>
<td>.534</td>
<td>0.929</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.660</td>
<td>37</td>
<td>.904</td>
<td>.337</td>
<td>0.501</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.991</td>
<td>37</td>
<td>.001</td>
<td>.697</td>
<td>1.000</td>
</tr>
<tr>
<td>Dress * Knowledge</td>
<td>1</td>
<td>10.652</td>
<td>1</td>
<td>.002</td>
<td>.165</td>
<td>0.893</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.018</td>
<td>1</td>
<td>.893</td>
<td>.000</td>
<td>0.052</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.022</td>
<td>1</td>
<td>.883</td>
<td>.000</td>
<td>0.052</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.346</td>
<td>1</td>
<td>.559</td>
<td>.006</td>
<td>0.089</td>
</tr>
<tr>
<td>Dress * Training</td>
<td>1</td>
<td>4.200</td>
<td>2</td>
<td>.021</td>
<td>.149</td>
<td>0.711</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.583</td>
<td>2</td>
<td>.562</td>
<td>.024</td>
<td>0.141</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.325</td>
<td>2</td>
<td>.275</td>
<td>.052</td>
<td>0.272</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.465</td>
<td>2</td>
<td>.631</td>
<td>.019</td>
<td>0.122</td>
</tr>
<tr>
<td>Knowledge * Training</td>
<td>1</td>
<td>5.528</td>
<td>1</td>
<td>.022</td>
<td>.093</td>
<td>0.637</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.143</td>
<td>1</td>
<td>.707</td>
<td>.003</td>
<td>0.066</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.279</td>
<td>1</td>
<td>.263</td>
<td>.023</td>
<td>0.199</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3.201</td>
<td>1</td>
<td>.079</td>
<td>.056</td>
<td>0.420</td>
</tr>
<tr>
<td>Training * Similarity of Appearance</td>
<td>1</td>
<td>1.265</td>
<td>15</td>
<td>.256</td>
<td>.260</td>
<td>0.690</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.707</td>
<td>15</td>
<td>.767</td>
<td>.164</td>
<td>0.391</td>
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<tr>
<td></td>
<td>3</td>
<td>1.901</td>
<td>15</td>
<td>.044</td>
<td>.346</td>
<td>0.891</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.483</td>
<td>15</td>
<td>.939</td>
<td>.118</td>
<td>0.261</td>
</tr>
</tbody>
</table>

Note 1: Dependent variable codes:
1 = Willingness to serve customer now (scale)
2 = Willingness to serve customer in future (1 item)
3 = Evaluation of customer's appearance (scale)
4 = Evaluation of customer's intelligence (scale)

Significant results indicated in **bold**

Table 4.2: Analysis of variance for individual attitude scales – sources with significant items only
Hypothesis 1. There is a positive relationship between a service provider’s perception of similarity to a customer and the service provider’s attitude evaluation of the customer.

Hypothesis one would be fully supported if there were significant differences in the participants’ attitude evaluations based on two relative similarity measures. Computer knowledge and appearance similarity scales were created to test the perception of in-group categorization and subsequent positive attitude evaluation of the customer. The scales are described in section 3.10. For example, participants rating customers as relatively similar should make more positive evaluations while participants rating customers as relatively dissimilar should make more negative evaluations. Overall, this hypothesis received only partial support.

In the MANOVA test with similarity based on computer knowledge as the independent variable, and all four evaluation scales included as a single dependent variable (see table 4.1), the hypothesis was supported. Similarity based on computer knowledge had some influence on participants’ overall attitude toward the customer (F = 1.292, significant at α = .05).

In tests of the computer knowledge similarity effect on the individual attitude scales (see table 4.2), the hypothesis received only partial support. Computer knowledge similarity only influenced the participants’ evaluation of the customer’s intelligence (F = 2.991). Descriptive data demonstrated the predicted positive relationship between computer knowledge similarity and the participants’ evaluations of the customer’s
intelligence. However, there was no effect on willingness to serve the customer now (F = 1.095) or in the future (F = 1.487) or on the evaluation of the customer’s appearance (F = 0.660).

Finally, in a test of written comments (see table 4.3), computer knowledge similarity did influence the number of negative (F = 2.105) and neutral (F = 2.083) comments, but not the number of positive comments (F = 1.082). For the number of negative comments, the relationship was as predicted; participants who evaluated the customer as relatively dissimilar, based on computer knowledge, wrote a significantly larger number of negative comments.

<table>
<thead>
<tr>
<th>Number of:</th>
<th>Mean</th>
<th>Std. Error</th>
<th>F</th>
<th>df</th>
<th>Significant At</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive comments</td>
<td>2.389</td>
<td>.0947</td>
<td>1.082</td>
<td>37</td>
<td>.362</td>
<td>.220</td>
<td>0.911</td>
</tr>
<tr>
<td>Negative comments</td>
<td>1.362</td>
<td>.0970</td>
<td>2.105</td>
<td>37</td>
<td>.001</td>
<td>.354</td>
<td>0.999</td>
</tr>
<tr>
<td>Neutral comments</td>
<td>0.756</td>
<td>.0588</td>
<td>2.083</td>
<td>37</td>
<td>.001</td>
<td>.352</td>
<td>0.999</td>
</tr>
</tbody>
</table>

Table 4.3: Computer knowledge similarity effect on the number of written evaluative comments
In the MANOVA test with similarity based on appearance as the independent variable, and all four evaluation scales included as a single dependent variable (see table 4.1), the hypothesis received no support. Similarity of appearance had no influence on participants' overall attitude toward the customer ($F = 0.995$).

In tests of the appearance similarity effect on the individual attitude scales (see table 4.2), the hypothesis received weak support. Similarity of appearance only influenced the participants' evaluation of the customer's appearance ($F = 1.739$). Descriptive data demonstrated the predicted positive relationship between appearance similarity and the participants' evaluations of the customer's appearance. However, appearance similarity did not influence the participants' willingness to serve the customer now ($F = 0.927$) or in the future ($F = 0.3960$). Appearance similarity also had no effect on the evaluation of the customer's intelligence ($F = 1.330$).

Finally, in a test of written comments (see table 4.4), appearance similarity did not influence the number of positive ($F = 1.208$), negative ($F = 0.518$), or neutral comments ($F = 1.242$).

<table>
<thead>
<tr>
<th>Number of:</th>
<th>$F$</th>
<th>df</th>
<th>Significant At</th>
<th>$\eta^2$</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive comments</td>
<td>1.208</td>
<td>33</td>
<td>.223</td>
<td>.214</td>
<td>0.930</td>
</tr>
<tr>
<td>Negative comments</td>
<td>0.518</td>
<td>33</td>
<td>.985</td>
<td>.105</td>
<td>0.483</td>
</tr>
<tr>
<td>Neutral comments</td>
<td>1.242</td>
<td>33</td>
<td>.193</td>
<td>.219</td>
<td>0.938</td>
</tr>
</tbody>
</table>

Table 4.4: Appearance similarity effect on the number of written evaluative comments
Hypothesis 2a: There is a positive relationship between a service provider’s perception of similarity to a customer and the amount of product need information recalled by the service provider.

Hypothesis 2a was not supported as shown in table 4.5. The perceived similarity between the service provider and the customer, based on either appearance (F = 0.741) or computer knowledge (F = 1.092), did not have a significant influence on the number of customer needs recalled.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>F</th>
<th>df</th>
<th>Significant At</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similarity of appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of product needs recalled</td>
<td>6.189</td>
<td>2.181</td>
<td>0.741</td>
<td>33</td>
<td>.843</td>
<td>.143</td>
<td>0.689</td>
</tr>
<tr>
<td>Similarity of computer knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of product needs recalled</td>
<td>1.092</td>
<td>37</td>
<td>.348</td>
<td></td>
<td>.222</td>
<td>.094</td>
<td>0.914</td>
</tr>
</tbody>
</table>

Table 4.5: Relative similarity effect on the number of product needs recalled

Hypothesis 2b: There is a negative relationship between a service provider’s perception of similarity to a customer and the amount of customer appearance information recalled by the service provider.

This hypothesis was partially supported as shown in table 4.6. Participants who perceived themselves as relatively more similar based on appearance recalled
significantly fewer customer appearance details ($F = 4.169$). The negative relationship was evident in the descriptive data. For example, the twelve participants clustered at the ‘least similar’ end of the appearance similarity scale listed a mean of 5.91 appearance items in the open-ended portion of the questionnaire. The twelve participants clustered at the ‘most similar’ end of the appearance similarity scale listed a mean of 3.64 appearance items.

However, hypothesis 2b was not supported based on computer knowledge similarity (see table 4.6). In this case, there was no significant difference in the number of appearance items recalled ($F = 1.278$).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>$F$</th>
<th>df</th>
<th>Significant At</th>
<th>$\eta^2$</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similarity of appearance</td>
<td></td>
<td></td>
<td></td>
<td>33</td>
<td>.001</td>
<td>.485</td>
<td>1.000</td>
</tr>
<tr>
<td>Number of appearance items recalled</td>
<td>4.639</td>
<td>1.925</td>
<td>4.169</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Similarity of computer knowledge</td>
<td></td>
<td></td>
<td></td>
<td>37</td>
<td>.156</td>
<td>.250</td>
<td>0.960</td>
</tr>
<tr>
<td>Number of appearance items recalled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6: Relative similarity effect on the number of customer appearance items recalled
Hypothesis 3: Service providers will recall more details about a customer’s needs, compared to details about the same customer’s appearance, when the customer presents a high level of product knowledge. Conversely, service providers will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when the customer presents low levels of product knowledge.

Hypothesis 3 was partially supported by the data presented in table 4.7. While the need-to-appearance ratio was significantly larger for the customer presenting the strong knowledge script compared to the weak knowledge script (F = 9.575), the weak knowledge script did not produce a need-to-appearance ratio of less than one as predicted (ratio mean = 1.7372).

The product knowledge main effect was the strongest of all main effects and interactions (F = 8.932, \( \eta^2 = .398 \), see table 4.1). As predicted, the product knowledge main effect did significantly affect the need-to-appearance recall ratio. Participants listed more product need items than customer appearance items in both cases. However, the ratio was significantly more biased to product need recall with the strong script.

<table>
<thead>
<tr>
<th>Product Knowledge</th>
<th>Need/Appearance Ratio – Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Script</td>
<td>2.0401</td>
<td>1.7020</td>
<td>90</td>
</tr>
<tr>
<td>Weak Script</td>
<td>1.7372</td>
<td>0.8318</td>
<td>90</td>
</tr>
</tbody>
</table>

\( F = 9.575 \), significant at alpha = .002, \( \eta^2 = .051 \), observed power = 0.868

Table 4.7: Product knowledge effect on the need-to-appearance recall ratio
Hypothesis 4: There is a positive relationship between the level of knowledge in the customer's request and the service provider's attitude evaluation of the customer.

Hypothesis four was partially supported. The main effects of product knowledge presented in table 4.1 provide support for this hypothesis. Participants who observed the customer who presented a strong script made a significantly more positive overall evaluation of the customer \( (F = 8.932) \). As predicted, there was a positive relationship between product knowledge and the participants' evaluation of the customer's intelligence \( (F = 9.938, \text{ see table 4.2}) \).

In addition, written responses were partially supportive of hypothesis four (see table 4.8). Participants wrote, in the open-ended portion of the questionnaire, significantly more positive comments for the strong knowledge script \( (t = 2.378) \). Participants wrote more negative comments for the weak knowledge script, but the difference was not statistically significant \( (t = -.0973) \). Participants listed significantly more neutral comments for the weak knowledge script \( (t = -2.894) \).

<table>
<thead>
<tr>
<th>Number of:</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>t-score</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong knowledge</td>
<td>2.6111</td>
<td>1.3042</td>
<td>2.378</td>
<td>.018</td>
</tr>
<tr>
<td>Weak knowledge</td>
<td>2.1667</td>
<td>1.2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong knowledge</td>
<td>1.2667</td>
<td>1.1495</td>
<td>-0.973</td>
<td>.332</td>
</tr>
<tr>
<td>Weak knowledge</td>
<td>1.4556</td>
<td>1.4391</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong knowledge</td>
<td>0.5889</td>
<td>0.7479</td>
<td>-2.894</td>
<td>.004</td>
</tr>
<tr>
<td>Weak knowledge</td>
<td>0.9222</td>
<td>0.7964</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.8: Product knowledge effect on the number of written comments
However, some of the results presented in table 4.2 did not support hypothesis four. Product knowledge had no influence on the participants’ willingness to serve the customer now (F = 0.023). Product knowledge did significantly influence the participants’ willingness to serve the customer in the future (F = 13.179) but the relationship was negative, not positive as predicted (see table 4.9). Participants who viewed the weak knowledge customer were more favorable in their willingness to serve him in the future (mean = 2.71) than participants who viewed the strong script (mean = 2.47).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong script</td>
<td>2.4667</td>
<td>1.7559</td>
<td>2.000</td>
</tr>
<tr>
<td>Weak script</td>
<td>2.7111</td>
<td>1.5952</td>
<td>3.000</td>
</tr>
</tbody>
</table>

Note 1: Numbers approaching 1 indicate less willingness to serve in the future

Table 4.9: Product knowledge effect on willingness to serve in the future

_Hypothesis 5a: A service provider will recall more details about a customer’s needs, compared to details about the same customer’s appearance, when (1) the customer presents strong knowledge and when (2) the service provider categorizes the customer as an in-group member._

Hypothesis 5a was not supported. This hypothesis presumed an interaction between product knowledge and similarity for the dependent variable, need-to-appearance recall ratio. For hypothesis 5a, similarity was tested with both similarity scales – similarity of appearance and similarity of computer knowledge. Data in table
4.10 provided no evidence for an interaction between knowledge and either of the similarity scales. No significant interactive effect between knowledge and similarity of appearance was demonstrated ($F = 0.657$). Likewise, there was no interactive effect demonstrated between script and similarity of computer knowledge ($F = 0.307$). Thus, this hypothesis was not supported.

<table>
<thead>
<tr>
<th>DV = Need-to-Appearance Ratio</th>
<th>F</th>
<th>df</th>
<th>Significant At</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge (A)</td>
<td>2.948</td>
<td>1</td>
<td>.089</td>
<td>.024</td>
<td>0.399</td>
</tr>
<tr>
<td>Similarity of Appearance (SA)</td>
<td>1.214</td>
<td>33</td>
<td>.224</td>
<td>.254</td>
<td>0.921</td>
</tr>
<tr>
<td>Main Effects 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge (A)</td>
<td>0.000</td>
<td>1</td>
<td>.995</td>
<td>.000</td>
<td>0.050</td>
</tr>
<tr>
<td>Similarity of Computer Knowledge (SC)</td>
<td>0.307</td>
<td>37</td>
<td>.896</td>
<td>.164</td>
<td>0.677</td>
</tr>
<tr>
<td>Relevant Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A * SA</td>
<td>0.657</td>
<td>27</td>
<td>.897</td>
<td>.131</td>
<td>0.546</td>
</tr>
<tr>
<td>A * SC</td>
<td>0.307</td>
<td>9</td>
<td>.971</td>
<td>.021</td>
<td>0.153</td>
</tr>
</tbody>
</table>

Table 4.10: Interactive effect of knowledge and similarity on the need-to-appearance recall ratio

_Hypothesis 5b: A service provider will report the most positive attitude evaluations for customers who (1) present a high level of product knowledge and when (2) the service provider categorizes the customer as an in-group member._

Hypothesis 5b was not supported. This hypothesis presumed an interaction between product knowledge and similarity for the attitude evaluation dependent variables. For hypothesis 5b, similarity was tested with both similarity scales – similarity
of appearance and similarity of computer knowledge. Data in table 4.1 provide no evidence for an interaction between knowledge and either of the similarity scales. No significant interactive effect between knowledge and similarity of appearance was demonstrated (F = 1.036). Likewise, there was no interactive effect demonstrated between script and similarity of computer knowledge (F = 1.267). In addition, an analysis of the four individual evaluative scales found no significant interactive effects (see table 4.11).

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Df</th>
<th>Significant A1</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge *</td>
<td>1</td>
<td>1.409</td>
<td>16</td>
<td>.173</td>
<td>.295</td>
<td>0.766</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.851</td>
<td>16</td>
<td>.625</td>
<td>.201</td>
<td>0.490</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.047</td>
<td>16</td>
<td>.426</td>
<td>.237</td>
<td>0.600</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.454</td>
<td>16</td>
<td>.958</td>
<td>.119</td>
<td>0.252</td>
</tr>
<tr>
<td>Knowledge *</td>
<td>1</td>
<td>1.285</td>
<td>4</td>
<td>.289</td>
<td>.097</td>
<td>0.371</td>
</tr>
<tr>
<td>Similarity of Appearance</td>
<td>2</td>
<td>1.319</td>
<td>4</td>
<td>.277</td>
<td>.099</td>
<td>0.380</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.469</td>
<td>4</td>
<td>.758</td>
<td>.038</td>
<td>0.151</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.245</td>
<td>4</td>
<td>.911</td>
<td>.020</td>
<td>0.099</td>
</tr>
</tbody>
</table>

Note 1: Dependent variable codes:
1 = Willingness to serve customer now (scale)
2 = Willingness to serve customer in future (1 item)
3 = Evaluation of customer’s appearance (scale)
4 = Evaluation of customer’s intelligence (scale)

Table 4.11: Knowledge and similarity interactive effect on individual evaluative scales

Finally, the interaction between knowledge and similarity was tested with the number of positive and negative comments as dependent variables (see tables 4.12 and 4.13). Again, no interactive effects were demonstrated. Thus, hypothesis 5b received no support.

116
<table>
<thead>
<tr>
<th>DV = Number of positive written comments</th>
<th>F</th>
<th>df</th>
<th>Significant At</th>
<th>etan$^2$</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge (A)</td>
<td>2.298</td>
<td>1</td>
<td>.132</td>
<td>.019</td>
<td>0.324</td>
</tr>
<tr>
<td>Similarity of Appearance (SA)</td>
<td>1.062</td>
<td>33</td>
<td>.395</td>
<td>.229</td>
<td>0.868</td>
</tr>
<tr>
<td><strong>Main Effects 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge (A)</td>
<td>0.224</td>
<td>i</td>
<td>.636</td>
<td>.002</td>
<td>0.076</td>
</tr>
<tr>
<td>Similarity of Computer Knowledge (SC)</td>
<td>0.930</td>
<td>37</td>
<td>.588</td>
<td>.207</td>
<td>0.840</td>
</tr>
<tr>
<td><strong>Relevant Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A * SA</td>
<td>0.978</td>
<td>27</td>
<td>.504</td>
<td>.183</td>
<td>0.777</td>
</tr>
<tr>
<td>A * SC</td>
<td>0.498</td>
<td>9</td>
<td>.874</td>
<td>.033</td>
<td>0.237</td>
</tr>
</tbody>
</table>

Table 4.12: Product knowledge/similarity interactive effect on the number of positive written comments

<table>
<thead>
<tr>
<th>DV = Number of negative written comments</th>
<th>F</th>
<th>df</th>
<th>Significant At</th>
<th>etan$^2$</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge (A)</td>
<td>0.384</td>
<td>1</td>
<td>.537</td>
<td>.003</td>
<td>0.094</td>
</tr>
<tr>
<td>Similarity of Appearance (SA)</td>
<td>0.774</td>
<td>33</td>
<td>.800</td>
<td>.178</td>
<td>0.697</td>
</tr>
<tr>
<td><strong>Main Effects 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge (A)</td>
<td>1.312</td>
<td>1</td>
<td>.254</td>
<td>.010</td>
<td>0.206</td>
</tr>
<tr>
<td>Similarity of Computer Knowledge (SC)</td>
<td>1.976</td>
<td>37</td>
<td>.003</td>
<td>.357</td>
<td>0.999</td>
</tr>
<tr>
<td><strong>Relevant Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A * SA</td>
<td>1.551</td>
<td>27</td>
<td>.658</td>
<td>.262</td>
<td>0.960</td>
</tr>
<tr>
<td>A * SC</td>
<td>0.495</td>
<td>9</td>
<td>.876</td>
<td>.033</td>
<td>0.235</td>
</tr>
</tbody>
</table>

Table 4.13: Product knowledge/similarity interactive effect on the number of negative written comments
Hypothesis 6a: A service provider will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when (1) the service provider categorizes the customer as an in-group member and (2) the customer presents a weak knowledge message.

Hypothesis 6a was not supported. This hypothesis presumed an interaction between product knowledge and similarity for the dependent variable, need-to-appearance recall ratio. Analysis was performed in a manner similar to hypothesis 5a. The necessary interactions for this hypothesis were not present as reported in table 4.10.

Hypothesis 6b: A service provider will negatively evaluate a customer who (1) is categorized as an in-group member and (2) presents a weak knowledge message.

This hypothesis was not supported. Hypothesis 6b presumed an interaction between product knowledge and similarity for the attitude evaluation dependent variables. Analysis was performed in a manner similar to hypothesis 5b. The necessary interactions for this hypothesis were not present as reported in tables 4.1, 4.11, 4.12, and 4.13.

Hypothesis 7a: A service provider will recall more details about a customer’s appearance, compared to details about the same customer’s needs, when (1) the customer is categorized as an out-group member and (2) the customer presents a strong knowledge message.

Hypothesis 7a was not supported. This hypothesis presumed an interaction between product knowledge and similarity for the dependent variable, need-to-
appearance recall ratio. Analysis was performed in a manner similar to hypothesis 5a. The necessary interactions for this hypothesis were not present as reported in table 4.10.

_Hypothesis 7b: A service provider will positively evaluate a customer when (1) the customer is categorized as an out-group member and (2) the customer presents a strong knowledge message._

This hypothesis was not supported. Hypothesis 7b presumed an interaction between product knowledge and similarity for the attitude evaluation dependent variables. Analysis was performed in a manner similar to hypothesis 5b. The necessary interactions for this hypothesis were not present as reported in tables 4.1, 4.11, 4.12, and 4.13.

_Hypothesis 8a: A service provider will recall more details about a customer's appearance, compared to details about the same customer's needs, when (1) the customer is categorized as an out-group member and (2) the customer presents a weak knowledge message._

Hypothesis 8a was not supported. This hypothesis presumed an interaction between product knowledge and similarity for the dependent variable, need-to-appearance recall ratio. Analysis was performed in a manner similar to hypothesis 5a. The necessary interactions for this hypothesis were not present as reported in table 4.10.

_Hypothesis 8b: A service provider will most negatively evaluate a customer when (1) the customer is categorized as an out-group member and (2) the customer presents a weak knowledge message._
This hypothesis was not supported. Hypothesis 8b presumed an interaction between product knowledge and similarity for the attitude evaluation dependent variables. Analysis was performed in a manner similar to hypothesis 5b. The necessary interactions for this hypothesis were not present as reported in tables 4.1, 4.11, 4.12, and 4.13.

**Hypothesis 9a:** Service providers who receive "mindfulness" training will recall more details about a customer’s needs, compared to details about the same customer’s appearance, regardless of in-group/out-group categorization and level of product knowledge.

This hypothesis was not supported. The training intervention had no significant influence on participants’ responses for the need-to-appearance recall ratio. An ANOVA was performed using the need-to-appearance ratio as the dependent variable (see table 4.14). The training main effect had no significant influence on the need-to-appearance ratio ($F = 0.000$) nor did any of the interactive effects of the training intervention.

<table>
<thead>
<tr>
<th>DV = Need-to-appearance ratio</th>
<th>$F$</th>
<th>df</th>
<th>Significant At</th>
<th>$\eta^2$</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>0.000</td>
<td>1</td>
<td>.986</td>
<td>.000</td>
<td>0.050</td>
</tr>
<tr>
<td>Knowledge</td>
<td>1.858</td>
<td>1</td>
<td>.198</td>
<td>.134</td>
<td>0.241</td>
</tr>
<tr>
<td>Similarity of Appearance (SA)</td>
<td>2.507</td>
<td>32</td>
<td>.046</td>
<td>.870</td>
<td>0.824</td>
</tr>
<tr>
<td>Similarity of Computer Knowledge (SC)</td>
<td>1.082</td>
<td>34</td>
<td>.466</td>
<td>.754</td>
<td>0.400</td>
</tr>
<tr>
<td><strong>Significant Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA * SC</td>
<td>3.979</td>
<td>18</td>
<td>.004</td>
<td>.879</td>
<td>0.980</td>
</tr>
</tbody>
</table>

Table 4.14: Training main and interactive effects on the need-to-appearance ratio
Hypothesis 9b: Service providers who receive “mindfulness” training will evaluate customers more positively regardless of in-group/out-group categorization and level of product knowledge.

This hypothesis was not supported. Training had no overall effect on the participants’ evaluation of the customer (F = 1.799, see table 4.1). Data from the individual evaluative scales (see table 4.2) demonstrate that the training intervention’s only influence was on the evaluation of the customer’s intelligence (F = 4.201). However, this influence was directly opposite to that predicted. Participants who received training rated the customer as relatively less intelligent (scale mean = 4.878) than those who did not receive training (scale mean = 5.043).

Two interactions had a significant influence on willingness to serve the customer now (see table 4.2). Training interacted with the customer’s dress (F = 4.200) and with the customer’s product knowledge (F = 5.528). For the interaction with the dress condition, results were again opposite to those predicted. For the formal and extreme dress conditions, participants without training were relatively more willing to serve the customer now (see table 4.15). For the casual dress condition, willingness to serve the customer was roughly equivalent.
<table>
<thead>
<tr>
<th>Dress</th>
<th>Training Condition</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>Received training</td>
<td>2.578</td>
<td>0.951</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>No training</td>
<td>2.811</td>
<td>0.933</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.694</td>
<td>0.941</td>
<td>60</td>
</tr>
<tr>
<td>Casual</td>
<td>Received training</td>
<td>2.389</td>
<td>0.845</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>No training</td>
<td>2.311</td>
<td>0.816</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.350</td>
<td>0.824</td>
<td>60</td>
</tr>
<tr>
<td>Extreme</td>
<td>Received training</td>
<td>1.567</td>
<td>0.439</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>No training</td>
<td>2.989</td>
<td>1.020</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.278</td>
<td>0.988</td>
<td>60</td>
</tr>
</tbody>
</table>

Note 1: Numbers approaching 1 indicate less willingness to serve in the future

Table 4.15: Descriptive statistics for the dress and training influence on willingness to serve the customer now

For the interaction with the knowledge manipulation, results were again opposite to those predicted. For the weak knowledge condition, participants without training were relatively more willing to serve the customer now (see table 4.16). For the strong knowledge condition, willingness to serve the customer was roughly equivalent.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Training Condition</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>Received training</td>
<td>2.356</td>
<td>1.009</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>No training</td>
<td>2.385</td>
<td>0.948</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.370</td>
<td>0.973</td>
<td>90</td>
</tr>
<tr>
<td>Weak</td>
<td>Received training</td>
<td>2.000</td>
<td>0.711</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>No training</td>
<td>3.022</td>
<td>0.998</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.441</td>
<td>1.003</td>
<td>90</td>
</tr>
</tbody>
</table>

Note 1: Numbers approaching 1 indicate less willingness to serve in the future

Table 4.16: Descriptive statistics for the knowledge and training influence on willingness to serve the customer now
Hypothesis 9b was also tested using the number of positive and negative comments as dependent variables. These tests found none of the predicted training influences and thus provided no support for hypothesis 9b. Tables 4.17 and 4.18 present this data.

The only significant finding (table 4.17) was a small training main effect on the number of positive written comments ($F = 3.986$). Yet again, this small influence was the opposite of the predicted effect. Participants who did not receive training wrote a slightly larger number of positive comments (scale mean $= 2.46$) than participants who did receive training (scale mean $= 2.32$).

<table>
<thead>
<tr>
<th>DV = Number of positive written comments</th>
<th>F</th>
<th>df</th>
<th>Significant At</th>
<th>eta²</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>3.986</td>
<td>1</td>
<td>.049</td>
<td>.044</td>
<td>0.506</td>
</tr>
<tr>
<td>Knowledge</td>
<td>2.997</td>
<td>1</td>
<td>.087</td>
<td>.034</td>
<td>0.402</td>
</tr>
<tr>
<td>Similarity of Appearance</td>
<td>1.395</td>
<td>33</td>
<td>.112</td>
<td>.349</td>
<td>0.945</td>
</tr>
<tr>
<td>Main Effects 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>0.002</td>
<td>1</td>
<td>.968</td>
<td>.000</td>
<td>0.050</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.024</td>
<td>1</td>
<td>.878</td>
<td>.000</td>
<td>0.053</td>
</tr>
<tr>
<td>Similarity of Computer Knowledge</td>
<td>0.966</td>
<td>37</td>
<td>.533</td>
<td>.249</td>
<td>0.841</td>
</tr>
</tbody>
</table>

Table 4.17: Training effect on the number of positive written comments
Table 4.18: Training effect on the number of negative written comments

Table 4.19 presents a summary of all hypothesis tests:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Similarity related to attitude evaluation</td>
<td>Partially supported</td>
</tr>
<tr>
<td>H2a</td>
<td>Similarity related to product need recall</td>
<td>Not supported</td>
</tr>
<tr>
<td>H2b</td>
<td>Dissimilarity related to appearance recall</td>
<td>Partially supported</td>
</tr>
<tr>
<td>H3</td>
<td>Product knowledge related to need-to-appearance ratio</td>
<td>Partially supported</td>
</tr>
<tr>
<td>H4</td>
<td>Product knowledge related to attitude evaluation</td>
<td>Partially supported</td>
</tr>
<tr>
<td>H5a, H6a, H7a, and H8a:</td>
<td>Similarity/product knowledge interaction affects need-to-appearance ratio</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5b, H6b, H7b, and H8b:</td>
<td>Similarity/product knowledge affects evaluation of the customer</td>
<td>Not supported</td>
</tr>
<tr>
<td>H9a</td>
<td>Training related to need-to-appearance ratio</td>
<td>Not supported</td>
</tr>
<tr>
<td>H9b</td>
<td>Training related to attitude evaluation</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

Table 4.19: Summary of hypothesis tests
CHAPTER 5

DISCUSSION

5.1 Results

Overall, results were not supportive of the hypotheses. Although there were some significant findings, no hypothesis was fully supported and most hypotheses were not supported.

5.1.1 Similarity effects

Participants categorized their perceived similarity to the customer on two dimensions, (1) appearance and (2) computer knowledge. Similarity did influence some measures of attitude toward the customer. Similarity also influenced the number of negative comments the participant wrote about the customer. Overall, however, the similarity influence was not as significant as predicted.

Both similarity measures influenced the participants’ attitudes toward the customer, but the areas of influence were not surprising. Appearance similarity only influenced the evaluation of the customer’s appearance; relative similarity between the participants and the customer lead to relatively more favorable evaluations. Computer
knowledge similarity only influenced the evaluation of the customer's intelligence; relative similarity between the participants and the customer lead to relatively more favorable evaluations.

The more salient measures of the participants’ willingness to serve the customer now, and in the future, were not influenced by either similarity measure. It appears from this sample that, contrary to prediction, a service provider is able to look beyond appearance differences and product knowledge differences and still possess a relatively consistent attitude about serving the customer.

Participants who rated the customer as relatively dissimilar, based on computer knowledge, did write a significantly larger number of negative comments about the customer. Berscheid (1966) also observed that a significant amount of attitude change occurred when people believed that the persuaders’ opinions were similar or dissimilar to their own on a communication topic. In the context of the current study, however, this result is somewhat meaningless. It does appear that a service provider negatively evaluates a customer who knows comparatively less about the product. It also appears that the service provider then categorizes a customer with less product knowledge as an out-group member. However, as reported earlier, it also appears that the service provider is still willing to serve that customer, so out-group categorization based on product knowledge appears to not produce a negative influence on customer service.

Likewise, participants who perceived themselves as relatively more similar based on appearance recalled significantly fewer details about the customer’s appearance. Thus, a service provider may categorize a customer that is similar in appearance as an in-
group member and expend less cognitive effort memorizing details about that customer's appearance. However, in-group categorization based on appearance does not appear to produce a positive effect on customer service since there is no corresponding change in willingness to serve the customer.

A service provider's ability to recall specific customer needs is perhaps the most important factor in customer service. Results indicated that the relative similarity between the service provider and the customer did not significantly influence the recall of customer needs; neither appearance similarity nor computer knowledge similarity were significant. Again, this result suggests that customers receive consistent service from service providers regardless of service provider-customer similarity.

5.1.2 Product knowledge effects

Product knowledge was operationalized with two distinct scripts. In one script the customer frequently used computer terminology. In the other script the customer used no computer terminology, and when there was an attempt to use computer terminology, it was used incorrectly. As predicted, product knowledge significantly influenced (1) the evaluation of the customer's intelligence and (2) the need-to-appearance recall ratio. (The need-to-appearance ratio is the ratio of product needs recalled compared to appearance items recalled; this could be an important aspect of customer service.) Overall, the customer's level of product knowledge did not produce a significant influence on attitude toward the customer.

Not surprisingly, there is a positive relationship between product knowledge and the participants' evaluation of the customer's intelligence. Participants who viewed the
strong script rated the customer as more intelligent than participants who viewed the weak script. However, the more salient measure of willingness to serve the customer now was not significantly influenced by product knowledge. In addition, willingness to serve the customer in the future was negatively related to product knowledge. Participants were more willing to serve the weak knowledge customer in the future. This suggests that a customer’s lack of product knowledge may evoke more helpful behaviors from a service provider. A service provider, sensing that the customer really needs help with the purchase, may respond favorably to assisting that person in the future.

Participants who viewed the customer with the strong script produced a significantly larger need-to-appearance ratio compared to participants who viewed the customer with the weak script. This result suggests a positive relationship between a customer’s product knowledge and the level of customer service received. In the current study it appears that participants either could not remember, or could not decipher, the details of what the customer with the weak script wanted for his computer. In an actual retail setting the customer would have had to repeat himself to explain what he wanted, or, the service provider may have suggested the wrong item. In either case, customer service could be considered worse than the service received by the customer with a strong knowledge of the product.

However, the distinct levels of service described in the previous paragraph might not be the result of intentional acts by the service provider. The need-to-appearance ratio was greater than one for both scripts (i.e., participants in both knowledge manipulations recalled more customer needs than customer appearance items). This result, which was
opposite to prediction, suggests that the participants attempted to provide good customer service regardless of the customer's product knowledge. Despite the distraction associated with the weak knowledge script, participants who viewed the weak knowledge customer still recalled more product needs than appearance details. This suggests that the participants gave the customer their attention and did their best to focus on his product needs.

Overall, the participants provided what could be considered reasonable customer service in both product knowledge conditions. This result may indicate that, although service providers evaluate a customer's intelligence based on product knowledge, this evaluation does not lead to poor customer service and may even increase service.

5.1.3 Training effects

The training manipulation did not produce any of the predicted effects. When training did have an influence, the influence was opposite to prediction.

Training failed to improve the need-to-appearance ratio. Training did not significantly improve the need-to-appearence ratio as a main effect. Training also failed to influence the need-to-appearance ratio as an interactive effect with (1) the customer's strength of product knowledge and (2) perceived similarity to the customer.

In addition, training had no influence on the participants' attitude toward the customer on three of four measured dimensions. Training did not influence the participants' willingness to serve the customer now or in the future, nor did training
influence the evaluation of the customer’s appearance. Training did influence the participants’ evaluation of the customer’s intelligence, but in a direction opposite to that predicted – those that were trained rated the customer as less intelligent.

Finally, training failed to positively influence the number of comments the participants wrote about the customer. Training had no significant influence on the number of positive written comments. Ironically, training negatively influenced the number of negative comments provided – participants who received training wrote a larger number of negative comments than untrained participants.

These results should not be interpreted as an argument against sales training or customer service training. The failure to find any significant training influences is most likely due to limitations of the research methodology. These limitations are discussed later in this chapter in section 5.1.2.

Findings of a recent study by Petty, Wegener, and White (1998) further suggest that the failure of the training methodology in the current study probably resulted from limited research methods. Their 1998 study examined flexible correction processes in social judgment situations. In their study a manipulation of source likeability had an impact on attitudes when no instruction to remove the bias was present. However, when people were asked to remove any bias from their judgments (similar to the training manipulation in the current study), the effect of the source likeability manipulation disappeared.
5.1.4 Interactive effects

Hypotheses 5a through 8b all presumed an interactive effect between similarity and product knowledge. Four of these hypotheses predicted that the similarity-product knowledge interaction would affect the need-to-appearance ratio. The other four hypotheses predicted that the similarity-product knowledge interaction would influence the participants' attitudes toward the customer. In the current study no significant interactive effects were demonstrated between (1) appearance similarity and product knowledge quality and (2) computer knowledge similarity and product knowledge.

The failure to find interactive effects between these variables is somewhat puzzling. Overall, product knowledge and similarity based on computer knowledge produced the strongest main effects of all of the manipulations. Perhaps the product knowledge manipulation, combined with the participants' desire to provide good customer service, influenced participants to focus intently on the customer's specific needs regardless of similarity.

A consistent willingness to serve, across the sample, may also explain the lack of support for hypotheses 5b. This hypothesis predicted that, due to interactive effects, service providers that viewed a similar customer with a strong script would have the most positive attitudes toward the customer. This hypothesis appears straightforward and probably holds the most face validity of any in the study. However, it was not supported. As discussed, it appears that the sample in the current study tempered their attitudinal responses in favor of a bias toward good customer service by focusing cognitive effort on product need recall.
5.1.5 Summary of results

While the current study’s hypotheses were generally not supported, there were some interesting results. Overall, it appeared that service providers did use readily accessible customer appearance cues to categorize customers. They focused on appearance cues that the customer could control – namely, the customer’s style of dress. Service providers also appeared to categorize customers based on the strength of the customer’s script. The customer’s appearance and the customer’s strength of knowledge guided the service provider to categorize the customer into an in-group or out-group on each dimension. However, this categorization did not appear to significantly affect the service provider’s overall attitude toward the customer or the service provider’s recall of product need and customer appearance details. Overall, in the current study in-group/out-group distinctions did not appear to significantly affect customer service.

The training manipulation also failed to effect customer service. As discussed, this was probably due to problems with the method. However, Petty, Wegener, and White (1998) found that a correction instruction (similar to the training manipulation in the current study) did not alter the impact of an argument quality manipulation on attitudes. They suggested that efforts aimed at correction are conceptually different from effort aimed at processing a message in general. The current study found that a product knowledge manipulation had some influence on the participants’ attitudes toward the customer. However, the training manipulation had no effect. Thus, the current study does add some support to Petty, Wegner, and White’s argument.
5.2 Limitations

5.2.1 Conceptual limitations

The current study was largely dependent upon the participants categorizing the customer into an in-group or an out-group. However, only two cues were provided for participants to make such categorizations – appearance and product knowledge. These two manipulations were thought to be sufficient to invoke categorization and subsequently affect the participants’ attitudes toward the customer and the participants’ attention to the customer’s needs. While it appears that categorization did occur, the categorization did not subsequently influence the participants’ attitude toward the customer or the participants’ attention to the customer’s needs. This calls into question whether two categorization cues were sufficient since, in previous research, both in-group and out-group categorizations have been shown to affect both attitude and behavior toward a target (Brewer, 1985, 1988; Brewer & Kramer, 1985).

If the two categorization cues of appearance and product knowledge were sufficient, then perhaps some super-ordinate goal was introduced that reduced or eliminated any categorization influences. A super-ordinate goal transcends in-group/out-group distinctions and focuses the individuals involved on some common objective (Wilder, 1978). Wilder found that the introduction of a super-ordinate goal could overcome the effects of in-group/out-group categorization. Participants may have created their own super-ordinate goal – a desire to help the customer make a good purchase decision.
Another possible explanation stems from Petty, Fleming and White (1999) who argue that people scrutinize messages from stigmatized sources in order to guard against possible unfair reactions. In the current research, the vast majority of participants identified themselves as dissimilar (mean similarity scores less than four) to the customer. The current results indicate that the activation of schema relevant to a relatively similar or relatively dissimilar customer did not significantly influence cognitive processing of the customer’s unique product needs. However, as Petty, Fleming and White suggest, participants may have categorized the customer as an out-group member (a stigmatized source) and subsequently focused intently on his needs to guard against unfair reactions. Unfortunately, the current study made no direct measures to assess why the participants gave their attention to the customer and why they evaluated him as they did.

Petty, Fleming, and White’s (1999) research suggests an additional limitation of the current study with regard to the similarity effect. In their 1999 study, source stigmatization increased message scrutiny only among those who were low in prejudice toward the stigmatized source. The current research did not test for participants’ prejudice, so there is no way to test for any possible prejudice effects.

Another conceptual limitation was the inability of the current study to explain what influenced the participants’ willingness to serve the customer. Willingness to serve was not influenced by the participants’ perceived similarity to the customer or the customer’s product knowledge. In addition, participants in all conditions provided fairly low willingness to serve scores. On a seven-point scale with one representing “not
willing,” four representing “neither willing nor unwilling,” and seven representing “very willing,” the mean willingness to serve now scale score, for all 180 participants, was only 2.44. The overall mean for willingness to serve in the future question was only 2.58.

There are at least two probable explanations for the low willingness to serve scores: (1) There was something about this customer, across conditions, that evoked a low willingness to serve and/or (2) there was something about the sample, across conditions, which predisposed them to possess a low willingness to serve. Unfortunately, the current study made no direct measures that could explain the generally low scores on the willingness to serve scales.

Another conceptual limitation involved the customer’s style of dress. The current study used the dress manipulation (the customer wore either a suit, casual clothing, or extreme clothing) as a simple appearance cue. The intent was for the participants to evaluate the customer based on appearance and subsequently categorize the customer as a member of an in-group or an out-group. As discussed, there did appear to be some categorization based on appearance but that categorization did not subsequently influence customer service. However, while appearance similarity produced mostly insignificant results, the dress manipulation did demonstrate significant main and interactive effects on customer service.

Of particular interest, the customer’s style of dress produced a main effect on the participants’ willingness to serve the customer now (F = 8.610, see table 4.2). The customer’s style of dress also demonstrated significant interactive effects with the training manipulation (F = 4.200) and the product knowledge manipulation (F = 10.652);
both of these interactions influenced the participants’ willingness to serve the customer now. In all three cases, participants were most willing to serve the formally dressed customer and least willing to serve the extremely dressed customer. The customer’s style of dress also influenced the participants’ evaluation of the customer’s intelligence. Ironically, participants rated the extremely dressed customer as the most intelligent and the formally dressed participant as the least intelligent.

Knowing that a customer’s style of dress may have these types of influence is rather useless without an understanding of why the influence exists or what can be done about it. Unfortunately, the dress manipulation was not explicitly a part of any hypothesis or hypothesis test so the current study can offer no further explanation.

The dress manipulation’s influence does raise many questions that cannot be answered by the current study. There are many probable explanations for why the customer’s style of dress influenced the participants’ willingness to serve the customer. Two explanations are offered here: (1) The formally dressed customer appeared wealthy and thus more likely to actually purchase a computer and/or (2) the extremely dressed customer appeared threatening in some way. The current study made no direct measures to explain why dress had such a significant impact.

Another limitation stems from the fact that the current study loosely builds on Petty and Cacioppo’s (1981, 1984, 1989) Elaboration Likelihood Model (ELM). However, two key elements of the ELM and related research were not included in the
current study: (1) participants’ need for cognition, and (2) participants’ need for evaluation. Including these three variables in the current study may have helped further explain both supportive and non-supportive results.

The current study did attempt to create a moderate to high level of involvement by casting the participants in a specific role, explaining the importance of the role, and deceptively indicating that participants’ sales skills would be evaluated. An increase in involvement is associated with an increase in the importance of message arguments because people have a better framework for things that are related to the self (Petty and Cacioppo, 1979; Petty, Cacioppo, and Goldman 1981; Petty Cacioppo and Schumann, 1983). However, in the current study there was no measure to assess the effectiveness of this manipulation. Furthermore, the current sample was not tested and split into low and high elaboration conditions. This is significant because a recent study by Petty, Wegener, and White (1998) found that under low elaboration, a manipulation of source likeability had an impact when no correction instructions were provided. However, under high elaboration a manipulation of source likeability had no impact when no correction instructions were provided. The current study was unable to make similar assessments.

The current study also failed to test the participants’ need for cognition and need for evaluation. Need for cognition refers to an individual’s tendency to engage in and enjoy cognitive exercises that require some effort (Cacioppo and Petty, 1982: Cacioppo, Petty, Feinstein, and Jarvis, 1996). Need for cognition has been shown to affect the process of attitude change in advertising when no explicit evaluation instructions were
provided (Haugtvedt, Petty, and Cacioppo, 1992). It has also been demonstrated that individuals high in need for cognition are more likely to think about and elaborate on issue-relevant information when forming attitudes compared to individuals who are low in need for cognition (Cacioppo, Petty, Kao, and Rodriguez, 1986). An 18-item version of the need for cognition scale has been shown to be reliable and valid (Cacioppo, Petty, and Kao, 1984) and could have been included in the current study.

Need for evaluation offers five alternative information-processing models that relate memory for evidence to judgments based on the evidence. These include: independent processing, availability, biased retrieval, biased encoding, and incongruity-biased encoding (Hastie and Park, 1986). Including a need for evaluation measure would have strengthened the current study. A need for evaluation measure would have allowed a more detailed analysis of at least three key elements, (1) biased information retrieval by the participants, (2) biased information encoding by the participants, and (3) incongruity-biased encoding by the participants when viewing conditions such as the formally-dressed customer presenting the weak knowledge script.

Beyond the limitations associated with the ELM, the current research also failed to measure trait anxiety. DeBono and McDermott (1994) considered this variable by exposing participants who were either high or low in trait anxiety to a persuasive message from either an attractive or unattractive source who used either strong or weak arguments. High-anxiety individuals were persuaded by the attractiveness of the source,
regardless of argument quality. Low-anxiety individuals were persuaded by the argument quality, regardless of source attractiveness. This research suggests yet another variable that would have been relevant and useful in the current study.

Finally, self-monitoring behavior was not measured in the current study. Self-monitoring has been shown to influence the interaction between a customer and a service provider. Fine and Schumann (1992) assessed the impact of self-monitoring on salespersons’ perceptions in a salesperson-customer interaction. The authors predicted that high self-monitoring salespeople would use cues from the customer to guide their subsequent behavior. Results of the 1992 study suggest that there is an interactive effect between the salesperson’s personality and the customer’s personality. This interaction affected the salesperson’s perception of the customer. Self-monitoring would have been an interesting and valuable addition to the current study.

5.2.2 Methodological limitations

Participants in the current study were told that they were being evaluated on their ability to function as computer salespeople. This deceptive explanation for the research may have been the biggest methodological limitation. Participants may have tempered their attitudinal responses to provide socially desirable responses in line with what they believed to be the evaluator’s expectations. In other words, the participants did not want to rate the customer too harshly on the attitude scales because that might have exposed a personal bias and indicated that the participant was not suited for a sales job. Sharma and Levy encountered a similar bias (1995). However, in the current study all participants were negative in their evaluation of willingness to serve the customer. This result seems
to indicate that socially desirable responses were not a problem on that particular measure. No such evidence exists, however, for the participants’ evaluations of the customer’s appearance and intelligence. Thus, overall, faking may have been a problem.

Likewise, participants may have focused intently on the customer’s product needs, across conditions, because most individuals could probably guess that an evaluation of sales ability would include questions related to what the customer wants. This may explain why similarity had no significant influence on the number of product needs recalled by participants.

Frei (1998) found that respondents to a customer service orientation battery varied in their ability to fake results. In that study participants completed the battery twice. On one occasion participants were told to answer honestly and on another occasion the same participants were told to provide answers as if they were applying for a job. Results indicate that scores on the honest scales were significantly correlated with supervisors’ ratings of customer-service related performance whereas scores on the faked scales did not show this relationship. There were also significant differences in the rank ordering of participants between the scales.

There is no way to separate honest and faked results in the current study. Thus, there is no way to determine if socially desirable responses presented an unaccounted for variable. Nevertheless, the results of the current study may be at odds with Frei’s findings. In the current sample many participants had little or no retail sales experience. If participants did in fact provide socially desirable answers, it appears that most people knew how to act in the given sales situation and may have successfully “faked” results.
The lack of rigor in the training manipulation is another major limitation. The short primer on “mindfulness” in communication is probably not a fair proxy for what many organizations provide in terms of listening skills training and customer service training. In addition, the current study did not include any manipulation check for the training manipulation. The current research could have included excerpts from actual company training literature or even whole training programs, if possible with some appropriate manipulation check. This would have substantially added to the realism and validity of the training manipulation.

The current study also could have been strengthened by testing a broader concept of customer service instead of one simple element of service. The need-to-appearance ratio could have been but one element in a larger test of service including items such as the number of products presented to the customer and the estimated amount of time the service provider would spend with the customer.

The use of new, study-specific surveys may have limited the current study. There did not appear to be any standardized questionnaires available to assess the variables of interest, so new surveys were created. Of course, these new surveys cannot demonstrate repeated measures of validity and reliability and thus there are questions of accuracy in the research results. It may have been better to modify existing standardized attitude measures that have a proven track record of validity and reliability.

Methodological issues may have directly contributed to some insignificant findings. Hypothesis three predicted that the need-to-appearance ratio would have a positive relationship with the customer’s product knowledge. This hypothesis was only
partially supported. However, the limited support may have resulted from an overstatement of the predicted ratio relationships. It was probably realistic to predict that the need-to-appearance ratio would be greater than one for participants who viewed the strong knowledge script. In fact, that relationship was supported. However, it may not have been realistic to expect the need-to-appearance ratio to be less than one for participants who viewed the weak knowledge script.

The rationale is as follows. The deceptive explanation for the research was to evaluate a participant’s ability to serve as a salesperson and the majority of the customer’s script was related to the customer’s product needs. Thus, it stands to reason that participants would list significantly more product needs than appearance details—even in the absence of any other manipulation. In addition, there were fifteen total need items that could have been identified compared to only ten appearance items per condition.

Variations in the participants’ ability to memorize may have introduced another unaccounted for variable. It is impossible to know if some participants really paid attention to the customer but simply forgot what the customer wanted by the time they reached that part of the questionnaire. In an actual sales exchange, if the service provider forgets something he or she simply asks the customer.

Hypotheses related to similarity also may have suffered from methodological problems. Despite the randomized sample and the presence of many white males in the sample, most participants did not perceive themselves as similar to the customer based on appearance. Although relative similarity was tested in the hypotheses, only 25 of the 180
participants ranked the customer on the “similar” side of the seven-point scale. Due to the research design, it is difficult to assess why. Research results may have been influenced by non-verbal cues that were not assessed in the research. These could include the customer’s tone of voice, weight, hair color, hairstyle, and eyeglasses, among others.

Another possible methodological weakness was a failure to alter the flow of the customer’s presentation scripts. The customer, in both strong and weak product knowledge manipulations, opened with a short discussion about the store and he discussed his generally positive impressions of the store. This presentation was identical in both script conditions and preceded the portion of the script where the customer communicated his unique product needs. It may be that any participant emotional responses evoked by the customer’s appearance were overcome in the short period while this portion of the script was being presented. Thus, by the time the customer began presenting his unique needs, the participant was back on-task, listening to the customer and memorizing the customer’s needs. Since the flow of the script was not altered, the aforementioned effect could not be tested.

5.2.2.1 Limitations of the laboratory setting

In general, using a laboratory study to examine a service provider-customer interaction presents many problems. In addition to the potential “faking” problems discussed earlier, the current study lacks one important variable – a true interaction. In the current design, the participant simply looked at and listened to a customer and tried to remember as much as possible about the encounter. In an actual sales exchange, the
service provider would have asked at least some follow-up and probing questions to learn more about the customer and his needs. Thus, a lot of realism is given up in the current design.

Transferability of results is also an issue. The current study attempted to create a realistic computer store setting in the laboratory. Thus, findings may not transfer beyond the domain of a retail computer store. About one-half of the hypothesis tests focused on the operationalization of computer product need recall in a computer sales setting.

On the other hand, given the limitations of the laboratory setting, every attempt was made to make the current study as realistic as possible. In the current study, a videotaped customer was utilized. The use of a videotaped customer was deemed preferable to written scripts and audiotaped speakers for a variety of reasons. Although scripts presented in a written and audiotape format, along with written descriptions of the target’s appearance, have been utilized in previous research (i.e., Babin, Boles, & Darden, 1995; Bellizzi, Klassen, & Belonax, 1989), it is easy to question the richness of the visual stimuli when the participants simply read a description of the target. In the current study, the videotaped customer remained the same during every presentation. The use of a videotaped customer also forced participants to process visual and verbal cues simultaneously – just as in a field setting.

In addition to the use of a videotaped customer to increase realism, the current study also attempted to increase participant involvement. Petty and Cacioppo (1979) have demonstrated the importance of high participant involvement in the evaluation of high and low argument quality messages. In the current research, participants were
informed that the experiment was to test whether anyone, given a brief primer on computer terminology, could function effectively as a computer salesperson. The students were told that they were one of a select group whose input would have a direct influence on the training provided at a major computer retail chain. This statement should have increased the level of participant involvement and thus results may have been more consistent with results from actual salespeople whose career may be dependent on good customer service. According to Huddleston (1985), subjects given a logical explanation for their participation are less prone to create their own hypotheses and more willing to comply with the instructions presented in the experiment. However, as discussed, this deception may not have only increased involvement, it may have influenced results by evoking socially desirable responses.

In terms of measurement, direct written assessment was utilized to collect some data in the current study. The advantages offered by a written assessment of the participants' product recall and attitude evaluations included convenience, objectivity and replicability. Information gathered within the laboratory did mitigate some of the unaccounted for external influences that might affect a participant's behavioral responses in a field setting. Measures were worded in such a manner so that the individual participants could express their attitudes with respect to the customer, and the literature suggests that those intentions correlate positively with subsequent behaviors (Fishbein & Ajzen, 1974). Overall, the methodology employed in the current study attempted to increase the probability that any of the influences attributed to the independent variables would also be applicable in non-laboratory settings.
Nevertheless, service provider-customer interactions do take place in a field setting with all of the inherent distractions that go with that environment. These interactions are truly two-way interactions as well. Despite the best attempts to make the current study realistic, it still fell short.

5.3. Implications

In the current study, no hypothesis was fully supported and most hypotheses were not supported. However, there were some significant findings that suggest theoretical and/or practical implications

5.3.1 Theoretical implications

Before placing too much emphasis on the theoretical implications of the current study, it must be pointed out that there are many conceptual and methodological limitations in the current research. These limitations were addressed in section 5.2.

In the current study, the need-to-appearance ratio was greater than one across conditions. In other words, the vast majority of participants recalled more product need details than customer appearance details. This suggests that participants were able to look beyond appearance differences, and even look beyond the weak knowledge script, to focus on the customer’s unique product needs. The current study’s results are quite different than the results of Babin, Boles and Darden’s (1995) research. In that 1995 study, subjects recalled more person information (relative to product information) when the salesperson was very typical or very atypical. It appears from the 1995 study that the participants’ evaluations of the target influenced their ability to recall specific product information and caused them to focus on the target’s appearance. This may suggest a
need for additional research to resolve the apparent discrepancy in findings between the 1995 study and the current study. The current laboratory study, with major modifications, could be used to that end.

One major difference between Babin, Boles and Darden’s research and the current study is that the latter contains a training manipulation and the former does not. Training is an important issue, but that manipulation would be omitted from the new study in order to better replicate Babin, Boles and Darden. A new study with a training manipulation is proposed in section 5.3.2

The first major modification for the new study would be to re-think the deceptive explanation for the experiment. In the current study, participants were informed (deceptively) that they would be evaluated on their ability to serve as a computer salesperson. The expectation of an evaluation may have lead participants to provide socially desirable responses. The new study will not create this expectation of evaluation. Participants will be informed that they are about to view a video of a customer in a computer store and that the video may be used in the future as an actual sales training video. Participants will be told that their reactions to the video will help determine if it is a good video for training purposes. Participants will be told that they will watch the video and then answer a series of questions about it.

The next major modification would be to more carefully balance the number of appearance details with the number of product need details. An imbalance between appearance cues and product needs was a limitation of the current study and also appears to be a limiting factor in Babin, Boles, and Darden’s work. One way to derive a balance
between appearance cues and product needs would be to run multiple pilot tests. The
customer's appearance would be modified and the scripts re-written with a different
number of product needs until a balance in the number of appearance cues and product
needs was achieved. It would be important to use videotaped customers in the pilot tests
rather than written descriptions because the videotape presents every possible visual cue.

One surprising result of the current study was the number of participants who
discussed the customer's weight and hair color. These were not thought to be important
variables because the customer seemed to be of average weight and black hair did not
seem unusual. Unfortunately, in the current study there was only one pilot test and that
test provided only written descriptions of the customer. Multiple pilot tests with
videotaped customers would have strengthened the current study and it is important to
use multiple pilot tests in future extensions of the current study.

The future study should include multiple customers. Although each participant
would only view one customer, a diverse set of customers would offer at least two
advantages over the current study: (1) The future study could be directly compared with
other studies, like Babin, Boles and Darden's, which used multiple targets and (2) other
appearance similarity effects in addition to style of dress (such as age, race, and gender)
could be studied. The inclusion of female, African-American, and older customers would
probably improve the likelihood that more participants would identify the customer as
"similar" and thus may provide different results than the current study.

The new study should utilize existing questionnaires that have proven validity and
reliability. Although both of the similarity scales used in the current research provided
fairly strong internal reliability estimates, they should be supplemented with additional scales that have been used in other studies. In addition, the new study should use some of the numerous attitude measures and prejudice surveys that are available.

It would seem that the product knowledge manipulation in the current study was acceptable. Of course, future studies would have to update the scripts to reflect current state-of-the-art computer products. This implies additional work in the pilot tests.

The inclusion of measures for trait anxiety, self-monitoring behavior, elaboration likelihood, need for cognition, and need for evaluation would add a significant amount of explanation to the results. Measures of trait anxiety and need for evaluation would be particularly important to resolve the discrepancy between the current study and Babin, Boles and Dardin's research. Neither of these studies discussed specific causal influences that led participants to focus on specific target attributes. Including need for evaluation would allow for measures of biased retrieval, biased encoding, and incongruity-biased encoding (Hastie and Park, 1986). These additional measures would add a great deal of explanation to the findings.

The current study could be extended in a second way. This new study would focus on the significant influence demonstrated by the customer's style of dress. These findings were lost in the context of the present study but are certainly compelling given the strength of the findings. Of particular interest, the current study found that the participants' willingness to serve the customer was significantly influenced by the customer's style of dress. Participants were most willing to serve the formally dressed customer and least willing to serve the extremely dressed customer. The participants'
evaluation of the customer’s intelligence was also influenced by the customer’s style of
dress. Ironically, participants rated the extremely dressed customer as the most
intelligent and the formally dressed participant as the least intelligent. The
aforementioned influences of the dress condition were main effects and thus were
independent from the similarity and knowledge manipulations.

There are many probable explanations for the influence of the customer’s style of
dress. Two explanations are offered here: (1) The formally dressed customer appeared
wealthy and thus more likely to actually purchase a computer and/or (2) the extremely
dressed customer appeared threatening in some way. The current study made no direct
measures to explain why dress had such a significant impact.

A new study to test the dress effect could use the existing customer video, but to
eliminate the product knowledge variable, only the strong script segments would be used.
This new study could easily incorporate many of the improvements suggested earlier in
this section. The new study could incorporate the same deceptive explanation as
described earlier in this section and the additional scales such as need for evaluation and
trait anxiety could be included. Beyond those modifications, changes would be made to
the open-ended questions.

In the current study, participants were asked to write their thoughts and feelings
about the customer. Then participants were instructed to code each comment as positive,
negative or neutral. In the new study, participants would not self-code their written
comments. This may help reduce socially desirable responses. In addition, an open-
ended question would be added that would ask participants to write their specific
thoughts and feelings about the customer’s appearance. Again, these written comments would be coded as positive, negative or neutral but the investigators would do the coding. Another new open-ended question would ask, “What specific elements of this customer’s appearance did you notice? After you list each appearance item, describe how you think you would respond to that item.” Finally, more extensive bipolar adjective pairs would be included.

The new research would have two main goals: (1) to replicate the findings of the current study and (2) to find out why the participants were influenced by different clothing styles.

5.3.2 Practical implications

One important finding of the current study, with practical application in a retail setting, is that the participants who viewed the customer with strong knowledge produced a significantly larger need-to-appearance ratio compared to the participants who viewed the customer with weak knowledge. This result suggests a positive relationship between a customer’s product knowledge and the level of customer service received. In the current study it appears that participants either could not remember, or could not decipher, the details of what the customer with the weak script wanted for his computer. In an actual retail setting the customer would have had to repeat himself to explain what he wanted, or, the service provider may have suggested the wrong item. In either case, customer service could be considered worse than the service received by the customer with a strong knowledge of the product.
In an actual computer store, many customers probably present a knowledge level comparable to the weak knowledge script used in the current study. Salespeople obviously deal with a variety of customer knowledge levels. Thus, it is important for retail salespeople, managers, and trainers to be aware of this tendency for service providers to recall more product needs when the customer really knows what he or she is talking about. The weak knowledge customer may intend to spend as much or more than the high knowledge customer, they just do not know how to succinctly describe their needs. Salespeople will probably need to spend more time with these weak knowledge customers to really understand what they want. The important issue is to make service providers aware that product knowledge is not necessarily correlated with intention to purchase.

A related finding with a practical implication is that the participants’ similarity to the customer, based on computer knowledge, influenced the participants’ evaluation of the customer’s intelligence. In other words, when a service provider and a customer have similar levels of computer knowledge, the service provider rates the customer as relatively more intelligent.

This result is important for sales practitioners. As previously discussed, service providers probably need to spend more time and effort with customers lacking in product knowledge – or with customers with relatively less knowledge. However, if the service provider has categorized the customer as less intelligent, he or she might be less motivated to spend the necessary time with that customer.
Furthermore, sales trainers and sales managers must explore two other potential problems related to a negative intelligence evaluation. The salesperson may (1) oversell the customer by suggesting an expensive model that is not needed (i.e., "rip-off" the less intelligent customer) and/or (2) undersell the customer by suggesting a product with fewer features when an upgraded model might be more appropriate. In the first case, the organization may suffer in the long term from what are perceived as deceptive sales practices. In the second case, the organization may miss opportunities to legitimately upgrade customers to higher margin products. Thus, it is important to make service providers aware (1) of their tendency to make evaluations of the customer’s intelligence and to explain the negative ramifications of over- or underselling the customer and (2) that, again, product knowledge is not necessarily correlated with intention to purchase.

Another important practical implication of the current study is the likelihood that participants “faked” their answers to provide socially desirable responses. Participants in the current study were told that they were being evaluated on their ability to function as computer salespeople. That deceptive rationale is similar to the “critical incident” technique used in many employment interviews. In the critical incident technique, the interviewee is presented with some common on-the-job situations and then asked to describe how he or she would respond.

In the current study, the ‘threat’ of evaluation may have led participants to provide socially desirable responses in line with what they believed to be the evaluator’s expectations. In other words, the participants would not want to rate the customer too
harshly because that might have exposed a personal bias and indicated that the participant was not suited for a sales job. Sharma and Levy encountered a similar bias (1995).

Likewise, in the current research participants may have focused intently on the customer’s product needs, across conditions, because most individuals could probably guess that an evaluation of sales ability would include questions related to what the customer wants.

There is nothing in the current research to indicate whether or not performance on a sales test would transfer to actual on-the-job sales behavior. However, if participants can fake their responses, then the use of critical incident scenarios where interviewees are asked to respond to situational questions must be called into question.

Frei’s (1998) dissertation suggests that people are not very successful when faking results on selection batteries. However, this result was obtained with a well-established instrument with good reliability and validity. Many human resource departments, and individual managers who perform selection interviews, simply make up their critical incidents and selection questions based on company or industry norms and make no assessment of their reliability or potential to be “faked.”

The training intervention in the current study did not improve the participants’ attitude toward the customer and it did nothing to influence the more important result (from a practitioner’s point of view) of customer need recall. Of course, the very limited training intervention is the current study does not replicate what many organizations provide in their overall training programs. Given that this limited training manipulation
was insignificant, additional research is needed to evaluate more complex training interventions to determine if there is a demonstrable improvement in overall customer service.

However, the failure of the training intervention suggests that some companies, particularly smaller ones, may be spending time and money on training programs of dubious value. Many training programs are very short and simple and may not go beyond the limited training intervention in the current study. For example, some training programs consist of nothing more than discussions about active listening. However, individual topics like active listening are probably just one piece of a more complex training puzzle. The results of this research seem to indicate that customer service will not necessarily improve just because a service provider has been told to focus on a customer’s unique needs. Unfortunately, some actual training programs fail to delve beyond the simple topics of, “Listen to the customer and treat everyone fairly.”

Training is an important topic for almost every organization and additional research on training effectiveness would help practitioners with their evaluation of existing training programs. Given the limitations of the current study discussed in section 5.2, an interesting extension would be a field study. In the new study, participants would be actual service providers and actual customers.

This field study could be conducted in the auto service industry. This type of service is considered “medium level of psychological involvement” (Siehl, Bowen, & Pearson, 1992) and involves a moderate degree of intangibility and ambiguity in terms of the customer trying to describe what is wrong with his or her car. As in the retail
computer industry, the trend is for these firms to move away from commission sales (popular press accounts). Thus, there would not be any confounding effects of service providers trying to make extra commissions. The service provider in this context must engage in a fairly detailed communicative exchange with the customer to ascertain what is wrong with the car. (For reference, a “high psychological involvement” condition would be the exchange between a patient and doctor, but this is not a realistic environment for research. The best available alternative seems to be the ‘diagnosis’ of what is wrong with a customer’s automobile.)

Realistically, this type of field study would probably have to employ qualitative techniques. However, several laboratory-type instruments could also be used. Service providers could be pre-tested for trait anxiety, self-monitoring behavior, need for evaluation, and need for cognition.

If there are no legal ramifications, interactions between service providers and customers could be videotaped. The primary investigators could review the tape and record many variables such as (1) descriptions of the customers, (2) the complexity of language used by each participant in the dyad, (3) the non-verbal behaviors of both participants, and (4) what was sold compared to what was requested. These measures could be evaluated for self-monitoring behavior, the amount of interaction (i.e., the number of follow-up questions asked by the service provider), and level of interaction (i.e., a record of the specific automotive language used by each participant in the
exchange). These measures would allow analyses similar to the current study in terms of customer appearance, customer product knowledge, and level of customer service provided.

Sales providers could also review the tape at predetermined intervals and then respond to survey questions about the customers. These questions would be attitude evaluation questions from existing attitude instruments. Customers could also be surveyed using the company’s existing customer satisfaction instrument. If the company does not have a customer survey, or if it was very limited, one could be developed for the company from other existing instruments. For example, Ford (1995) used the following dependent variables when considering the customer’s point of view:

1. Participant would provide a positive/negative overall store evaluation
2. Participant would or would not recommend the store to a friend
3. Participant would choose to shop at the store even if other stores were closer

Ideally, the company hosting or sponsoring this research would be large enough where there would be service providers with and without the company’s customer service training. This would permit both an evaluation of overall customer service and also a between-subjects evaluation of training effectiveness.

The previous discussion in this section has focused on traditional “bricks and mortar” organizations. Of course, an ever-increasing amount of retail sales is transacted via the Internet. The current study may offer some limited, practical implications for e-businesses.
One obvious implication is a positive one for e-business. That is, on the Internet the customer’s style of dress has no impact. Customers could be dressed in anything, or nothing, when they place their orders. Thus, Internet sales transactions remove many of the potential ways for service providers to discriminate in face-to-face transactions; the customer’s appearance, skin color, gender, nationality, etc. are unknown.

However, e-businesses may not be completely immune from problems resulting from employees categorizing customers. Customers often submit purchase requests to an e-sales company in a one-way process. This one-way purchase method is somewhat like the current research in that there is no opportunity for immediate follow-up questions. In the current study, service providers recalled more of the customer’s needs when the customer had a stronger knowledge of the product. This result suggested a positive relationship between a customer’s product knowledge and the level of customer service rendered. In the current study it appears that some participants could not decipher the details of what the customer with the weak script wanted for his computer. In an e-tail setting the service provider may have shipped the wrong item.

Many e-tailers use standardized order forms so the previous example is not a problem, but other e-businesses provide on-line help or help via toll-free telephone lines to help customers make appropriate choices. In those cases the participants’ similarity to the customer, based on product knowledge, may be an issue. In the current research when the service provider and the customer had similar levels of computer knowledge, the service provider rated the customer as relatively more intelligent.
This result is important for e-tail salespeople as well as traditional sales practitioners. As previously discussed, service providers probably need to spend more time and effort with customers lacking in product knowledge — or with customers with relatively less knowledge. However, if the service provider has categorized the customer as less intelligent, he or she might be less motivated to spend the necessary time with that customer.

Furthermore, just as with a traditional sales force, the e-tailer may (1) oversell the customer by suggesting an expensive model that is not needed (i.e., “rip-off” the less intelligent customer) and/or (2) undersell the customer by suggesting a product with fewer features when an upgraded model might be more appropriate. The potential ramifications of bad customer relations or lost sales are the same for e-tailers as for brick-and-mortar stores. Again, just as in traditional stores, it is important to make e-business service providers aware (1) of their tendency to make evaluations of their customer’s intelligence and to explain the negative ramifications of over- or underselling the customer and (2) that, yet again, product knowledge is not necessarily correlated with intention to purchase.
CONCLUSION

Overall, the results of the current study were not supportive of the hypotheses. However, there were some significant findings that may suggest future research activities and there may also be some practical implications suggested by the results. The fact that many hypotheses were not supported is probably due to methodological problems rather than conceptual ones. Therefore, the theoretical issues raised in the current study may justify additional, and more thorough, analysis.

In the future, researchers should continue to investigate the impact of a target’s superficial appearance cues on a receiver’s evaluation of the target. While appearance research is not new, the influence of a customer’s appearance on the level of customer service received has garnered little research attention. In the current study, the participants’ willingness to serve the customer was significantly influenced by the customer’s style of dress. Unfortunately, this finding was very limited due to methodological constraints, and it needs a more thorough treatment.

Additional research is justified because of the practical consequences of employees using the customer’s style of dress to categorize customers. If service providers routinely use customer appearance cues to decide whether or not they wish to
serve customers, then service quality may be damaged. Employees may attempt to get
certain customers out of the door as quickly as possible rather than searching for how to
really help the customers get what they want.

If appearance-based categorizations have caused service providers to deliver poor
service, it may be impossible to determine how many customers have been angered or
turned away by an employee’s inappropriate actions or assistance. Not only is there a
potential for lost business, in our increasingly litigious society there may be a good
chance of a lawsuit. Perhaps in the most extreme cases we will see “appearance
discrimination” suits in the future.

Indeed, McAdams, Moussavi, and Klassen (1992) discuss a potential
unanticipated consequence of the Americans With Disabilities Act; the likely emergence
of the issue of employee physical appearance. They argue that legal, organizational, and
economic forces may propel physical appearance to the level of a formidable social issue.
An Indiana court recently heard arguments that a principal administering corporal
punishment unfairly hit a boy much harder than normal because the boy was overweight.
The suit was ultimately dropped, but many legal observers felt that a monetary
settlement was in order. In addition, an African-American male recently sued Eddie
Bower over perceived appearance discrimination (popular press accounts).

The current study also found that participants categorized customers based on
similarities in product knowledge and that categorization influenced the participants’
evaluation of the customer’s intelligence. This finding suggests that an organization’s
training program may need to be modified if it does not currently address customer
categorization and the potential negative results of such categorization. Again, however, practical interventions cannot be prescribed until this topic receives a more thorough research treatment.

In the theoretical realm, the current study’s limited findings suggest that the concept of stereotyping should include more variables that the traditional issues of race, gender and age. While many appearance studies have been referenced in the current study, the specific topic of appearance stereotyping in the domain of customer service largely has been ignored. The influence of appearance has been shown to be as strong as that of gender (Freeman, 1987) and for the individual that is being stereotyped based on appearance, the effect may be just as damaging as the effect of any “traditional” or “accepted” stereotype.
REFERENCES


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APPENDIX A

The basic computer knowledge primer:

Many college students come to buy a computer because they need one for a variety of school assignments.

Customers come in with varying amounts of knowledge about computers.

For most student users, there are two basic types of computers: IBM-compatible computers and Apple MacIntosh computers.

For the IBM-compatible machines, the old 486 processor has been recently replaced by the new Intel Pentium Processor and the Pentium II Processor, some with “MMX”.

There are two basic computer terms that customers sometimes confuse; 'hertz' (as in megahertz) refers to speed. 'Bytes' (as in gigabytes), refers to memory capacity.

Most computers now come with CD-ROM drives that allow data retrieval from a disc similar to music CDs. A CD-ROM has a “sampling rate” which refers to the speed at which the computer can retrieve data from the disk.

A device, known as a ZIP-drive, is installed on some computers to allow for quick, large-scale back-up of the files in the computer’s regular memory.

Computer monitors are usually sold in 13” (small) size and 17” (large size).
A short training primer for potential salespeople (experimental group):

Our definition of customer service at the computer store is making customers happy.

Effective communication refers to minimizing misunderstandings.

Salespeople often choose their responses to customers out of habit; they are simply following a script.

When we ask each customer the exact same questions we are not really focused on that customer's needs, we are simply relying on a learned script—we are engaged in "mindless" communication. In many cases, this prevents good customer service.

A condition that contributes to mindlessness is the use of categories. When we rely on categories we interpret customers' behaviors based on our own cultural norms.

One way that we categorize people is by focusing on how they look.

In service situations, it is best to think of each situation as unique, and not respond to a customer with a script even if we think the customer has a very familiar need. We should listen intently to what the customer says they want or need.

We can never know the state-of-mind (the attitudes, thoughts, and feelings) of other people.

We depend on signals, which are frequently ambiguous, to inform us about the attitudes and wishes of other people.

We use our own coding system, which may be defective, to decipher these signals.

The degree to which we believe that we are correct in defining another person's motives and attitudes is not related to the actual accuracy of our belief.
A short training primer for potential salespeople (control group):

Our company, “The Computer Store” was founded in 1984 by a group of entrepreneurs in Cincinnati, Ohio.

The company began with only five employees and has grown to 28 stores in 6 states with a total of 517 employees.

The Computer Store offers every major brand of computer as well as a variety of accessories.

Our stores are among the most modern retail facilities in the US.

Our employees enjoy competitive salaries and a wide range of benefits.

The computer store provides extensive training for all its employees.

We are a publicly traded company with our stock listed on NASDAQ.

The Computer Store has an excellent service department with a 4-star rating.

We send out a catalog each quarter to all of our current customers.

We provide training to our customers on-site with the purchase of every computer.

The Computer Store continues to catch and overtake our key competitors in terms of sales.
APPENDIX D

*Introductory customer script; identical in both conditions:*

"Hi, I'm a college student and I need to buy a new computer."

"I don't have a lot of money to spend, but enough to get the features I need."

"My friends told me that the salespeople here are very helpful."

"This is a nice store you have."

"It looks like you have a good selection of computers."

"I have heard the service department here is good, too."

At closing, after presenting needs, "Can you help me make the right choice for what I need?"
Moderate knowledge script:

"I want an Intel Pentium II Processor with MMX because I like the additional speed and number crunching ability it provides."

"I want a fully IBM-compatible machine because the off-the-shelf software that is available is fully-compatible with what we use at school."

"I need as fast of a machine as I can afford, at least 300 megahertz because I will be doing a lot of multitasking."

"I need at least a 6 gigabyte hard drive because I will be using a lot of application software that eats up a lot of memory."

"I will be using the computer primarily for word processing, but I also need some decent number-crunching ability for my math classes."

"I need a machine that includes a pre-loaded Windows '97 operating system because the software on my old computer is incompatible with new releases."

"I would like a CD-ROM drive with at least a 16-times sampling rate."

"I would also like an internal ZIP-drive for my memory back-up capability."

"I would like at least a 17" high resolution color monitor because my old monitor is too small and the resolution is poor."
APPENDIX F

Little or no knowledge script:

"I don't want a 486 computer, I want one of the new ones because of the advertisements I've seen on TV."

"I want a computer that works like an IBM because I think we have IBMs at school."

"I need as fast of a machine as I can afford, at least 300 megabytes, because my friends tell me I will be doing more than one program at a time."

"I need at least a 6 gigahertz hard drive because I want to have room for some extra programs in the future."

"I will be using the computer primarily to type papers, but I will also need it to do some formulas in my math classes."

"I need you to put some of the new programs on the machine before I take it home because I think the programs on my old computer are out of date."

"I would like a music CD player with my computer so I can use the new discs."

"I would also like a ZIPPER-drive so I can store my programs."

"I would like a large 13" color TV screen because my old one isn't very sharp."
APPENDIX G

_Pilot test survey for the “moderate” and “little or no knowledge” scripts:_

After reading one of the two scripts, participants in the pilot test answered the following questions on a 7-point Likert Scale; from "strongly agree" (1) to "not sure" (4) to "strongly disagree" (7).

1. The customer has probably never taken any classes that involve computers.
2. The customer knows exactly what he or she wants for a computer.
3. I would ask this person for their advice if I were buying a computer.
4. The customer exhibits little or no knowledge of computers.
5. The customer needs to learn a lot more about computers before buying.
6. The customer exhibits a very good knowledge of computers.

Survey responses for the script that represents a customer with a "moderate" amount of computer knowledge should indicate a cluster of responses toward the "strongly agree" end of the scale for questions 2, 3, and 6 with clusters toward the opposite end for the "little or no knowledge" script. For the script representing little or no knowledge, survey results should show a cluster of responses toward the "strongly agree" end of the scale for questions 1, 4, and 5 with clusters toward the opposite end for the moderate knowledge script.
APPENDIX H

Open-ended survey:

Providing as much detail as possible...

a. Please list as many of the specific things you can recall this customer was seeking for his new computer.

b. Please describe the appearance traits and attributes of this customer in as much detail as possible.

Ancillary Measures and Manipulation Checks (used only in the pilot test):

Please answer the following questions to the best of your ability:

1. What color clothing was the subject wearing?

2. What kinds of jewelry, if any, was the customer wearing?

3. Describe the customer in terms of their knowledge of computer terminology.

Please write, in bullet-point form, all of the thoughts that you have about this customer. When you have finished writing your thoughts, please raise your hand and the experimenter will provide additional instructions.

{At this point, participants were asked to code each of their thoughts as positive, neutral, or negative.}
APPENDIX I

**Attitude survey:**

Please answer the following items by circling the appropriate response on a 1 through 7 scale.

(1) How likely is it that the customer will actually buy a computer on this visit?
   \{1 = extremely unlikely  4 = neither unlikely or likely  7 = extremely likely\}
   
   \begin{array}{ccccccc}
   1 & 2 & 3 & 4 & 5 & 6 & 7 \\
   \end{array}

(2) How would you rate the customer in terms of his product knowledge?
   \{1 = very unintelligent  4 = neither intelligent or unintelligent  7 = very intelligent\}
   
   \begin{array}{ccccccc}
   1 & 2 & 3 & 4 & 5 & 6 & 7 \\
   \end{array}

(3) This customer dresses in a similar style to the way I dress when I go shopping.
   \{1 = Strongly disagree  4 = Neither agree nor disagree  7 = Strongly agree\}
   
   \begin{array}{ccccccc}
   1 & 2 & 3 & 4 & 5 & 6 & 7 \\
   \end{array}

(4) This customer should do more product research before spending money on a computer.
   \{1 = Strongly agree  4 = Neither agree nor disagree  7 = Strongly disagree\}
   
   \begin{array}{ccccccc}
   1 & 2 & 3 & 4 & 5 & 6 & 7 \\
   \end{array}

(5) How would you view the opportunity to assist this customer?
   \{1 = very unfavorably  4 = neither favorably or unfavorably  7 = very favorably\}
   
   \begin{array}{ccccccc}
   1 & 2 & 3 & 4 & 5 & 6 & 7 \\
   \end{array}
(6) Compared to your own knowledge of computers, how would you rate the customer in terms of his product knowledge?
   {1 = below my knowledge
    4 = neither above nor below my knowledge
    7 = above my knowledge}
   1  2  3  4  5  6  7

(7) I think the customer is appropriately dressed for the occasion.
   {1 = Strongly disagree   4 = Neither agree nor disagree   7 = Strongly agree}
   1  2  3  4  5  6  7

(8) I think serving this customer would be challenging
   {1 = Strongly agree   4 = Neither agree nor disagree   7 = Strongly disagree}
   1  2  3  4  5  6  7

(9) Based on what I now know about this customer, I would not want to serve him.
   {1 = Strongly agree   4 = Neither agree nor disagree   7 = Strongly disagree}
   1  2  3  4  5  6  7

(10) I would need to teach this person a lot about computers before I could help them make a decision.
    {1 = Strongly agree   4 = Neither agree nor disagree   7 = Strongly disagree}
    1  2  3  4  5  6  7

(11) This customer looks like someone I would want to “hang out” with in public.
    {1 = Strongly disagree   4 = Neither agree nor disagree   7 = Strongly agree}
    1  2  3  4  5  6  7

(12) I would find it very rewarding to help this person buy a computer.
    {1 = Strongly disagree   4 = Neither agree nor disagree   7 = Strongly agree}
    1  2  3  4  5  6  7

(13) I believe helping this customer would really try my patience.
    {1 = Strongly agree   4 = Neither agree nor disagree   7 = Strongly disagree}
    1  2  3  4  5  6  7
(14) Based only on appearance, how similar do you think this customer is to you?

   {1 = very dissimilar  4 = neither similar or dissimilar  7 = very similar}

   1 2 3 4 5 6 7

(15) How much assistance would you be willing to provide to this customer?

   {1 = very little assistance

   4 = about the same assistance as I would provide other customers

   7 = a great deal of assistance}

   1 2 3 4 5 6 7

(16) Based only on knowledge of computers, how similar do you think this customer is to

   you?

   {1 = very dissimilar  4 = neither similar or dissimilar  7 = very similar}

   1 2 3 4 5 6 7

(17) If this customer returned to the store, how willing would you be to serve this

   customer again?

   {1 = very unwilling  4 = neither willing or unwilling  7 = very willing}

   1 2 3 4 5 6 7

(18) The customer seems to present himself the way I try to present myself when I go out

   in public.

   {1 = Strongly disagree  4 = Neither agree nor disagree  7 = Strongly

   agree}

   1 2 3 4 5 6 7

(19) In terms of helping this customer, I think I would (choose one):

   A. Immediately suggest a computer

   B. Ask the customer some questions about their needs
Semantic differential scales

Please evaluate the customer by circling your evaluation of the customer on each of the following 1 through 7-point scales. (The positive and negative items were mixed in the actual instrument.)

### The Customer

<table>
<thead>
<tr>
<th></th>
<th>1) Unaware</th>
<th>2</th>
<th>3</th>
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### The Customer’s Appearance

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### The Customer’s Computer Knowledge Compared to My Knowledge of Computers

<p>| | | | | | | | |</p>
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### The Customer’s Style of Dress Compared to My Style of Dress

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
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</tbody>
</table>
APPENDIX I

Demographic data survey:

Please answer the following questions about you (not the customer) by circling the single most appropriate response for each category/question.

Gender: Male Female

Race: Black
American Indian (including Alaskan natives)
Asian (including Pacific Islanders)
Hispanic (including persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish origin or cultural background regardless of race)
White, other than Hispanic
Other (specify)______________________________

Age: ____________

Years of retail sales experience: ____________

Please rate yourself in terms of your knowledge about computer hardware:
Expert Above Average Moderate Below Average No Knowledge

Please rate yourself in terms of your knowledge about computer software:
Expert Above Average Moderae Below Average No Knowledge
What style of dress best describes what you normally wear to work? (If you are not presently working, what style of dress would you probably wear to work?)

A  Includes items such as jeans, slacks, “T”-shirts, pullover shirts, blouses, no neckties or scarves

B  Includes items such as 2- and 3-piece suits, neckties, and scarves

C  Includes items such as “weathered” or “grunge” shirts and pants, “retro” 60s and 70s clothing, and body piercing

D  Includes items such as sports logo shirts and pants, sweatshirts with sports logos, and running/jogging suits

E  A required company uniform

What style of dress do you most often wear to non-work, social events?

A  Includes items such as jeans, slacks, “T”-shirts, pullover shirts, blouses, no neckties or scarves

B  Includes items such as 2- and 3-piece suits, neckties, and scarves

C  Includes items such as “weathered” or “grunge” shirts and pants, “retro” 60s and 70s clothing, and body piercing

D  Includes items such as sports logo shirts and pants, sweatshirts with sports logos, and running/jogging suits

Have you completed 12 or more college credit hours in computer technology, computer programming or computer science?

YES  NO
Debriefing statement:

Thank you for your cooperation and participation in this study. As you may be aware, sometimes in experimental research (in order to test a hypothesis about human behavior in a more natural setting), it is not possible to tell the participants about the variables of interest until the experiment is over. This is the case for the study in which you just participated.

As a consumer, you are probably aware that many salespeople do their best to understand a little bit about you and your needs when you walk into the store. I believe that simple appearance cues (one’s manner of dress, jewelry, etc.) are a major influence on how a salesperson assesses a customer. I also believe that how well you communicate your knowledge of the product has a major influence on how the salesperson reacts to you.

Because I am interested in how appearance cues affect salespeople’s assessments of customers, I created an experiment where you would play the role of a salesperson and you would then randomly view a customer who has been dressed in one of three different ways (either in a business suit, jeans and a T-shirt, or very trendy clothes). You also heard the “customer” present only one of two different “scripts.” In one case, the
customer knows a lot about computers and in the other case the person knows very little about computers. This experiment is not designed to assess your potential as a salesperson and you should not make any such inferences based on how you answered the survey questions. Please accept my apology for any inconvenience caused by the fact I had to mislead you and know that your participation in this experiment will greatly enhance our knowledge of sales force behavior.

This study was designed to measure your ability to recall specific needs of the customer and specific appearance attributes of the customer. It was also designed to measure your attitude toward the customer. I was particularly interested to see if differences in the customer's dress and knowledge of computers affected your attitude toward the customer and your ability to recall specific details about the customer's needs and appearance.

You may have received a short training primer about "mindfulness" in communication. I was also interested to see if this type of training would help you do a better job of focusing on the customer and remembering his specific needs. I believe that such training would be useful to sales organizations and this experiment will help demonstrate whether that is true.
I ask your assistance in assuring me that I will be able to finish this research project by agreeing to not discuss this study with other students until the end of the year. As is the case with most experimental research, if the participants know what to expect before they arrive for the experiment, it will alter the way in which they behave. Such changes would distort my data, and waste all of our efforts.

If you have further questions about this research, you may now ask the experimenter, or contact Andy Schaffer in ET 309F. If you have read and understand the information above, please indicate by printing and signing your name and placing the date in the space below.

__________________________
Print Name

__________________________
Signature

__________________________
Date
APPENDIX L

Written description of the visual cues provided in the pilot test:

You are about to read a “script” from a customer at a retail computer store. The customer is presenting his needs to you, and as a salesperson, it is your job to assist this customer.

The customer is a white male with brown hair and his age appears to be in the late twenties. He is of average height and build. He is wearing...

A: a tailored, well-fitted, blue suit, with a white shirt and a conservative red tie.

B: tight blue jeans and a loose-fitting, plain blue “T” shirt with some type of company logo above the pocket.

OR

C: well-worn blue jeans with holes in the knees and a loose-fitting, torn, plain blue “T” shirt. He is also wearing a large, pierced nose ring.

{Participants in the pilot test were provided a sheet with A, B or C.}
APPENDIX M

Computer knowledge survey:

This is a quick survey to assess your current level of computer knowledge.

1. There are two basic design formats for home computers that are named after the companies that originated them. They are:
   a. Digital and Compaq
   b. Apple and IBM
   c. Apple and Digital
   d. IBM and Compaq

2. The most recent type of “Intel” processor chip is known as a:
   a. Pentium
   b. 486
   c. K6
   d. Pentium II
   {“d” was correct as of the date of the research}

3. Which one of the following terms represents the speed of a computer?
   a. 333 megahertz
   b. 333 megabytes
   c. 333 gigabytes
   d. 333 kilovolts

4. Which one of the following terms is commonly used to represent computer memory capacity?
   a. hertz
   b. bytes
   c. bits
   d. volts
5. A relatively new device commonly used to back-up a computer’s data files is called a:
   a. cassette drive
   b. ZIP drive
   c. 5 ¼” floppy disk
   d. 3 ½” floppy disk
   {“b” was correct as of the date of the research}
APPENDIX N

Complete survey in correct order of presentation

The following pages reproduce the actual instruments provided to participants in the correct order of presentation.
IUPUI AND CLARIAN/METHODIST HOSPITAL INFORMED CONSENT STATEMENT

for

A Research Project in the Department of Organizational Leadership and Supervision

STUDY PURPOSE:
You are invited to participate in a research study in the Department of Organizational Leadership and Supervision (OLS) at IUPUI. Your participation in this study is completely voluntary. Participation is in no way a requirement of the OLS Department or a requirement for any class. If you agree to participate, you will be one of approximately 240 subjects who will be participating in this research.

PROCEDURES FOR THE STUDY:
This study is a three-step process: You will read some training material that will help you understand a bit about selling computers at a retail computer store. You will then watch a video of a customer. Finally, you will be given a questionnaire about computer sales. Your total time commitment for this study will be approximately 30 minutes. It will take you about 10 minutes to read the training material, 5 minutes to view the video, and 15 minutes to answer all of the questions on the questionnaire. The research assistant cannot answer questions while the study is in progress, but can answer questions after you have turned in your survey responses.

RISKS OF PARTICIPATING IN THE STUDY:
There should be no physical risks and very minimal psychological risks associated with participating in this study. You will be asked to read and sign a statement after you turn in your survey that will explain a few more details about the study. All responses are confidential and your name is in no way connected with the survey so you cannot be identified in any way.

November 3, 1998

Subject’s initials

(page 1 of 2)

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CONFIDENTIALITY:
The only record of your participation in this study is the receipt you will sign for your $5 participation payment. Your name is in no way tied to your survey responses, either directly or through the use of any type of code. You will not be asked to put your name or any type of identifying code on the questionnaire. Your responses will be completely anonymous.

PEOPLE TO CONTACT:
If you have questions regarding the study you can reach Andy Schaffer at 278-1863.

PAYMENT FOR PARTICIPATION:
For satisfactory completion of the study you will be paid $5. Should you withdraw from the study prior to completion of all surveys, you will not be paid.

SUBJECT’S CONSENT:
In consideration of all of the above, I give my consent to participate in this research study. I understand that I may drop out of or be withdrawn from the study without fear of changing the investigator’s interest or any impact on my grade in any current or future OLS class.

I acknowledge receipt of a copy of this informed consent statement.

SUBJECT’S SIGNATURE __________________________
DATE __________________________ (must be dated by the subject)

SIGNATURE OF WITNESS __________________________
DATE __________________________

November 3, 1998

(page 2 of 2)
This is a quick survey to assess your current level of computer knowledge:

1. There are two basic design formats for home computers that are named after the companies that originated them. They are:
   a. Digital and Compaq
   b. Apple and IBM
   c. Apple and Digital
   d. IBM and Compaq

2. The most recent type of “Intel” processor chip is known as a:
   a. Pentium
   b. 486
   c. K6
   d. Pentium II

3. Which one of the following terms represents the speed of a computer?
   a. 333 megahertz
   b. 333 megabytes
   c. 333 gigabytes
   d. 333 kilovolts

4. Which one of the following terms is commonly used to represent computer memory capacity?
   a. hertz
   b. bytes
   c. bits
   d. volts

5. A relatively new device commonly used to back-up a computer’s data files is called a:
   a. cassette drive
   b. ZIP drive
   c. 5 ¼” floppy disk
   d. 3 ½” floppy disk
A basic computer knowledge primer for potential computer salespeople:

Many college students come to buy a computer because they need one for a variety of school assignments.

Customers come in with varying amounts of knowledge about computers.

For most student users, there are two basic types of computers: IBM-compatible computers and Apple MacIntosh computers.

For the IBM-compatible machines, the old 486 processor has been recently replaced by the new Intel Pentium Processor and the Pentium II Processor, some with "MMX".

There are two basic computer terms that customers sometimes confuse; 'hertz' (as in megahertz) refers to speed. 'Bytes' (as in gigabytes), refers to memory capacity.

Most computers now come with CD-ROM drives that allow data retrieval from a disc similar to music CDs. A CD-ROM has a "sampling rate" which refers to the speed at which the computer can retrieve data from the disk.

A device, known as a ZIP-drive, is installed on some computers to allow for quick, large-scale back-up of the files in the computer's regular memory.

Computer monitors are usually sold in 13" (small) size and 17" (large size).
A short training primer for potential salespeople (experimental group):

Our definition of customer service at the computer store is making customers happy.

Effective communication refers to minimizing misunderstandings.

Salespeople often choose their responses to customers out of habit; they are simply following a script.

When we ask each customer the exact same questions we are not really focused on that customer’s needs, we are simply relying on a learned script—we are engaged in “mindless” communication. In many cases, this prevents good customer service.

A condition that contributes to mindlessness is the use of categories. When we rely on categories we interpret customers' behaviors based on our own cultural norms.

One way that we categorize people is by focusing on how they look.

In service situations, it is best to think of each situation as unique, and not respond to a customer with a script even if we think the customer has a very familiar need. We should listen intently to what the customer says they want or need.

We can never know the state-of-mind (the attitudes, thoughts, and feelings) of other people.

We depend on signals, which are frequently ambiguous, to inform us about the attitudes and wishes of other people.

We use our own coding system, which may be defective, to decipher these signals.

The degree to which we believe that we are correct in defining another person’s motives and attitudes is not related to the actual accuracy of our belief.
A short training primer for potential salespeople (control group):

Our company, “The Computer Store” was founded in 1984 by a group of entrepreneurs in Cincinnati, Ohio.

The company began with only five employees and has grown to 28 stores in 6 states with a total of 517 employees.

The Computer Store offers every major brand of computer as well as a variety of accessories.

Our stores are among the most modern retail facilities in the US.

Our employees enjoy competitive salaries and a wide range of benefits.

The computer store provides extensive training for all its employees.

We are a publicly traded company with our stock listed on NASDAQ.

The Computer Store has an excellent service department with a 4-star rating.

We send out a catalog each quarter to all of our current customers.

We provide training to our customers on-site with the purchase of every computer.

The Computer Store continues to catch and overtake our key competitors in terms of sales.
Please answer the following items by circling the appropriate response on a 1 through 7 scale.

(1) How likely is it that the customer will actually buy a computer on this visit?
   \{1 = extremely unlikely 4 = neither unlikely or likely 7 = extremely likely\}
   1  2  3  4  5  6  7

(2) How would you rate the customer in terms of his product knowledge?
   \{1 = very unintelligent 4 = neither intelligent or unintelligent
   7 = very intelligent\}
   1  2  3  4  5  6  7

(3) This customer dresses in a similar style to the way I dress when I go shopping.
   \{1 = Strongly agree 4 = Neither agree nor disagree 7 = Strongly disagree\}
   1  2  3  4  5  6  7

(4) This customer should do more product research before spending money on a computer.
   \{1 = Strongly agree 4 = Neither agree nor disagree 7 = Strongly disagree\}
   1  2  3  4  5  6  7

(5) How would you view the opportunity to assist this customer?
   \{1 = very favorably 4 = neither favorably or unfavorably 7 = very unfavorably\}
   1  2  3  4  5  6  7

(6) Compared to your own knowledge of computers, how would you rate the customer in terms of his product knowledge?
   \{1 = below my knowledge
   4 = neither above nor below my knowledge
   7 = above my knowledge\}
   1  2  3  4  5  6  7

(7) I think the customer is appropriately dressed for the occasion.
   \{1 = Strongly agree 4 = Neither agree nor disagree 7 = Strongly disagree\}
   1  2  3  4  5  6  7

(8) I think serving this customer would be challenging
   \{1 = Strongly disagree 4 = Neither agree nor disagree 7 = Strongly agree\}
   1  2  3  4  5  6  7

(9) Based on what I now know about this customer, I would not want to serve him.
   \{1 = Strongly agree 4 = Neither agree nor disagree 7 = Strongly disagree\}
   1  2  3  4  5  6  7

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(10) I would need to teach this person a lot about computers before I could help them make a decision.
   {1 = Strongly agree  4 = Neither agree nor disagree  7 = Strongly disagree}
   1     2     3     4     5     6     7

(11) This customer looks like someone I would want to “hang out” with in public.
   {1 = Strongly disagree  4 = Neither agree nor disagree  7 = Strongly agree}
   1     2     3     4     5     6     7

(12) I would find it very rewarding to help this person buy a computer.
   {1 = Strongly disagree  4 = Neither agree nor disagree  7 = Strongly agree}
   1     2     3     4     5     6     7

(13) I believe helping this customer would really try my patience.
   {1 = Strongly agree  4 = Neither agree nor disagree  7 = Strongly disagree}
   1     2     3     4     5     6     7

(14) Based only on appearance, how similar do you think this customer is to you?
    {1 = very dissimilar  4 = neither similar or dissimilar  7 = very similar}
    1     2     3     4     5     6     7

(15) How much assistance would you be willing to provide to this customer?
    {1 = very little assistance
    4 = about the same assistance as I would provide other customers
    7 = a great deal of assistance}
    1     2     3     4     5     6     7

(16) Based only on knowledge of computers, how similar do you think this customer is to you?
    {1 = very dissimilar  4 = neither similar or dissimilar  7 = very similar}
    1     2     3     4     5     6     7

(17) If this customer returned to the store, how willing would you be to serve this customer again?
    {1 = very willing  4 = neither willing or unwilling  7 = very unwilling}
    1     2     3     4     5     6     7

(18) The customer seems to present himself the way I try to present myself when I go out in public.
    {1 = Strongly disagree  4 = Neither agree nor disagree  7 = Strongly agree}
    1     2     3     4     5     6     7
(19) In terms of helping this customer, I think I would (choose one):
   A. Immediately suggest a computer
   B. Ask the customer some questions about their needs
Please evaluate the customer by circling your evaluation of the customer on each of the following 1 through 7-point scales.

### The Customer

<table>
<thead>
<tr>
<th>1) Unaware</th>
<th>2) Intelligent</th>
<th>3) Unready</th>
<th>4) Likable</th>
<th>5) Incompetent</th>
<th>6) Friendly</th>
<th>7) Strong</th>
<th>8) Rude</th>
<th>9) Foolish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledgeable</td>
<td>1</td>
<td>2</td>
<td>3</td>
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### The Customer’s Appearance

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<td>Appropriate</td>
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The Customer’s Computer Knowledge Compared to My Knowledge of Computers

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<td>19) Less</td>
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<td>20) Convincing</td>
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<td>21) Superior</td>
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<td>22) Foolish</td>
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<td>23) Weak</td>
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<td>24) Advanced</td>
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More
Unconvincing
Inferior
Wise
Strong
Beginner

The Customer’s Style of Dress Compared to My Style of Dress

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<td>25) Different</td>
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<td>26) Good</td>
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<td>27) Harmful</td>
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<td>28) Appropriate</td>
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<td>29) Conformist</td>
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<td>2</td>
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<td>30) Detestable</td>
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Same
Bad
Beneficial
Improper
Extreme
Likable
Please write, in bullet-point form, all of the thoughts that you have about this customer. When you have finished writing your thoughts, please raise your hand and the experimenter will provide additional instructions.

{As participants raised their hands, they were asked to code each of their thoughts as positive, neutral, or negative.}
Providing as much detail as possible...

a. Please list as many of the specific things you can recall this customer was seeking for his new computer.

b. Please describe the appearance traits and attributes of this customer in as much detail as possible.
Demographic data survey:

Please answer the following questions about you (not the customer) by circling the single most appropriate response for each category/question.

Gender: Male Female

Race: Black
American Indian (including Alaskan natives)
Asian (including Pacific Islanders)
Hispanic (including persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish origin or cultural background regardless of race)
White, other than Hispanic
Other (specify)

Age: ___________

Years of retail sales experience: ______________

Please rate yourself in terms of your knowledge about computer hardware:
   Expert Above Average Moderate Below Average No Knowledge

Please rate yourself in terms of your knowledge about computer software:
   Expert Above Average Moderate Below Average No Knowledge
What style of dress best describes what you normally wear to work? (If you are not presently working, what style of dress would you probably wear to work?)

A  Includes items such as jeans, slacks, “T”-shirts, pullover shirts, blouses, no neckties or scarves

B  Includes items such as 2- and 3-piece suits, neckties, and scarves

C  Includes items such as “weathered” or “grunge” shirts and pants, “retro” 60s and 70s clothing, and body piercing

D  Includes items such as sports logo shirts and pants, sweatshirts with sports logos, and running/jogging suits

E  A required company uniform

What style of dress do you most often wear to non-work, social events?

A  Includes items such as jeans, slacks, “T”-shirts, pullover shirts, blouses, no neckties or scarves

B  Includes items such as 2- and 3-piece suits, neckties, and scarves

C  Includes items such as “weathered” or “grunge” shirts and pants, “retro” 60s and 70s clothing, and body piercing

D  Includes items such as sports logo shirts and pants, sweatshirts with sports logos, and running/jogging suits

Have you completed 12 or more college credit hours in computer technology, computer programming or computer science?

YES  NO
Debriefing statement:

Thank you for your cooperation and participation in this study. As you may be aware, sometimes in experimental research (in order to test a hypothesis about human behavior in a more natural setting), it is not possible to tell the participants about the variables of interest until the experiment is over. This is the case for the study in which you just participated.

As a consumer, you are probably aware that many salespeople do their best to understand a little bit about you and your needs when you walk into the store. I believe that simple appearance cues (one’s manner of dress, jewelry, etc.) are a major influence on how a salesperson assesses a customer. I also believe that how well you communicate your knowledge of the product has a major influence on how the salesperson reacts to you.

Because I am interested in how appearance cues affect salespeople’s assessments of customers, I created an experiment where you would play the role of a salesperson and you would then randomly view a customer who has been dressed in one of three different ways (either in a business suit, jeans and a T-shirt, or very trendy clothes). You also heard the “customer” present only one of two different “scripts.” In one case, the customer knows a lot about computers and in the other case the person knows very little about computers. This experiment is not designed to assess your potential as a salesperson and you should not make any such inferences based on how you answered the
survey questions. Please accept my apology for any inconvenience caused by the fact I had to mislead you and know that your participation in this experiment will greatly enhance our knowledge of sales force behavior.

This study was designed to measure your ability to recall specific needs of the customer and specific appearance attributes of the customer. It was also designed to measure your attitude toward the customer. I was particularly interested to see if differences in the customer's dress and knowledge of computers affected your attitude toward the customer and your ability to recall specific details about the customer's needs and appearance.

You may have received a short training primer about "mindfulness" in communication. I was also interested to see if this type of training would help you do a better job of focusing on the customer and remembering his specific needs. I believe that such training would be useful to sales organizations and this experiment will help demonstrate whether that is true.

I ask your assistance in assuring me that I will be able to finish this research project by agreeing to not discuss this study with other students until the end of the year. As is the case with most experimental research, if the participants know what to expect before they arrive for the experiment, it will alter the way in which they behave. Such changes would distort my data, and waste all of our efforts.
If you have further questions about this research, you may now ask the experimenter, or contact Andy Schaffer in ET 309F. If you have read and understand the information above, please indicate by printing and signing your name and placing the date in the space below.

Print Name

Signature

Date