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THE INFLUENCE OF SCARCITY MESSAGES ON BUYING IMPULSE: AN EXPERIMENTAL STUDY OF TV HOME SHOPPING PROGRAMS

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THE INFLUENCE OF SCARCITY MESSAGES ON BUYING IMPULSE: AN EXPERIMENTAL STUDY OF TV HOME SHOPPING PROGRAMS

By

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ABSTRACT

THE INFLUENCE OF SCARCITY MESSAGES ON BUYING IMPULSE: AN EXPERIMENTAL STUDY OF TV HOME SHOPPING PROGRAMS

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This study examines the influence of scarcity messages on the impulse buying of TV home shopping program viewers. Consistent with previous studies, this study defined the impulse buy as a purchase that is made by a TV home shopping program viewer who has had no intention to buy the product prior to tuning in to the shopping channel. Additionally, this study identified two new dimensions of the impulse buying: the response time and the strength of the impulse buying. Two types of scarcity messages (claims of limited quantity of an item and indications of a diminishing amount of time available for the viewer to order an item) are proposed to have a positive influence on each dimension of the impulse buying. The viewers' materialistic values also are postulated to affect their impulse buying in TV home shopping positively.

To test these research hypotheses, an experiment was conducted between May 24 and June 15, 1994, which consisted of 48 one-hour sessions for five conditions. A total of 150 students participated in the experiment as subjects. The subjects answered questions in a computerized instrument while they were viewing the experimental TV home shopping programs. The computerized instrument recorded the subject's intention to buy on impulse, the response time, and the strength of the buying impulse, among other variables.

The study found that the levels of buying impulse vary across products and gender, that the viewers tend to make their purchase decisions considerably before a product segment ends, and that it takes much less time for the viewers to decide not to buy a product than to decide to buy a product. The results also indicated that the most buying impulses are accompanied by a strong or very strong intention to do so.

The most important finding of this study is that the factors of interest have different impacts on different dimensions of a buying impulse. Specifically, a buying impulse can be triggered by the viewer's positive product evaluation and materialistic values. When a buying impulse occurs, it is subject to the impact of scarcity messages in terms of the response time and strength of the buying impulse. Scarcity messages themselves do not usually trigger a buying impulse.

To Ying, Kevin and Alan

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CHAPTER 1: INTRODUCTION

TV home shopping is a distinctive combination of advertising, promotion, and merchandising; it is a marketing enterprise that is still in its infancy. TV home shopping and parallel interactive retailing formats will bloom in the next decade as the expanding information superhighway reaches a majority of homes in the United States (Elmer-DeWitt, 1993). Industry experts anticipate that TV home shopping will turn into a sort of "video mall" where shoppers will browse through channels as through individual stores. They will be able to ask for information and advice, order goods, and pay for them — all without leaving the comfort of their homes (Zinn, George, Shoretz, Yang, & Forest, 1993). The technological innovations on the horizon, the commitment and investments of media conglomerates, and public acceptance are bringing this ultimate vision closer to reality (Elmer-DeWitt, 1993). A recent annual survey of 1,000 U.S. adults by Advertising Age found that 31.4% said they were aware of the term "interactive media," compared to 19.1% in the last year's annual survey, and that 19.5% had used home shopping by TV (Fawcatt, 1994).

TV Home Shopping

TV home shopping is an electronic form of direct marketing. It consists of TV programs that are dedicated exclusively to selling products, an idea that originated from marrying America's twin passions of shopping and TV watching (Robichaux & Roberts, 1993). Home shopping programs are designed to present "live" demonstration of products in an entertaining and informative way. Transmitted via cable, broadcasting television, and satellites, TV home shopping programs of two major suppliers, QVC Network and Home Shopping Network, reach two-thirds of the U. S. households with television, 24 hours a day and seven days a week (Zinn, et al., 1993).

A characteristic of TV home shopping is interactivity, which allows viewers to talk with program hosts (also called product describers) and salespeople by telephone while watching the program. Although shopping programs are carried on the current one-way television system, they are actually used in a two-way mode in that viewers can use the telephone to inquire about products and make their orders directly from their home. The Direct Marketing Association defines direct marketing as "an interactive system of marketing which uses one or more advertising media to effect a measurable response and/or transaction at any location" (Stone, 1989) . Obviously, TV home shopping is more interactive than other conventional direct marketing vehicles, such as newspapers, magazines, and direct mail in that the two-way communication between shopping program viewers and merchandisers can be simultaneous.

Another salient characteristic of TV home shopping is that the communication between viewers and merchandisers is a consumer-initiated process. Unlike marketer-initiated direct marketing efforts such as telemarketing or direct mail, shopping programs provide customers the ability to tune in at their discretion at any time of day. Thus, TV home shopping is less intrusive than other forms of direct response advertising like telemarketing and direct mail. Intrusion means that marketing messages or materials are delivered to consumers without their prior consent or request so that consumers feel uncomfortable with the practice of marketers. In an age when concerns for privacy and intrusion are mounting (Schultz, 1992), public acceptance of less intrusive media vehicles like home shopping programs will have a high potential for growth.

TV home shopping programs are transient by nature, as in the case with other broadcasting media. In normal viewing situations, viewers have no control over the flow of programs. As products are introduced or demonstrated one by one at a relatively even pace, viewers may face some time pressure when they find something interesting in

shopping programs, especially if they require more time than the program allows to think about their possible decisions on interesting products. Further, time pressure may be very high when perceived risks of various kinds[1] are involved in viewers' purchase decisions. In an effort to reduce shoppers' perceived risks, TV home shopping services offer lenient return policies. For instance, QVC provides its customers with a 30-day unconditional money-back guarantee. As a result, return rates are higher in TV home shopping than in traditional retailing. In 1993, the average return rate was 20 percent for the Home Shopping Network; and returns on some merchandise categories run as much as 40 percent (Reilly, 1993).

These characteristics make TV home shopping a unique retailing environment where the consumer's decision-making processes may differ greatly from those in the conventional retail stores. This issue will be elaborated in the following sections.

Evolution of the TV Home Shopping Business

TV home shopping originated in 1977 with a radio auction show in Clearwater, Florida. It was the predecessor of the Home Shopping Network (HSN). The show made the leap to television in 1982 on a local system, and was named the Home Shopping Club, a name the network still uses for its shopping programs. In 1985, the company began televising its shopping programs nationally (OECD, 1992). The QVC Network, another major TV home shopping service, was established in 1986. By 1988, more than 30 other home shopping channels existed. After a consolidation in the early 1990s, HSN and QVC became two TV home shopping giants (Ferraro, 1993). In 1992, the QVC service reached 42.9 million households, with an average net sales of $24.85 per household. Home Shopping network's coverage was 57.9 million households, with an average net sales of $18.96 per household. The combined net sales of HSN and QVC were $2.2 billion in 1992 and $2.3 billions in 1993[2].

TV home shopping has had the image of a discount retail outlet since its inception. For years, marketers have categorized TV home shoppers as junk-jewelry-buying, home-bound women from blue-collar households (Reilly, 1993). This image is partially attributable to the positioning strategy of a leading home shopping service, the Home Shopping Network. This network has positioned itself as a middle level retail outlet, as Garry Hogan, president and CEO of HSN, acknowledged in an Advertising Age interview (Donaton, 1993):

> You can think of us as being very close to a Wal-Mart in terms of the kind of customer that we serve, the kind of product that we offer and, I hope, the kind of service that we provide. If you think of QVC and the first retailer you think about is Saks in terms of what they want to be, I'd like you to think of Wal-Mart when you think of HSN. I like that broad middle market. (p. 12)

The image of TV home shopping is undergoing change due to the QVC network's positioning strategy. QVC intends to offer higher-quality merchandise, and use celebrities to present its products. It also has a soft-selling approach. The new channel, named Q2, is a cross between a lifestyle magazine and a specialty store. It targets a more diverse and upscale audience. As companies like cataloger Spiegel and retailer R. H. Macy & Co. plan to enter this business, the gentrification of TV home shopping is likely to continue (Reilly, 1993).

The TV home shopping business has had a relatively stable customer base. As presented in Table 1, 13.5 percent of adults reported that they watched TV home shopping programs in 1989. This number was unchanged in 1990, but increased to 15.6 percent in 1991. In 1992, TV home shopping program viewership dropped to 12.4 percent. However, the viewers who purchased at least one item in the last three months

increased to 5.5 percent in 1992, from 3.7 percent in 1991. Female viewers watched and shopped more often than male viewers in this period of time.

Table 1-1. TV Home Shopping Program Viewers: 1989-1992

(%)

	Watch				Bought in Last 3 Months			
	1989	1990	1991	1992	1989	1990	1991	1992
Total U.S. Adults	13.5	13.5	15.6	12.4	3.9	3.3	3.7	5.5
Men	11.7	11.8	12.8	10.2	3.6	2.8	2.8	5.1
Women	15.2	15.1	18.3	14.4	4.3	3.7	4.5	6.0

Source: Study of Media and Markets, Simmons Market Research Bureau, 1989-1992.

The next wave in TV home shopping development is likely to be spawned by technological advances in telecommunication fields. A merger of video, telephones, and computers will make television an entirely two-way, or interactive, medium as distinguished from the early version of two-way television such as the QUBE system in Columbus, Ohio. These mergers will be a natural result of several technological breakthroughs, including the ability to translate all audio and video communications into digital information; new methods of storing digitized data and compressing them to allow for travel through existing telephone and cable lines; fiber-optic wiring that provides a virtually limitless transmission pipeline; and new switching techniques and other innovations that will make it possible to bring all this to neighborhoods without the necessity of rewiring every home. These are the fundamentals of what is referred to as the "information superhighway." (Elmer-DeWitt, 1993)

Innovations such as these are likely to contribute to the proliferation of home shopping in at least two ways. First, an anticipated 500 TV channels will be available in several years and most of the channels will offer services, home shopping, and other types of information programming. Second, a real two-way television system will make it possible for program viewers to communicate with merchandisers via a remote control device. Instead of talking only with program hosts and salespeople, viewers will have prompt access to huge amounts of service and product information stored on computer servers. Shoppers are likely to become equipped with almost perfect knowledge of services and products, an ideal situation that economists have dreamed of for several decades (Scherer & Ross, 1990).

Consumer Behavior in TV Home Shopping

TV home shopping changes certain facets of the retailing industry by creating a new shopping environment. Unlike conventional retail stores, home shopping programs are characteristic of an interactive communication system between consumers and salespeople. Also, because of the transient nature of TV shopping programs, viewers may face some time pressure while watching certain programs and making purchase decisions. These characteristics of TV home shopping call for a theory of consumer behavior from a different perspective. A few researchers have already begun exploring consumer behavior in this special marketing environment (Grant, Guthrie, & Ball-Rokeach, 1991; James & Cunningham, 1987), and more research is expected to investigate this new phenomenon of marketing communication.

One interesting issue in TV home shopping is impulse buying. Impulse buying is likely to account for a majority of daily transactions in TV home shopping settings because of the nature of this type of electronic retailing, as discussed in previous sections. This speculation was supported in a focus group discussion on TV home shopping (see

Appendix 1). Additionally, even though a monthly program guide that lists all shows hour by hour is distributed to shoppers along with their order shipments, program viewers are not likely to know what specific brands will be available prior to tuning in to a shopping channel. Thus, viewers will have to evaluate products as they are displayed. This requires that purchase decisions be made in a relatively short period of time.

On the other hand, shopping program producers tend to use different promotion techniques to stimulate and facilitate the viewer's spontaneous intent to buy. One set of promotion techniques is what can be referred to as "messages of scarcity" — claims of limited quantity of an item, and indications of diminishing amount of time left for viewers to order an item. These techniques are used to generate a sense of urgency within viewers which may trigger a buying impulse. The effects of scarcity messages on individuals' valuation, liking, and desirability of a commodity have been investigated for four decades (Lynn, 1992). However, no studies have been found that address the effect of scarcity messages on impulse buying behavior, especially in TV home shopping settings. Thus, an exploration of the impact of this TV programming strategy may contribute to the theory of consumer behavior in an interactive media environment.

Purpose of Study

This study examines the influence of scarcity messages on impulse buying behavior of TV home shopping program viewers. Two types of scarcity messages — claims of limited quantity of an item and indications of a diminishing amount of time left for viewers to order an item — will be examined in an experimental study. With a factorial design, three kinds of influences of scarcity messages on impulse buying will be investigated. They are the influence of scarcity messages versus an absence of scarcity messages; the influence of high scarcity messages versus low scarcity messages; and the influence of two types of scarcity messages — limited quantity versus limited time

available for action. The mediating effect of individual differences in materialistic values also is explored.

Previous studies of the constructs of interest and research propositions and hypotheses are developed in Chapter 2. Chapter 3 describes the experimental design, stimulus materials, and data collection and analysis . Findings of the experiment are presented in Chapter 4 and a summary and discussion of the implications and limitations of the study in Chapter 5.

Endnotes

[1] Murphy and Enis (1986) identified five kinds of risks consumer perceive in their decision making. They were financial, psychological, physical, functional, and social risks.

[2] Sales numbers were from the 1992 and 1993 annual reports of the QVC Network and the Home Shopping Network, respectively.

CHAPTER 2: REVIEW OF THEORY AND RESEARCH HYPOTHESES

This study investigates the influence of scarcity messages on impulse buying of TV home shopping program viewers, as mediated by their materialistic values. This chapter reviews previous studies and develops research propositions from which a set of hypotheses is derived. Studies on impulse buying, scarcity messages, and materialism will be discussed in separate sections. Research propositions and hypotheses are then presented.

Who is the TV Home Shopper

In a pioneering study of TV home shoppers, James and Cunningham (1987) examined the motivational, attitudinal, psychographic, and socio-environmental characteristics of TV home shoppers. A survey questionnaire was mailed to a sample of 2,250 known direct marketing TV shoppers nationwide and 956 questionnaire were returned, of which 905 were usable. The discriminant function coefficients and values of the group means of TV shoppers and non-shoppers were used to interpret the results. The findings show that when compared to non-shoppers, individuals who engaged in TV shopping were more likely to be guided by convenience and a greater need for affiliation. They tended to be females, younger, and highly socially isolated. They also were more likely to watch TV between midnight and 6 a.m. and to have a positive attitude toward credit. Further, TV shoppers were less likely to be black and less likely to have a non-traditional marital arrangement.

Impulse Buying

Impulse buying is one type of consumer behavior that has attracted marketing researchers for more than four decades. Clover (1950) studied impulse sales in a unique market situation when 154 retail stores in three west Texas towns were closed for two days

in five weeks due to a shortage of gas. It was assumed that the more important impulse purchases were to a given store, the less likely the store would be to make up its sales after it re-opened. The sales data in these stores showed that in the week with the first one-day closing, sales declined 18% percent from the previous week or the "base week". In the week after the first closing, sales recovered upward to a level of just 1% below the base week. In the following week with the second one-day closing, sales declined, this time by 14% compared to the base week. The succeeding week sales rose to a level of 4% below the base week. Clover concluded that such a pattern indicated impulse buying definitely influenced sales in retail stores.

West (1951) conducted 5,300 personal interviews in six Canadian cities with shoppers who purchased a total of 15,500 items. He found that 37 percent of all purchases were impulse purchases — items that shoppers decided to buy while in the stores. (Bellenger, Robertson, & Hirschman, 1978) surveyed 1,600 customers of department stores and found that 39 percent of the purchases were impulse buys. In a summary of previous studies on impulse buying, Cobb and Hoyer (1986) concluded that there appears to be a high level of impulse purchasing in today's marketplace, and that this type of purchase behavior is not confined to any one single type of product or outlet.

Paramount importance was assigned to the definition of impulse buying on the basis of unplanned purchases (Weinberg & Gottwald 1982). As simply defined by Bellenger et al. (1978), impulse purchases are purchases where the decision to buy is made in the store. According to Engel & Blackwell (1982), impulse buying is a purchase made by the shopper who has not recognized a need for the product or who does not before entering the store intend to buy the product.

Various classifications of impulse buying have been made. Stern (1962) proposed four types of unplanned purchases. A pure impulse buy is a novelty or escape purchase which breaks a normal buying pattern. Reminder impulse buying occurs when the shopper remembers prior experience with the product which leads to the purchase. Suggestion impulse buying occurs when a shopper sees a product for the first time and visualizes a need for it. Planned impulse buying occurs when the shopper enters the store with the intention to make certain purchases dependent upon the availability of price specials, coupon offers, and the like.

Kollat and Willett (1967) used a matrix of intention and outcome categories to identify nine possible purchase types; only one type was unplanned purchase — it was a purchase by the shopper who did not recognize the existence of a need before entering the store, or the need was latent until the shopper was exposed to a product in the store. More recently, Cobb and Hoyer (1986) suggested that there were three types of shoppers: planners — shoppers who had an intention to buy a specific brand before entering the store; partial planners — shoppers who had an intention to buy a product in a certain category but not a specific brand; and impulse purchasers — shoppers who had no intention to buy either a product of certain category or a specific brand prior to the store visit.

Some studies have addressed psychological aspects of impulse buying. Rook (1987) identified eight characteristics of impulse buying from a content analysis of his respondents' descriptions of their impulse buying experiences. According to his findings, the buying impulse is a sudden urge to buy something immediately, which is likely to be triggered by a visual confrontation with a product or some promotional stimuli. In certain situations, however, buying impulse may arise internally without any apparent external visual encouragement. Buying impulses sometimes take center stage quickly and become

intensely preoccupying. Buying impulse itself is stimulating and sometimes it is a source of personal excitement. It discourages consideration of the behavior's potential consequences so that impulse buying is frequently accompanied by different feelings such as indulgence and irrationality. These characteristics of impulse buying are summarized in Rook's definition:

> Impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. The impulse to buy is hedonically complex and may stimulate emotional conflict. Also, impulse buying is prone to occur with diminished regard for its consequences. (p. 191)

Obviously, one difference between Rook's definition and the definitions of impulse buying as "unplanned purchasing" is that, as Rook observed, his term of impulse buying refers to a narrower range of phenomena. Some unplanned buying may have certain psychological characteristics as Rook described, whereas other unplanned purchases may lack these characteristics.

Impulse Buying in TV Home Shopping

It is clear that most previous studies of impulse buying have focused on unplanned purchases for which decisions are made in the store (Bellenger et al., 1978; Engel & Blackwell, 1982) and the factors that tend to trigger impulse purchases (Cox, 1964; Phillips & Bradshaw, 1993; Prasad, 1975). Impulse purchases have been treated as a one-dimensional phenomenon in these studies — whether the shoppers make their decisions in the store or they have made their decisions before entering the store. When we think of the buying impulse in a TV home shopping setting, it seems that two other dimensions are worth investigating:

1) How quickly an intention to buy occurs in the viewing process, and
2) the strength of this intention.

In this study, how quickly an intention to buy an unplanned item occurs in a viewing process is referred to as the response time of the buying impulse whereas how strong an intention to buy is the strength of the buying impulse. Response time of buying impulse can be defined as reaction time in psychological studies. Reaction time refers to the time from the onset of a stimulus to the time the subject responds (James, Schneider, & Hinds, 1992). It is a standard measure in cognitive and perceptual psychology. Reaction time is often used as a dependent variable in studies that test how different stimulus manipulations affect the speed of the subjects' cognitive responses to these stimuli. It is often measured in milliseconds by computerized instruments (Graves & Bradley, 1988; Graves & Bradley, 1991; Mordkoff & Egeth, 1993; Tryon & Mulloy, 1993). In this study, the response time of buying impulse is the time from the beginning of product segment in a shopping program to the time the viewer indicates an intention to buy or not to buy the product.

Response time is a key element in the TV home shopping business. Since products are presented one after another by the program host, the shorter the average response time, the more units the program can sell in a given period of time. Procter & Gamble Co. Chairman-CEO Edwin L. Artzt was very impressed with this advantage of TV home shopping. In his speech to the American Association of Advertising Agencies in May 1994, he (1994) said:

> Barry Diller, at QVC, told me he can sell 20,000 pairs of earnings in 5 minutes on his home shopping channel. That's terrific for a company that sells impulse items. (p. 24)

This magnitude of prompt response is a unique characteristic of TV home shopping largely because of live presentations of products, the national coverage of shopping channels, and the capacity for handling a huge volume of phone calls simultaneously.

Thus, response time is indeed an indispensable aspect of impulse buying in TV home shopping settings.

The concept of strength of buying impulse is largely inspired by Rook's (1987) discussion of impulse buying. As previously reviewed, Rook noted that impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. He distinguished his definition of impulse buying from those that equate all unplanned purchases to impulse buying. By his definition, only unplanned purchases that are caused by a strong urge constitute impulse buying. Using the broad and more operationalizable definition of impulse buying, this study treats any unplanned purchases as impulse buying in TV home shopping situations. In addition, this study attempts to examine the strength of that impulse buying. It is reasoned that if the viewers decide to buy an unplanned product during TV home shopping programs, their intention to buy will be strong instead of weak.

Impulse Buying Compared to Other Buying Behaviors

Impulse buying is distinct from other types of consumer behaviors, such as reasoned action (Fishbein, 1980; Fishbein & Ajzen, 1975), planned behavior (Ajzen, 1985; Ajzen, 1991), compulsive behavior (Faber & O'Guinn, 1989), and addictive behavior (Scherhorn, 1990).

The theory of reasoned action assumes that consumers consciously consider the consequences of the alternative behaviors under consideration and choose one that leads to the most desirable consequences. Behavioral intention is the single best predictor of their actual action, and behavioral intention is influenced by attitude toward the behavior and perceived subjective norm about the behavior (Fishbein & Ajzen, 1975; Fishbein & Ajzen, 1980). Sheppard, Hartwick and Warshaw (1988) conducted two meta-analyses of studies

on the reasoned action model. They found strong overall evidence for the predictive utility of the model, and although numerous instances were identified in which researchers overstepped the boundary conditions initially proposed for the model, the predictive utility remained strong across conditions.

Ajzen (1985, 1991) proposed a theory of planned behavior by adding a new variable, perceived behavior control, to the theory of reasoned action. According to the theory of planned behavior, behavioral intention is determined not only by attitude toward the behavior and the subjective norm, but also by perceived behavior control. By perceived behavior control, Ajzen (1991) means the ability of the person to decide at will whether to perform or not perform the behavior. Because most behaviors depend on opportunities or resources (e.g., money, skill, cooperation of others), only to the extent that a person has the necessary opportunities and resources and intends to perform the behavior, should the person succeed in doing so. Obviously, impulse buying is different from a reasoned action or planned behavior in that impulse buying is by definition unplanned and it is "prone to occur with diminished regard for its consequences" (Rook, 1987).

Impulse buying also differs from compulsive or addictive buying behavior in the degree of self-control, even though both types of behavior are similar in certain aspects. According to Faber and O'Guinn (1989), compulsive buying is an abnormal form of consumer behavior that is typified by chronic buying episodes of a somewhat stereotyped fashion in which the consumer feels unable to stop or significantly moderate the behavior. Compulsive buying behavior is signified by agreement with such statements as "Bought something in order to make myself feel better," "Went on a buying binge and wasn't able to stop," "Bought things even though I couldn't afford them." Although compulsive buying may produce some short-term positive feelings for the shopper, it ultimately is destructive to normal life functioning and results in significant negative consequences.

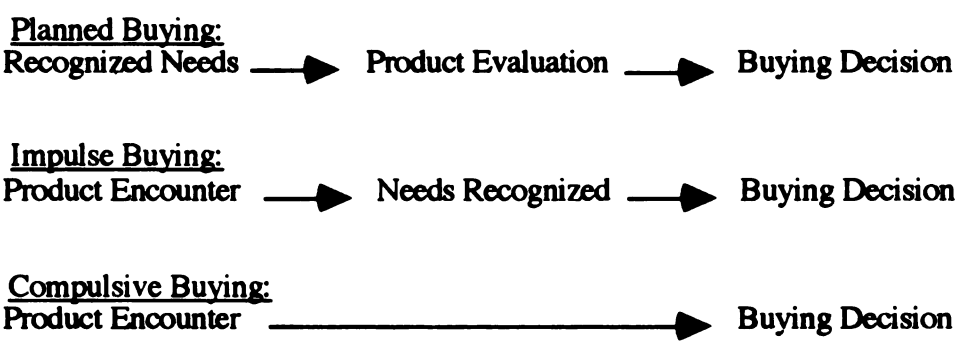
Instead of using the term compulsive buying, Scherhorn (1990) argued that the term addictive consumption was consistent with psychological literature, and would lead to additional insights into consumer shopping behavior. He noted that a psychological difference between the two concepts lies in the reason for the loss of control which both addiction and compulsion have in common. Compulsion means that one feels pressed to do and repeat something even against one's will, whereas addiction is considered to be driven by an irresistible internal urge one experiences. Addiction is a type of self-estrangement. Scherhorn (1990) used habitual drinking to illustrate this point. The result of the behavior — being drunk, despised, and abandoned — is not the state the drinker desires. As can be inferred from his articulated feelings, he would like to avoid such a state. When he drinks again, he will get drunk. The self-estrangement prevents him from realizing that he has a choice — not to drink. Addictive buying has a nature similar to that of addictive drinking.

One difference between impulse buying and compulsive or addictive buying lies in the individual's motivation to engage in the purchase act. Whereas impulse buying is characterized by a desire for specific items, research with compulsive buyers indicates that many of them do not have a great deal of interest in items after they are purchased (O'Guinn & Faber, 1989). Another difference is the severity of consequences of impulse buying and compulsive or addictive buying. For most people, impulse buying does not lead to consequences as severe and extreme as those resulting from compulsive buying, such as severe debt, lowered self-esteem, and a deleterious impact on interpersonal relationships (O'Guinn & Faber, 1989).

The differences among the reasoned or planned action, impulse buying, and compulsive or addictive behavior may be better illustrated by introducing the concept need

recognition. Kollat and Willett (1967) used need recognition to distinguish planned purchase from impulse buying. In their words, "Before entering the store the shopper does not recognize the existence of a need, or the need is latent until she is in the store and has been exposed to its stimuli" (p. 21). Thus, it can be assumed that planned shopping starts with recognized needs; the choice of a product is then evaluated based on those recognized needs, and a decision to purchase is then made. Impulse shoppers, on the other hand, tend to encounter products in the store, then attempt to recognize the needs that the product can satisfy, and then make the buying decision. This process can be referred to as "a product-need matching." Still, for compulsive or addictive shoppers, such a matching process may never take place. This type of shopper may just buy whatever they encounter and like, without even considering needs the product may meet. Or, their needs may be just the buying itself. The position of recognized needs in different shopping processes is diagrammed in Figure 2-1.

Figure 2-1. The Position of Need in Shopping Processes



Factors Contributing to Impulse Buying

Previous studies suggested that impulse buying may be triggered by three types of factors: situational factors, product-related factors, and consumer factors. The following sections review major studies of impulse buying for these three factors.

Situational Factors like store types, location of product display and shelf space have been found to affect impulse purchases. Prasad (1975) investigated unplanned buying in two retail settings — department stores and discount stores. It was found that significant differences existed between the discount and department stores in terms of the overall level of unplanned buying. While the rate of incidence of unplanned buying was significantly higher among the discount store shoppers, the average size of the unplanned purchases was significantly higher among the department store shoppers. Cox (1964) tested the hypotheses that food products sales were responsive to changes in shelf space, and that impulse items were relatively more responsive than staples. He found, however, that sales of staples did not increase as a result of a larger shelf space, and that only one of his three experimental impulse items had higher unit sales in a larger shelf space. In a recent review article, Phillips and Bradshaw (1993) emphasized that point of purchase is a major factor in determining consumer purchasing behavior, especially impulse buying. They discussed the impact of product display on shoppers' selection of products by facilitating their visual perception of the products, and concluded that an interaction between shoppers and product display is required to "account for impulse or unplanned purchasing which is shown to be a major factor in many areas of retailing" (p. 51).

Product-related factors Previous studies have also explored the relationships between impulse buying and product categories as well as price levels. Prasad (1975) examined impulse purchases by product categories in department and discount stores. The "Women and Girls' Wear" category and the "Children and Infants' Wear" category had the highest and the lowest unplanned buying rates, respectively, in the department stores. In the discount stores, the "Men and Boys' Wear" category and the "Toys" category showed the highest and the lowest rates, respectively. Bellenger et al. (1978) found that the percentage of impulse purchases showed considerable variation by product line, with a low

of 27 percent in woman's lingerie and a high of 62 percent in costume jewelry. Deshpande and Krishnan (1979) found that impulse purchases were associated with low cost items, but they appeared to be unrelated to income or the usage of credit cards.

Consumer personal factors Several studies have attempted to identify the influence of consumer characteristics on impulse buying. Kollat and Willett (1967) measured a number of demographic, personality, and shopping behavior variables. They found that impulse purchases occurred more so with a greater number of product purchases, and in a related sense, with larger grocery bills and on major shopping trips, instead of fill-in shopping trips.

Cobb and Hoyer (1986) examined five sets of impulse purchase predictors: decision task variables, shopping lifestyles, general shopping behavior, personality characteristics, and demographics. They found that, compared to planners (shoppers who decided to buy a specific brand before entering the store) and partial planners (shoppers who decided to buy a product in a certain category but not a specific brand before entering the store), impulse shoppers of bathroom tissue were more likely to pick up the first brand spotted in the store and they were people who shopped earlier in the week. These researchers also found that impulse shoppers of coffee were the least likely to have an emotional attachment to the selected brand, to shop for specials, and to carry a shopping list, and that these shoppers tended to examine the fewest packages of coffee before a purchase was made.

Lee (1990) explored the influence of mall shopper type (recreational vs. economic) and mood (positive vs. negative) on impulse buying behavior. In his study, shopper type was found to be more influential than mood on impulse buy behavior. Recreational shoppers who entered the mall in a positive mood and economic shoppers who entered the

mall in a negative mood, revealed relatively higher impulse purchasing rates. In comparing exiting mood states, among the shoppers who entered the mall in a positive mood, only recreational shoppers who exited in a positive mood showed higher impulse buying rates than those who exited in a negative mood.

Measurement of Impulse Buying

Impulse buying behavior is commonly measured by two approaches. One is what can be referred to as the "entrance-inquiry and exit-count" method. Shoppers are asked what they plan to purchase at the time they enter a store and, if they have a shopping list, it will be copied by the interviewer. Then, these shoppers' actual purchases are recorded at the checkout. The purchases that are not mentioned or listed by the shoppers when entering the store are considered to be impulse purchases (Kollat & Willett, 1967). Some researchers are critical of this method. Pollay (1968) argued that by forcing the respondent to recite his or her intentions, the pretest questioning tends to commit that respondent to fulfill those intentions. Pollay also believed that, if shoppers expect to have their groceries inventoried, they are more likely to change their purchase behavior. Thus, higher rates of status purchases such as specialty foods might result for shoppers who anticipate inventorying; these possibilities may bias responses.

Another method used by Cobb and Hoyer (1986) can be referred to as the "in-store observation and interview" approach. In this approach, trained interviewers are stationed in supermarket aisles to observe and question shoppers. Recorded during the observation phase are such variables as number of packages examined, use of a shopping list, and amount of time taken. Immediately after a brand choice, the shopper is asked to participate in a brief in-store interview. Upon completion of the interview, the shopper is asked to take an additional survey home to fill out and mail back. This method seems to be better than the first approach in that it avoids possible biases that may be caused by entrance-

inquiries. However, it is able to unobtrusively record only one purchase per shopper and data collection is less efficient. Moreover, this method categorizes shoppers into either planners, partial planners, or impulse shoppers depending solely on their responses to two questions: 1) "Did you plan to purchase the (insert product category name) before entering the store today?" followed by, 2) "Did you plan to purchase the (insert brand name) before entering the store today?" It seems to be less objective than the entrance-inquiry and exit-count method.

Scarcity Messages

Scarcity messages are claims that an item is of limited availability. A scarcity claim is an attempt to induce individuals to obtain an item while it is still available by informing them that the item has a limited availability (Brock, 1968; Lynn, 1991). Scarcity messages can be expressed in two formats — claims of limited quantity of an item and indications of a diminishing amount of time left for individuals to obtain an item. Claims of limited quantity are commonly used in promotions in conventional retail stores, whereas TV home shopping settings facilitate the use of diminishing time left for viewers to order an item.

Kelman (1953) was one of the first researchers to study messages of scarcity. He told classes of school children that if they were willing to write an essay favoring jungle stories, then either an entire class (non-scarce condition), or only five members of the class (scarce condition) would receive a movie pass to see a particular movie. The results showed that the school children who received the message stating that the movie passes were scarce wanted to see the movie more than those who received the message stating that the movie passes were available to everyone.

Fromkin (1971) explored the effect of scarcity messages on the perceived monetary value of an item. Scarcity was manipulated by telling one group that he had 1,000 pairs of

nylons and could distribute 50 in their area (scarce condition). The second group was told that he had 100,000 pairs and could distribute 1,000 in that area (non-scarce condition). The results showed that the subjects who received the message stating that the nylons were scarce were willing to pay $2.71 per pair versus $2.27 for the non-scarce group. Fromkin assumed that the difference in the two prices represented a difference in value.

Knishinsky (1982) had beef salespeople telephone supermarkets and provided them with one of two messages to potential customers. One group of customers received a standard sales presentation that attempted to get them to place their beef order (non-scarce condition). The second group received the standard sales pitch, but was also informed that the supply of beef was likely to be in short supply in the upcoming months (scarce condition). The results of the experiment showed that customers who were told that the beef was likely to be in short supply ordered over two times more beef than customers who received the standard sales pitch.

Theories of Scarcity Messages

Different theories have been developed to explain the effects of scarcity messages. One is commodity theory (Brock, 1968). Its principal claim is that "any commodity will be valued to the extent that it is unavailable" (Brock, 1968) . There are three basic concepts in this theory: commodity, value, and availability. Commodity may be anything that can be possessed, is useful to its possessor, and is transferable from one person to another. Value refers to a commodity's "potency for affecting attitudes and behavior" (Brock 1968, p.246). Since commodities have a positive utility, any enhancement of a commodity's value will increase its perceived utility and will make the commodity more desirable. Availability refers to the perceived difficulty of obtaining the commodity (Bozzolo & Brock, 1992; Brock, 1968). Therefore, availability can be limits on the supply or the number of suppliers of the commodity; costs of acquiring, keeping, or providing a

commodity; restrictions limiting possession of a commodity; and delays in providing a commodity. According to Brock (1968), when a commodity is perceived as unavailable, that commodity is valued to a greater extent and the motivation to obtain it is enhanced. Scarcity is only one manner in which a commodity may be perceived as unavailable (Bozzolo & Brock, 1992; Brock, 1968).

Lynn (1991) conducted a meta-analysis of 38 studies testing commodity theory between 1968 and 1989. He found that although highly reliable, the scarcity effects were fairly small, with a mean (correlation) effect size of .12. The effects ranged from -.54[1] to .43, indicating significant heterogeneous effects across those studies.

Commodity theory did not originally specify the mechanism underlying scarcity effects on value. However, Brock (1968) suggested that people may desire scarce commodities more than comparable available commodities because the possession of scarce commodities conveys feelings of personal distinctiveness or uniqueness. This speculation was elaborated in the need-for-uniqueness theory (Fromkin, 1968; Snyder & Fromkin, 1980). According to this theory, people are motivated to maintain a sense of specialness as they define themselves on various important factors related to self and others. Because commodities are an important source for defining one's sense of self in Western culture, it is reasoned that scarce products provide a vehicle for establishing one's specialness when the need for uniqueness is activated. To ensure their sense of uniqueness, people attempt to acquire things not available to everyone.

In a classic study, Fromkin (1970) posited that people should be very desirous of participating in a rare or scarce activity if they were feeling highly similar to other people (i.e., their need for uniqueness is activated). After completing a 90-item questionnaire about themselves, students were given computer-generated feedback showing that they

were either slightly or highly similar to 10,000 other students who had also taken the questionnaire. Next, the research participants were given descriptions of the experimental environments. Because of room availability constraints, one environment was described as being available at all times (plentiful or non-scarce condition), whereas another environment was available only one hour per week (scarce condition). Overall, results revealed that people were more desirous of the scarce as compared to the plentiful experience. However, the scarcity main effect was qualified by the predicted interaction of scarcity by need for uniqueness. Under the slight-similarity feedback condition, there were no differences in the ratings of the plentiful versus scarce experience. For the high-similarity feedback condition, however, the research participants rated the scarce experience as more desirable than the plentiful one, wanted to spend more time in the scarce condition, and were less willing to give up an opportunity to participate in the scarce as compared to the plentiful experience. To verify the reliability of this theory, Lynn (1991) conducted a meta-analysis of 11 studies that included the necessary scarcity and need for uniqueness variables. The anticipated interaction was obtained and reliable across studies ($z = 3.59$, $p < .001$).

Psychological reactance theory (Brehm, 1966; Brehm & Brehm, 1981; Wicklund, 1974) also has been used to explain why people react the way they do to scarcity messages (Worchel, Lee, & Adewole, 1975). Reactance theory focuses on an individual's reaction to threatened or lost freedoms. It maintains that people have a strong desire to be free to believe or behave as they wish. When people perceive that these freedoms are threatened with elimination, they experience a psychological discomfort described as reactance. Brehms' argument is that this discomfort tends to cause a person to react by restoring his or her perceived lost or threatened freedoms (Brehm & Brehm, 1981). Psychological reactance theory seems to be a reasonable explanation for the effect of scarcity messages. In light of this theory, messages of scarcity suggest to people that their freedom to acquire

certain items is constrained due to the limited availability of these items. Any restriction on the freedom should increase the perceived attractiveness of the item. A person's desire for a scarce item will be increased when he or she is threatened by its potential loss. To avoid the loss of freedom, a person will attempt to acquire the scarce item.

In contrast to these psychological perspectives, naive economic theories (Lynn, 1992) assume that the effects of scarcity may be at least partially attributable to people's naive economic theories of scarcity. It is possible that scarcity's enhancement of desirability is mediated by the assumption that scarce things are more expensive. Then, assumed expensiveness may increase the desirability either by leading people to attribute higher quality to the commodity or by increasing the perceived status of scarce commodities. These causal relationships have been partially supported by empirical studies (Lynn, 1992).

Other studies on the influence of scarcity messages on perceived expensiveness were less conclusive. According to naive economic theories, scarcity's enhancement of desirability is mediated by assumed expensiveness. Thus, it is logical that scarcity's effects should be weakened or eliminated by precluding people from assuming that the scarce commodity costs more than the available one. If people know the price of a commodity, scarcity should not result in more desirability. Lynn (1989) studied the desirability of a white wine by manipulating the availability of the wine and price information. He found that scarcity reliably enhanced both perceived expensiveness and the desirability of the wine only when subjects did not know how much it cost. However, this finding was inconsistent with an earlier study. In a study by Syzibillo (1973) female subjects were presented with information about pant suits, with three levels of price (no price information, low price, and high price) and three levels of scarcity (no scarcity information, low scarcity, and high scarcity). Subjects then rated the suits on a number of dimensions.

An analysis of subjects' desirability ratings indicated a scarcity main effect but not an interaction of scarcity by price information. Thus, scarcity enhanced desirability in that study even when subjects knew how much the product cost.

Conditions for Scarcity Messages to Function

Studies have revealed that scarcity messages increase the attraction to whatever is perceived as scarce (Lynn, 1992), raise the perceived value of the item (Fromkin, 1970), and increase desire for the item (Brock & Brannon, 1992). However, the impact of scarcity messages is not unconditional; scarcity messages function only under certain circumstances. First, a scarcity message must be believable before it can affect a person's attitude (Yun, 1992). It is clear that if people do not believe a scarcity message, they will not consider the item scarce. Thus, their attitude toward the item will not change.

Second, people must perceive that a scarce item has worth before the scarcity message will affect their attitude toward that item. Yun (1992) used lottery tickets in his scarcity experiment. Scarcity messages on the lottery tickets were not found to affect subjects' attitude. One explanation was that subjects used in the study did not perceive the lottery tickets to have worth.

Materialism

This study also investigates the mediating effect of materialism on buying impulse in scarcity conditions. Materialism is a useful construct in exploring the effect of scarcity messages on impulse buying behavior because it is the consumption orientation that has a fundamental impact on a person's lifestyles and daily consumption

Although researchers may disagree on the date and place of modern consumption's emergence, they agree that it has achieved a place in both industrial and post-industrial life

(Belk, 1984; Belk, 1985; Richins & Dawson, 1992). Theoretical notions about materialism have benefited from decades of historical, political, anthropological, and sociological explorations (see Richins (1990) for a review of origins of materialism). In contrast to scholars of other disciplines who have tended to treat materialism as an aggregate phenomenon, marketing researchers are interested in individual differences in materialism or materialistic values. A series of attempts have been made to develop valid and reliable measures of materialism that are consistent with theoretical notions of materialism (Belk, 1984; Belk, 1985; Campbell, 1969; Mochins & Churchill, 1978; Richins & Dawson, 1990; Richins & Dawson, 1992; Yamauchi & Templer, 1982).

In the marketing literature, an early definition of materialism was developed from studies of child and adolescent socialization. Ward and Wackman (1971) defined materialism as "an orientation which views material goods and money as important for personal happiness and social progress" (p.422). This definition has also been used in later studies (Brand & Greenberg, 1992; Churchill & Mochins, 1979; Mochins & Moore, 1982).

More systematic studies of materialism have been conducted by Belk (1983; 1984; 1985). He defines materialism as:

> The importance a consumer attaches to worldly possessions. At the highest levels of materialism, such possessions assume a central place in a person's life and are believed to provide the greatest sources of satisfaction and dissatisfaction. (p.291)

Belk proposed that materialism consists of three traits: possessiveness, nongenerosity, and envy. According to Belk (1983; 1984; 1985), possessiveness is the inclination and tendency to retain control or ownership of one's possessions, and nongenerosity refers to an unwillingness to give possessions to or share possessions with others. As for envy, Belk (1985) adopted Shoeck's definition of envy as displeasure and ill will at the

superiority of another person in happiness, success, reputation, or the possession of anything desirable. The empirical test (Belk, 1985) indicated that possessiveness, nongenerosity, and envy were indeed subscales of overall materialism.

Richins and Dawson (1990; 1992) disagreed with Belk's treatment of materialism as a set of traits. These researchers observed that traits are personal characteristics that are formed at the early age, thus they are relatively unchanging over the life span. Also, underlying traits are generally impervious to environmental stimuli (Richins and Dawson 1990). The conception of materialism from the literature does not fit the accepted characterization of traits. Therefore, Richins and Dawson (1992) treated materialism as a value. They suggested that defining materialism as a value is consistent with the notion that materialism reflects the importance a person places on possessions and their acquisition as a necessary or desirable form of conduct to reach desired end states, including happiness.

Considering materialism as a value, they proposed three different components of materialism: Acquisition centrality, acquisition as the pursuit of happiness, and possession-defined success (Richins & Dawson 1990; 1992). Acquisition centrality refers to the extent to which one places possession acquisition at the center of one's life. Acquisition as the pursuit of happiness is the belief that possessions are essential to satisfaction and well-being in life. Possession-defined success refers to the extent to which one uses possessions as indicators of success and achievement in life both in judging themselves and others. From these propositions, these researchers have developed and tested the measures of materialism in a series of efforts, resulting in a scale of materialism. The three subscales and the combined scale have acceptable reliability coefficients and are found to be free from social desirability bias.

Materialism Over the Life Span

Csikszentmihalyi and Rochberg-Halton (1981) suggested there may be important differences in materialism that occur during the life span of the individual. They found that when three generations of a family's members were asked to name their favorite possessions and explain the significance of the designated items, the possessions named and the rationales offered differed systematically across generations. The youngest (teenager) generation was most likely to name products like stereo equipment that allow them to do things. The middle generation pointed to a variety of objects from furniture to trophies that reminded them of accomplishments and shared experiences. The oldest generation most revered photograph albums and other memorabilia.

Belk (1985) expected that overall materialism would be highest for the middle generation. Adolescents should value activities more than things, and older persons should be less egoistic. For similar reasons, the middle generation was also expected to score highest on his three subscales (i.e., possessiveness, nongenerosity, and envy) of materialism. Belk (1985) defined the youngest generations as those of 13 years or older, unmarried, without children, and living with parents; the middle as those married, with children living in the household, and without grand children; and the oldest generation as grandparents. His findings showed, as hypothesized, that the middle generation tended to score highest in both the overall scale and the subscales. However, these scores were not significantly higher than those of the youngest generation on two (possessiveness and envy) of the three subscales. Additionally, the magnitudes of difference were somewhat small. Nevertheless, Belk found that materialism and specific materialistic traits were weakest among the oldest generation.

Acquisition and Materialism

As an orientation to consumption, materialism has had a fundamental impact on how people value acquisition. Researchers assumed that high materialistic people value acquisition and the means to acquire possessions more than those low in materialism, and that they also value possessions more than other life goals and more than their relationships with other people (Belk, 1985; Richins & Dawson, 1992). Richins and Dawson (1992) further assumed that people who desire a lot of possessions will need more money to acquire those possessions and thus are expected to report a higher desired level of income. Their empirical tests indicated that respondents high in materialism felt that they needed significantly more income than those low in materialism. They also found that respondents high in materialism were more likely to value "financial security" and less likely to value "warm relationships with others," and that for respondents low in materialism, four values were rated as more important than "financial security." They were self-respect, warm relationships, family security, and a sense of accomplishment. Based on those findings, Richins & Dawson (1992) concluded that materialists are more likely to value acquisition and the means to acquire possessions.

In a recent master's thesis, Yun (1992) developed his propositions on the relationship between people's material values and their reactions to scarcity messages. He assumed that highly materialistic people attain more happiness in their life by acquiring possessions than do less materialistic people. As such, messages of scarcity should have a more pronounced effect on highly materialistic individuals because these messages present a direct threat to their ability to pursue happiness in their life. Yun hypothesized that highly materialistic people were more likely to like, be attracted to, and value a scarce product than less materialistic people. However this hypothesis was not confirmed, which was attributed to lower overall levels of materialism among student subjects.

Research Propositions and Hypotheses

Previous studies have indicated that impulse buying is a typical consumer behavior in today's marketplace. It has been defined as purchases for which the decision is made in the store. Impulse buying is distinct from reasoned or planned purchases and compulsive or addictive buying. The definition of impulse buying is expended in this study to characterize major aspects of this phenomenon in TV home shopping settings. In addition to the core aspect of unplanned purchase, the response time and strength of the impulse buying in TV home shopping are identified and proposed for investigation. The new concept of impulse buying is necessary to examine consumer behavior in an interactive shopping process.

Impulse buying has been found to be affected by situational factors such as types of stores, location of product display, and shelf space in conventional stores. In TV home shopping settings, the channel is the store. Thus, TV programming strategies may affect the viewer's impulse buying behavior, as do situational factors in ordinary stores. Scarcity messages, the focus of this study, are one type of TV programming strategy that is assumed to affect the impulse buying behavior of TV home shoppers.

Different theories have been developed to explain the impact of scarcity messages on perceived values of scarce items and desire to acquire these items. This study uses the psychological reactance theory (Brehm, 1966) to justify the relationship between scarcity messages and impulse buying in TV home shopping. This theory reasons that any event that makes it difficult for an individual to exercise a freedom constitutes a threat to that freedom, and threats to freedom typically should produce reactance arousal. A direct behavioral effect of reactance arousal is an action to restore the threatened freedom. In a

shopping setting, impulse buying should occur when a shopper seeks the immediate satisfaction of getting an item that may become unavailable unless a prompt action is taken. Therefore, it is postulated that scarcity messages have a positive influence on each of the three dimensions of a buying impulse of TV home shopping program viewers, provided that scarcity messages are perceived to be true and that the scarce items have perceived value to viewers. Specifically,

H1: A buying impulse is more likely to occur in a scarcity condition than in a non-scarcity condition.

H2: Response time of a buying impulse is shorter in a scarcity condition than in a non-scarcity condition.

H3: A buying impulse is stronger in a scarcity condition than in a non-scarcity condition.

In addition to a comparison of scarcity and non-scarcity situations, this study also investigated the differences in buying impulse in the high scarcity and low scarcity situations. If scarcity messages have a positive influence on buying impulse, then high scarcity should have a stronger impact on buying impulse than low scarcity . This, the following hypothesis is proposed:

H4: A buying impulse is more likely to occur in a high scarcity condition than in a low scarcity condition.

As discussed, there are two types of scarcity messages in TV home shopping settings — claims of limited quantity of an item and indications of diminishing time available for action. Although no literature exists to suggest which type of scarcity messages is more likely to affect impulse buying, this study anticipates that scarcity messages of time have a stronger influence on buying impulse than scarcity messages of

quantity. This proposition is based on a fundamental characteristic of the U.S. economy. Due to the U.S. huge capacities for mass production, shortage of goods supply has hardly been an economic fact except for very special events in history, like the sugar crisis of 1974 ("Sugar," 1974) and the oil crisis of 1979 ("Energy Togetherness," 1979). Consumers have rarely experienced any shortage in the supply of daily goods. On the other hand, consumers have numerous opportunities for special promotion offers in specified short periods of time. Consumers have been trained by marketing and advertising practices to respond to time-related scarcity messages. Therefore, it is reasoned that time scarcity messages have a stronger impact on buying impulse than quantity scarcity messages. Specifically,

H5: A buying impulse is more likely to occur in the high scarcity of time condition than in the high scarcity of quantity condition.

Materialism is an individual's orientation to the acquisition and consumption of goods. Studies have found that materialistic people are more likely to value acquisitions than less materialistic people, and that materialists are more likely to seek happiness from acquiring possessions than from other activities (Richins & Dawson, 1992). Because materialism makes people more subject to material influence, it is plausible that more materialistic viewers of TV home shopping programs are more likely to buy on impulse than viewers low in materialism. The influence of materialism on each of the three dimensions of buying impulse is hypothesized:

H6: A buying impulse is more likely to occur in highly materialistic viewers, somewhat likely to occur in moderately materialistic viewers, and less likely in least materialistic viewers.

H7: Response time is shortest in highly materialistic viewers, somewhat short in moderately materialistic viewers, and longest in least materialistic viewers.

H8: A buying impulse is strongest in highly materialistic viewers, somewhat strong in moderately materialistic viewers, and weak in least materialistic viewers.

If materialism makes people more subject to material influence, it can be further anticipated that materialistic people are more likely to be influenced by scarcity messages. Therefore, it is plausible that materialism and scarcity messages interact to maximize the buying impulse in viewers who are highly materialistic and in a high scarcity condition. Thus,

H9: A buying impulse is more likely to occur in highly materialistic viewers who are in a high scarcity condition than in less materialistic viewers who are in a low scarcity condition.

In sum, nine research hypotheses are proposed in the study. Among them, five hypotheses are on the impact of scarcity messages on buying impulse; three on the influence of materialism on buying impulse; and the last one on an interaction of scarcity messages and materialism on buying impulse.

Endnotes

[1] Five studies in Lynn's (Lynn, 1991) meta-analysis produced significant reversals of predicted scarcity effects, i.e., scarcity's enhancement of value may sometimes be overwhelmed by concerns about being or appearing selfish, and thus, it reduces people's desire for the scarce items. This effect is referred to as "reversals of scarcity effects" (p.47).

CHAPTER 3: METHODOLOGY

This chapter describes the methods used to conduct the experiment, collect and prepare data, and test the hypotheses outlined in Chapter 2. The hypotheses seek to assess the influence of scarcity messages on the buying impulse of TV home shopping program viewers, as mediated by the viewers' materialistic values. Testing these hypotheses requires a factorial design in which the effects of two types of scarcity messages (time and quantity) on buying impulse can be explored simultaneously. The following sections describes the research design, stimulus materials, subjects, instruments and experimental procedures, as well as preliminary analyses of data.

Research Design

1. Dependent Variable

Buying impulse is the dependent variable in this study. To be consistent with previous studies of impulse buying in traditional store environments (Cobb & Hoyer, 1986; Lee, 1990; Phillips & Bradshaw, 1993; Rook, 1987), this study defines impulse purchase in a TV home shopping setting as a purchase that is made by a TV home shopping program viewer who has not had the intention to buy a product prior to tuning in to the shopping channel.

Whether a prior intention exists is the difference between an impulse buy and a planned purchase. The existence of a prior intention can be determined by asking the shopper if he or she has such an intention before the shopper enters the store (Kollat & Willett, 1967). The drawbacks of this approach are that the pretest questioning tends to commit the respondents to fulfill their intentions or it may result in status purchases if the respondent anticipates inventorying at the end of shopping. Both possibilities may bias responses (Pollay, 1968)

Lack of a prior intention can be assumed if the purchase is a new product. Because the shopper has been unaware of a product before entering the store, purchase of this product can be assumed to be an impulse buy. This study takes this approach. It uses all new products in the experiment. Thus, an intention to buy any of the products can be considered an impulse buy.

As discussed in Chapter 2, two new dimensions of buying impulse are proposed in this study. In addition to whether the viewer wants to buy an unplanned item, the response time and the strength of an intention also are measured. The three dimensions — intention to buy an unplanned item, response time of an intention, and the strength of an intention — are all dependent measures. Measurement of the three dimensions is described in the instruments section of this chapter.

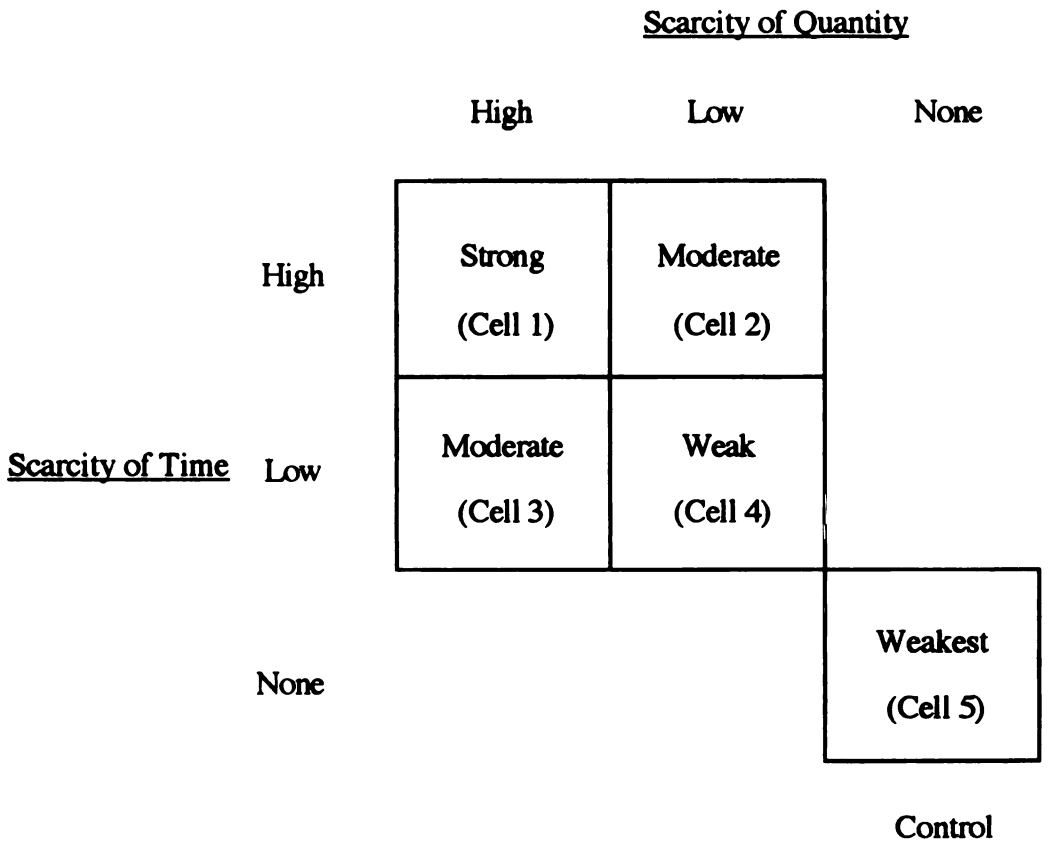
2. Independent variables

Independent variables are scarcity manipulations and materialism. Two types of scarcity messages — limited quantity and limited time available for action — were examined in this study. For each type of scarcity message, two levels of scarcity (either high or low) were implemented in the experiment. Specifically, the quantity of an item was either very limited (high scarcity of quantity) or somewhat limited (low scarcity of quantity). In the same vein, the time available to order an item was either very short (high scarcity of time) or somewhat short (low scarcity of time). The quantification of scarcity messages for each condition is discussed in the stimulus section of this chapter. This 2 by 2 factorial design is diagrammed in Figure 1.

This figure shows the magnitude of one dimension of buying impulse (strength of an intention) in each of the four conditions. In addition to these four scarcity conditions, a

control condition also is implemented in the study, whereby no message is given regarding quantity or time available. This research design makes two comparisons possible. First, a comparison of buying impulse can be made between scarcity and non-scarcity conditions (Cells 1, 2, 3, and 4 vs. Cell 5). Second, buying impulse can be compared for high scarcity and low scarcity conditions (Cells 1 and 3 vs. Cells 2 and 4 for quantity scarcity and Cells 1 and 2 vs. Cells 3 and 4 for time scarcity). An analysis of variance is appropriate for this design.

Figure 3-1. The Strength of Buying Impulse by Scarcity Conditions



Materialism of TV home shopping viewers, another independent variable in the study, was categorized at three levels: low, medium, and high. Discussion of materialism measurement is in the materialism scale section of this chapter.

Stimulus Materials

TV home shopping programs from the QVC Network were used in this study. The reasons for using the QVC instead of the Home Shopping Club programs as the pool of experimental materials are threefold. First, QVC is commonly perceived as a higher quality shopping channel because of its soft-selling approach, frequent use of celebrities to present products and its quality merchandise. QVC programs are more appropriate considering use of college students as subjects of the study. Second, the QVC Network provides its customers with a monthly program guide that outlines daily shopping programs by hour. Such a program guide was not available for the Home Shopping Club channel. The QVC program guide greatly facilitated the selection and preparation of stimulus materials. Finally, only the QVC shopping channel is available 24 hours a day on the cable system in the area where the author lives and works. The local availability of the QVC channel made it possible for the author to observe its programs on a regular basis.

1. Program Selection

A content analysis of the QVC programming shows that a variety of shopping programs is available on this shopping channel (for content analysis results, see Appendix 2). In a four-week period from July 26 to August 22, 1993, the QVC channel aired 175 programs, totaling 672 hours. The length of individual programs was from 1 hour, a standard format, to 24 hours for "Fifth Klondike Gold Rush." The ten most frequent programs, presented in Table 3-1, were all one-hour shows. Topping the list, "The Jewelry Showcase" was shown 44 times in this four-week period.

Table 3-1. Top Ten QVC Programs

Program Name	Length (in hours)	Frequency
1. The Jewelry Showcase	1	44
2. Fun & Leisure	1	36
3. Superbargains	1	31
4. Make Life Easier	1	27
5. Around the House	1	26
6. Now You're Cooking	1	23
7. The QVC Sampler	1	17
8. Fashion Coordinates	1	12
9. The Gold Hour	1	10
10. The Ring Showcase	1	9

Source: The QVC Program Guide, July 26 - August 22, 1993.

2. Product Selection

"The QVC Sampler," ranking seventh in this tabulation, was selected as the pool of experimental programs primarily because this program typically sells new products. Eight QVC Sampler shows were randomly selected from the program guide between March 28 and April 24, 1994 and videotaped from the QVC channel. The eight shows presented 39 different products, with their prices ranging from $13.75 for a 1994 NCAA Final Four T-Shirt to $1,990.00 for an IBM 486/25 PS1 computer with SVGA monitor.

After a review of the prices of these products, items that cost more than $50 were excluded from the list because big-tag products were less likely to be impulse items and thus less relevant for this study. This resulted in a list of 29 products as the pool for identifying products to be used in the experiment.

To ensure that experimental products were of general appeal to the subjects, a pretest was conducted among a sample of students at Michigan State University. Students were asked to read a list of the 29 products and short descriptions of these products, and to pick five products that they thought had the greatest value for themselves, considering each product's cost and usefulness. Four products were given highest multiple picks and thus were selected as the experimental products (see Table 3-2).

Table 3-2. Four Selected Products

Product	Price	Sample	Male	Female
1. Rolodex Electronic Planner	$16.43	20	13	7
2. Electronic Pedometer	$28.60	18	8	10
3. Nutritional Monitor	$38.14	16	4	12
4. Skewdriver Pro Kit	$45.00	16	13	3

Note: The pretest sample consisted of 40 students, with equal numbers of males and females.

These four products were not gender-free items. Male students preferred the Rolodex Electronic Planner and Skewdriver Pro Kit whereas female students preferred the Electronic Pedometer and Nutritional Monitor. The Rolodex Electronic Planner and Skewdriver Pro Kit were presented by a male host and the Electronic Pedometer and Nutritional Monitor by a female host. The lengths of the program segments for these four products ranged from 4 minutes 50 seconds to 7 minutes 15 seconds (see Table 3-5 for the length of each program).

3. Quantification of Scarcity Messages

As discussed in the previous sections, both types (time and quantity) of scarcity messages were categorized as either high or low. The quantification of the two levels of scarcity of time was determined by the QVC programming practice. The quantification of

the two levels of scarcity of quantity was determined from a pretest of MSU students who were asked how many units of a product in TV home shopping program would be perceived as high in scarcity and low in scarcity.

Scarcity of Time. A three-month observation of the QVC programs has indicated that a count-down timer is frequently used in the QVC shopping programs. When the time runs out, a different product is usually introduced. For those who are interested in the previous product, this practice may generate a sense of urgency although viewers can still order the previous item as long as they know the name or the ordering number of that item. The length of a count-down timer in the QVC programs ranges from one minute to four minutes. It is assumed that the shorter the time available for action, the stronger the urgency to act. This study adopted the QVC practice, using a one-minute timer in the high scarcity condition and a four-minute timer in the low scarcity condition.

Scarcity of Quantity. The observation of the QVC programs has revealed that the quantity of an item available varies greatly across products. For certain collectibles like baseball bats signed by a sports celebrity or certain artistic works, the inventory was usually within a few hundred. For other products like kitchenware and jewelry, their availability was almost unlimited. The QVC program hosts usually mention the quantity of an item at the beginning of the show if the inventory of that item is limited. The number of orders for an item is sometimes shown on the screen to indicate the popularity of an item among viewers. The empirical quantification of the two levels of scarcity of quantity cannot be determined by any QVC programming practice.

To determine the specific quantity for each of the two levels — high and low scarcity, a pretest was conducted among seven MSU students. Students were presented a situational question:

> Suppose that you are watching a TV home shopping program, and you see some products being sold on the show. What quantity of a product will make you think it is very scarce? Somewhat scarce? By very scarce, we mean that the inventory of a product is so small that only a small fraction of the program audience is able to buy one. By somewhat scarce, we mean that not everybody who wants one can get one.

Then, they were asked to read the features and prices of the four products and write a number for each scarcity level for each product. The pretest results are in Table 3-3.

Table 3-3. Quantities For High and Low Scarcity: Pretest Results

Product/Condition	Minimum	Maximum	Mean	SD	Low-High Ratio
Rolodex Electronic Planner					
High Scarcity	4	100	39	34.2	3.22
Low Scarcity	8	400	129	134.9	
Nutritional Monitor					
High Scarcity	8	75	26	23.7	3.48
Low Scarcity	10	300	96	110.4	
Skewdriver Pro Kit					
High Scarcity	6	50	22	16.1	3.78
Low Scarcity	8	200	80	67.6	
Electronic Pedometer					
High Scarcity	5	75	32	23.2	3.28
Low Scarcity	10	300	103	100.5	

It was found that students had difficulty in determining the quantity for each scarcity level because they lacked knowledge of the TV home shopping business and its sales in the United States[1]. Thus, the numbers they provided seemed to be too small and unrealistic. However, the pretest was still instructive because a consistent "low-high ratio" was found across four products. A low-high ratio was the quotient of the quantity for the

low scarcity condition divided by the quantity for the high scarcity condition. The ratios for the four products were between three and four. That is, a low scarcity item was 3-4 times more available than a high scarcity product. In light of these findings, this study decided to use 500 units and 2,000 units as the quantities for the high scarcity and low scarcity conditions, respectively.

4. Making the Experimental Programs

A control program was first produced in the studio of the Department of Telecommunication at Michigan State University. It consisted of the four products but contained no scarcity messages. The program began with a QVC logo and then started presenting the four products one after another, with the same QVC logo between two product segments. The four products were presented in the following order: Rolodex Electronic Planner, Nutritional Monitor, Skewdriver Pro Kit, and Electronic Pedometer. The control program was 26 minutes 5 seconds long.

Four experimental programs were then duplicated from the control program and superimposed with different scarcity messages of each type. The specific amount of each type of scarcity message is in Table 3-4.

Table 3-4. Scarcity Messages for the Five Programs

	Time	Quantity
Condition 1	1 minute	500 units
Condition 2	1 minute	2,000 units
Condition 3	4 minutes	500 units
Condition 4	4 minutes	2,000 units
Control	None	None

Different scarcity conditions were created by superimposing different scarcity messages in the programs. The subjects in different conditions viewed the programs that were identical in audio but different in video. Specifically, a phrase "500 Units Available" or "2000 Units Available" was superimposed in the program 20 seconds after each product segment began. The phrase was shown on the left-lower part of the screen, just below the product information window. The phrase was on the screen for 20 seconds and then disappeared. A one-minute timer or a four-minute timer was superimposed in the program at such point of time that a product segment will end when the time is out. The timer was located on the right-bottom corner of the screen. The lengths of the programs and scarcity messages are in Table 3-5.

Table 3-5. Lengths of the Programs and Scarcity Messages
(Minutes : Seconds)

	Conditions 1 & 2			Conditions 3 & 4		
	Beginning	Ending	Length	Beginning	Ending	Length
Rolodex Planner	0:00	6:40	6:40	0:00	6:40	6:40
Quantity Message	0:20	0:40	0:20	0:20	0:40	0:20
Time Message	5:40	6:40	1:00	2:40	6:40	4:00
Nutritional Monitor	7:00	11:50	4:50	7:00	11:50	4:50
Quantity Message	7:20	7:40	0:20	7:20	7:40	0:20
Time Message	10:50	11:50	1:00	7:50	11:50	4:00
Skewdriver Kit	12:10	19:25	7:15	12:10	19:25	7:15
Quantity Message	12:30	12:50	0:20	12:30	12:50	0:20
Time Message	18:25	19:25	1:00	15:25	19:25	4:00
Electronic Pedometer	19:45	26:05	6:20	19:45	26:05	6:20
Quantity Message	20:05	20:25	0:20	20:05	20:25	0:20
Time Message	25:05	26:05	1:00	22:05	26:05	4:00

The length of the four experimental programs was identical to that of the control program because they were duplicates of the control program before scarcity messages were added. Quantity messages for each product appeared at the same time. The length of the count-down timer was one minute for Conditions 1 and 2, and four minutes for Conditions 3 and 4. Timers began one minute or four minutes before the end of each product segment.

Subjects

The demographics of TV home shopping audiences, reported annually in the Simmons Market Research Bureau's Study of Media and Markets, had been reviewed before decisions were made on who would be the subjects of this experiment. According to SMRB, 15.6% of the adult population, or 28.5 million people, reported that they watched TV home shopping programs in 1991, while 72.7% said they did not and 11.7% did not know. Of the viewers, 6.7 millions, or one in four, said that they had bought one or more items from TV home shopping programs in the last three months (see the SMRB statistics in Appendix 3). Similar patterns were found in the 1989 and 1990 SMRB reports. As for viewing and buying behaviors, they were almost flat among most age, education and income groups, even though females were more likely to view and buy from shopping programs than males. Given the exigencies of experimental studies, college students were the experimental subjects.

Students who were taking undergraduate-level courses in the College of Communication Arts and Sciences at Michigan State University in Summer 1994 were selected as the pool of experimental subjects. It also was decided there would be a minimum of 30 subjects in each of the five conditions. Students were recruited in their classrooms by the author. Approximately 200 students volunteered for this experiment.

Instruments

Data were collected with two separate instruments in the experiment. Both were self-administered questionnaires: one was a paper questionnaire and the other was a questionnaire administered on personal computers. The contents of these instruments and the variables they measured are described below.

1. Buying Impulse

Buying impulse is the dependent variable in the study. It was operationalized as the viewer's spontaneous intention to buy a product during a TV home shopping program. Three dimensions of buying impulse were measured:

1. Whether the viewer has a spontaneous intention to buy a product while viewing a shopping program;
2. How quickly the intention occurs in a viewing process; and
3. How strong the intention is.

These variables were measured by a computerized questionnaire executed in CASES[2], a computer-assisted telephone interview program. In this study, this program was used as a self-administered instrument. Each subject sat in front of a personal computer, and, while viewing a product being sold in the program, they were asked to answer this question shown on the computer screen:

> As soon as you decide you want to buy this product, type "1" (for YES) and press the "Enter" key. When you decide you do not want to buy it, type "5" (for NO) and press the "Enter" key.

This question was asked for all four products. If the answer was yes, then the subject was asked how strong his or her intention was to buy the product. The response categories were: very strong, somewhat strong, somewhat weak, very weak, and don't

know. In addition, the computerized questionnaire was designed so that the time the subject keyed in an answer was automatically recorded in increments of hundredths of seconds. This resulted in a measure of the "reaction time[3]" of the subjects for each product (the script of the computerized questionnaire is in Appendix 4).

2. Believability of Scarcity Messages

Subjects were asked how believable they thought the information about time limits and quantity available were. The response categories were: very believable, believable, somewhat believable, not believable at all, and don't know.

3. Evaluation of the Products

Subjects also were asked to evaluate each of the four products in five aspects on a seven-point scale. The five aspects were: good/bad, useful/useless, good quality/poor quality, a bargain/costs too much, and like/dislike. Response categories ranged from 1 to 7, with 4 as the neutral point.

4. Materialism

The materialism scale developed by Richins and Dawson (1992) was used in this study because it was found to be of relatively high reliability and validity, and of virtually no contamination from social desirability bias. This scale consists of 18 statements, measuring three factors of the construct — acquisition centrality, acquisition as the pursuit of happiness, and possession-defined success (Richins & Dawson, 1992). Seven statements measure the acquisition centrality: I usually buy only the things I need; I try to keep my life simple, as far as possessions are concerned; The things I own aren't all that important to me; I enjoy spending money on things that aren't practical; Buying things gives me a lot of pleasure; I like a lot of luxury in my life; and I put less emphasis on material things than most people I know. Five statements measure the acquisition as the

pursuit of happiness: I have all the things I really need to enjoy life; My life would be better if I owned certain things I don't have; I wouldn't be any happier if I owned nicer things; I'd be happier if I could afford to buy more things; and It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like. Six statements measure the possession-defined success: I admire people who own expensive homes, cars, and clothes; Some of the most important achievements in life include acquiring material possessions; I don't place much emphasis on the amount of material objects people own as a sign of success; The things I own say a lot about how well I'm doing in life; I like to own things that impress people; and I don't pay much attention to the material objects other people own. The response categories for each of the statements were: strongly agree, agree, neutral, disagree, and strongly disagree.

5. Background Information

Questions were asked about the subjects' media behavior: how many hours of TV they watch on a typical weekday and a typical weekend (response categories were: none, less than 1 hour, 1-2 hours, 3-4 hours, 5 or more hours, and don't know); how many magazines and newspapers they read regularly (none, one, two, three, four or more, and don't know); and whether they had ever watched any TV home shopping channels before (yes or no). Questions also were asked about their purchase history: how many times they made purchases by mail in the past six months (none, one time, two times, three times, four or more times) and whether they had ever ordered anything from TV home shopping programs (yes or no).

Demographic questions asked of the subjects were their gender, their age as of their last birthday, their major, their monthly spending after paying tuition, rent, utilities and food (under $99, $100-$199, $200-$299, $300-$399, $400-$499, $500 or more, and don't know), and the total yearly income of their parent or parents (under $9,999; $10,000-

$19,999; $20,000-$29,999; $30,000-$39,999; $40,000-$49,999; $50,000 or more; and don't know).

Experimental Procedures and Data Collection

The experiment was conducted in the Information Technology and Services Lab of the Department of Telecommunication at Michigan State University. Forty-eight one-hour experimental sessions were held in 15 days between May 24 and June 15, 1994. Exactly 150 students participated in the experiment as subjects. Among the 48 sessions, four sessions had eight subjects per session. For most of the sessions, the number of subjects per session ranged from 2 to 5. There was only one subject in 12 sessions.

1. Experimental Procedures

The CASES application software and the computerized questionnaire were installed on the computer server and accessible to eight personal computers in the Lab. Each subject signed a consent form before he or she was assigned an ID for the experiment. A session began with an introduction to the experiment by the author:

> In this experiment, you will be watching a TV home shopping program. The program presents four products. It begins with a QVC logo and then follows the first product. When the first product is over there is another QVC logo, followed by the second product. This pattern continues for the third and fourth product. The program lasts about 26 minutes. While you are watching the program, you answer a couple of questions for each product on your computer.

The subjects then were asked to activate a training questionnaire on the computer. Under the author's guidance, they went through all the questions they would answer in the formal experiment. After all subjects learned how to handle the computerized questionnaire, the author started a shopping program videotape on a 3/4 inch tape deck and

the program was shown on a 27-inch television set. The subjects pressed a key on the keyboard to activate the formal questionnaire when they heard the very first word from the program host. The first question was shown on the computer screen and an experimental session began.

After the shopping program ended and they answered all the questions, the subjects were given another paper questionnaire to fill out. The entire session took approximately 45 minutes. The subjects were debriefed after they turned in the second questionnaire.

2. Randomization

The subjects were randomly shown one of the five different shopping programs (four experimental programs and one control program). The order in which the five programs were shown was determined initially with random numbers. After each of the five programs was shown once, the program that was viewed by fewest subjects was shown next. Thus, the number of subjects for each condition accumulated approximately evenly.

3. Subject Characteristics

Among the 150 students who participated in the study, 55% were females. The age of the sample concentrated on 20 (19%), 21 (29%) and 22 (23%). Advertising majors accounted for 32% of the subjects; other majors in the College of Communications Arts and Sciences (communication, journalism, speech, and telecommunication) 43%; business majors 5% and all other majors 19%. A profile of the subjects is in Table 3-6.

Table 3-6. Subject Characteristics

	Frequency	Sample Percentage
Gender		
Male	67	45%
Female	83	55
Age		
18 - 19	12	8
20	28	19
21	44	29
22	34	23
23 and Over	29	19
Missing	3	2
Major		
Advertising	48	32
Com/Journalism/Speech/Telecom	64	43
Business	8	5
Other	29	19
Missing	1	1

Preliminary Data Analysis

Data automatically recorded in the computerized instrument were outputted using the CASES program when the experiment was completed. Data from the paper questionnaires were keypunched. The two data sets were merged through SPSS for Windows (version 6.0) and evaluated prior to analysis. As indicated by Tabachnick and Fidell (1983), the first step is to inspect out-of-range values, plausible means and dispersions, and variation for accuracy of input. Frequencies for all variables were run to check for keypunch errors. Variables with suspicious distributions were checked for accuracy of input.

The next step is to examine size and distribution of missing data. If only a few units of data are missing from a large data set, the problem will not be serious and almost all procedures for handling them will yield similar results (Tabachnick & Fidell, 1983). Although there are no rules regarding how much missing data can be tolerated for a given size of sample, it was decided that for this study of 150 subjects, variables with 5% or less data missing should not present serious problems for data analysis. Using this criterion, no variables presented serious problems.

The third step is to identify and deal with outliers. Outliers are cases with such extreme values on one variable that they unduly affect the average value or the variability of the scores. Because all questions in both instruments of this study were close-ended there were no outliers.

1. Data Transformation

Measures of the subject's response time for each of the four products were automatically recorded in intervals of a hundredth of a second. These variables were converted into the number of minutes with two decimal places. Such a conversion made the measure more intuitive, and easier for comparisons with the lengths of the experimental programs and scarcity messages.

2. Product Evaluation Indices

The subjects were asked to evaluate each of the four products in five aspects on a seven-point scale. The five aspects are: good/bad, useless/useful, good quality/poor quality, costs too much/a bargain, and like/dislike. The direction of two pairs of the adjective phrases (useless/useful and costs too much/a bargain) was deliberately reversed to avoid response set bias. The score for each aspect was so coded that the higher the score,

the more positive the evaluation. The scores for all five aspects were summed into a product evaluation index. This study categorized a product evaluation index at three levels: negative evaluation (scored 0 to 17.5), neutral evaluation (17.6 to 22.5), and positive evaluation (22.6 to 35)[4]. The number of subjects at each level is in Table 3-7.

Table 3-7. Product Evaluation Indices

Product	Evaluation				Scale Reliability
	Negative	Neutral	Positive	Missing	α
1. Rolodex Electronic Planner	39	36	70	5	.85
2. Electronic Pedometer	57	53	36	4	.83
3. Nutritional Monitor	41	44	60	5	.81
4. Skewdriver Pro Kit	77	37	32	4	.86

3. Materialism Measurement

This study used the materialism scale developed by Richins and Damson (1992) to measure the materialistic values of the subjects. This scale consists of 18 statements, measuring three factors of materialism. The validity, reliability and the factorial structure of the scale have been tested in the study by Richins and Dawson (1992). To verify the validity and reliability of the scale, a series of confirmatory factor analyses was conducted in this study.

Confirmatory factor analyses (CFA) allow the researchers to specify expected dimensions and determine how well the given items fit the theoretical measurement models (Hunter & Gerbing, 1982). Several statistical packages are available to conduct confirmatory factor analyses. Among them are PACAGE (Hunter & Lim, 1987), EQS

(Bentler, 1989), and LISREL (Jöreskog & Sörbom, 1989)[5]. This study used LISREL 7.2 in SPSS for Windows.

LISREL begins a CFA with a priori specification of the factorial structure of a measurement model (Jöreskog & Sörbom, 1989). It reproduces a series of parameters from the covariance matrix of the observed variables by the method of maximum likelihood[6]. These parameters can be used to assess a measurement model in terms of both global and local fit to the data. Key parameters of the global-fit test are chi-square and its probability for a given degrees of freedom. If a measurement model fits the data, the chi-square should be relatively small, indicating that the covariance of observed variables are not significantly different from the theoretical variance of these variables given the specified factorial structure. T-values can be used to assess the significance of factor loading of individual items on specified factors or latent variables. Parameters whose t-values are larger than two in magnitude are normally judged to be different from zero (Jöreskog & Sörbom, 1989).

LISREL also produces a table of modification indices from which noisy items can be easily identified when the model does not fit the data. Deleting a noisy item from the model or setting the offending item free — assuming that item also measures some factor other than the one it is supposed to measure — usually, but not always, decreases the overall chi-square and leads to the improvement of the model's fit. After a noisy item is dealt with, the CFA procedures should be repeated.

Table 3-8 presents the initial results of a confirmatory factor analysis of materialism variables. Although the factor loadings of most items are relatively strong and only two are smaller than .30, the chi-square was quite large, indicating that the global fit of the model was not good. Some revision of the model is thus necessary.

Table 3-8. Items and Factor Loading of Materialism: Initial Results

Item	Factor I	Factor II	Factor III
Factor I: Acquisition Centrality			
I like a lot of luxury in my life.	.706		
Buying things give me a lot of pleasure.	.650		
I try to keep my life simple, as far as possessions are concerned.	.564		
I usually buy things I need.	.515		
I enjoy spending money on things that aren't practical.	.431		
I put less emphasis on material things that most people I know.	.320		
The things I own aren't all that important to me.	.250		
Factor II: Acquisition as the Pursuit of Happiness			
My life would be better if I owned certain things I don't have.		.650	
I'd be happier if I could afford to buy more things.		.632	
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.		.610	
I wouldn't be any happier if I owned nicer things.		.395	
I have all things I really need to enjoy life		.274	
Factor III: Possession-Defined Success			
I like to own things that impress people.			.925
I admire people who own expensive homes, cars, and clothes.			.698
I don't place much emphasis on the amount of material objects people own as a sign of success.			.657
The things I own say a lot about how well I'm doing in my life.			.621
Some of the most important achievements in life include acquiring material possessions			.577
I don't pay much attention to the material objects other people own.			.486

Note: Chi-Square (132 d.f.) = 261.52 (p = .000).

The table of modification indices was used to identify offending items in the model. Six items with the largest residuals or weak factor loadings were detected and dropped in the sequential CFA runs and eventually, the analysis resulted in a 12-item measurement model of materialism that fits the data (see Table 3-9). The chi-square of the new model was 58.57, with the probability of .217. The 12 items accounted for 95.5 of the total variance of the model. As for the local fit of individual items, the t-value associated with each item ranged from 4.1 to 10.5, indicating that all factor loadings were significantly different from zero (Jöreskog & Sörbom, 1989). The correlations were .61 between acquisition centrality and acquisition as the pursuit of happiness, .87 between acquisition centrality and possession-defined success, and .60 between acquisition as the pursuit of happiness and possession-defined success.

The reliability alpha was .63 for the subscale of acquisition centrality, .61 for the acquisition as the pursuit of happiness, and .78 for the possession-defined success. A combination of the three subscales resulted in a more reliable measure of materialism (alpha = .83) Therefore, this study used the overall scale as the measure of materialism.

Table 3-9. Items and Factor Loadings of Materialism: Final Results

Item	Factor I	Factor II	Factor III	Alpha
Factor I: Acquisition Centrality				.63
I like a lot of luxury in my life.	.767			
Buying things give me a lot of pleasure.	.627			
I try to keep my life simple, as far as possessions are concerned.*	.472			
I put less emphasis on material things that most people I know.*	.312			
Factor II: Acquisition as the Pursuit of Happiness				.61
I'd be happier if I could afford to buy more things.		.737		
My life would be better if I owned certain things I don't have.		.626		
I wouldn't be any happier if I owned nicer things.*		.450		
Factor III: Possession-Defined Success				.78
I like to own things that impress people.			.938	
I admire people who own expensive homes, cars, and clothes.			.712	
I don't place much emphasis on the amount of material objects people own as a sign of success			.654	
The things I own say a lot about how well I'm doing in my life.			.598	
I don't pay much attention to the material objects other people own.*			.498	
Correlations between Factors				
Factor II	.61			
Factor III	.87	.60		
Overall Scale				.83

Note: An asterisk indicates reverse scored items.

Chi-Square (51 d.f.) = 58.57 (p = .217); GFI Index = .94; AGFI Index = .91;

Each item was so scored that the higher the score, the higher materialism it represents. Scores of all 12 items were then summed to make the scale score. Because

each item was measured on a seven-point scale, the possible sum of the 12 items should range from 12 to 84. However, the actual sum ranged from 18 to 56, with a mean of 35.85 and standard deviation of 7.22. As stated in the preceding section, materialism is categorized into three levels: low, medium, and high. The cutoff points for categorization were decided by the percentile ranking method (McClave & Dietrich 1985). The materialism scores associated with the commutative 33.3% and 66.6% of the valid frequency were used as the cut for low level and high level, respectively. The numbers of subjects in each level and the ranges of subscale scores are in Table 3-10.

Table 3-10. Materialism Scores by Level

		Materialism Score			
Level	Subjects	Minimum	Maximum	Mean	SD
Low	52	18	33	28.1	4.0
Medium	48	34	39	36.4	1.8
High	47	40	56	43.9	3.3

The numbers of subjects were relatively even across three levels and the mean differences among the three levels were approximately 8 points. Standard deviations between the low level and high level were very similar whereas the standard deviation of the medium level was relatively small.

4. Randomization Check

As described in the preceding section, the subjects were randomly shown one of the four experimental programs and one control program. To examine the outcome of this procedure, comparisons were made across five conditions on the subjects' media usage,

purchase history, monthly spending, income of parent or parents and gender. The results are shown in Table 3-11.

Table 3-11. Characteristics of the Subjects in Five Conditions

	Cond. 1	Cond. 2	Cond. 3	Cond. 4	Control	F/χ^2
Watch TV on Weekday	3.33	3.48	3.42	3.59	3.47	.319
Watch TV on Weekend	3.26	3.28	3.42	3.32	3.23	.1450
Read magazines	2.76	2.70	2.61	2.66	2.67	.0578
Read Newspapers	2.10	2.17	2.23	2.21	2.24	.1372
Purchases by Mail	2.23	1.73	2.23	1.93	1.80	1.1329
Orders from TV Programs	13.8%	10.0%	6.5%	17.2%	10.0%	2.011
Watch Shopping Programs	79.3%	73.3%	80.6%	79.3%	73.3%	.86491
Gender: females	48.3%	63.3%	48.4%	62.1%	56.7%	2.516
Monthly Spending	2.93	2.63	2.26	2.92	2.25	1.273
Income of Parent(s)	5.04	5.08	5.14	5.08	5.21	.0653

Note. Response categories of the ten variables in the table are in the instruments section of this chapter.

No significant differences across all five conditions exist for the ten variables. It can be assumed that the randomization was successful and that the subjects in the five conditions were not significantly different from each other. Therefore, differences in the subjects' buying impulse are attributable to the manipulations — scarcity messages of different levels.

Endnotes

[1] In 1993, the QVC shopping programs reached 45.8 million households; the Home Shopping Club programs reached 62.5 million households, according to the 1993 annual reports of these two companies.

[2] CASES (Version 3.5, July 1992), the Computer-Assisted Survey Execution System, is developed by the Computer-assisted Survey Methods Program (CSM) at the University of California at Berkeley.

[3] Reaction time is a standard measure in cognitive and perceptual psychology. It is commonly defined as the time from the onset of a stimulus to the time the subject responds (James, et al., 1992).

[4] A sum of all five 7-point subscales resulted in an index score ranged from 5 to 35. Instead of using 20 as the neutral point, this study used 17.6 to 22.5 as the range of neutral evaluation for the index.

[5] Statistical methods underlying confirmatory factors analysis are different for these three packages. PACKAGE uses the least square method whereas LISREL uses the maximum likelihood method. EQS gives users options for the least square, maximum likelihood, and other several methods.

[6] For a brief discussion of the maximum likelihood method, see Pedhazur (1982) in page 638.

CHAPTER 4: RESULTS

This chapter presents three types of results. It begins with a description of the characteristics of buying impulse of the experimental subjects. Because this study is one of the initial attempts to investigate the buying impulse in TV home shopping settings, it is constructive to conduct some descriptive analyses of this phenomenon. Next, the main body of this chapter tests our hypotheses. Finally, this chapter presents some exploratory analyses beyond hypothesis testing as to the causality of buying impulse in TV home shopping settings.

Buying Impulse in General: Descriptive Findings

This section describes the characteristics of buying impulse for the entire sample. As discussed in preceding sections, three dimensions of buying impulse are examined in this study: 1) whether the viewers intend to buy a product while viewing the program; 2) how quickly an intention occurs in the viewing process; and 3) how strong the intention is to buy a product. The percentages who experienced the impulse to buy each product are in Table 4-1. Of the 150 subjects, 32% (48 subjects) intended to buy a Rolodex Electronic Planner whereas only 19% (29 subjects) wanted to buy a Nutritional Monitor.

Table 4-1. Buying Impulse for Each Product

Product	n	Percent
1. Rolodex Electronic Planner	48	32%
2. Nutritional Monitor	29	19
3. Skewdriver Pro Kit	35	23
4. Electronic Pedometer	35	23

Note: The sample consisted of 150 students, of whom 83 were female.

A number of subjects had a buying impulse for more than one product, as shown in Table 4-2. Numbers on diagonal were numbers of subjects who want to buy that particular item whereas numbers off diagonal were numbers of subjects who also want to buy other items. For instance, among 48 subjects who intended to buy a Rolodex Electronic Planner, 15 also intended to buy a Nutritional Monitor; 10 also intended to buy a Skewdriver Pro Kit; and 17 also intended to buy an Electronic Pedometer. In the same fashion, of 29 people who intended to buy a Nutritional Monitor, 15 also intended to buy a Rolodex Electronic Planner while 6 also intended to buy a Skewdriver Pro Kit, etc. Multiple purchases existed for the two other products. Of the entire sample, 40% intended to buy none of the products, 33% intended to buy one product, 18% intended to buy two products, and 9% intended to buy three or four products.

Table 4-2. Multiple Purchases of the Sample

(n)

	1	2	3	4
1. Rolodex Electronic Planner	48			
2. Nutritional Monitor	15	29		
3. Skewdriver Pro Kit	10	6	35	
4. Electronic Pedometer	17	14	10	35

The second dimension of buying impulse is response time — how quickly an intention to buy occurs in a TV home shopping viewing process. In the experiment, the time the subjects keyed in whether or not they wanted to buy a product was automatically recorded in the computerized instrument. Response time for each product was exactly the time from the beginning of a product segment to the time the subject indicated a product purchase intention. Table 4-3 presents the findings as to how quickly the subjects made their decisions.

Table 4-3. Response time for Two Different Decisions

(Minutes : Seconds)

Product	Segment Length	Who Decided to Buy		Who Decided Not to Buy		
		Time	n	Time	n	t
1. Rolodex Electronic Planner	6:40	3:31	48	2:29	102	3.02**
2. Nutritional Monitor	4:50	3:18	29	2:16	121	3.72***
3. Skewdriver Pro Kit	7:15	2:46	35	2:07	115	2.09*
4. Electronic Pedometer	6:20	2:37	35	2:01	115	2.11*

*$p < .05$; **$p < .01$; ***$p < .001$.

There are three interesting findings on the response time of buying impulse. First, the subjects had made their decisions considerably before a product segment ended. For instance, the Rolodex Electronic Planner segment lasted 6 minutes and 40 seconds and the subjects made their decisions in the first 2.5 to 3.5 minutes. The subjects did not need to view the entire segment to make their purchase decisions.

Second, it took significantly more time to decide to buy a product than to decide not to buy a product. For example, it took the subjects an average of 3 minutes 31 seconds to decide to buy a Rolodex Electronic Planner whereas it took the subjects only 2 minutes 29 seconds to decide not to buy the same product. This pattern was consistent across all four products.

Finally, as Table 4-3 indicates, the subjects tended to accelerate their decisions for subsequent products. That is, they could make quicker and quicker decisions as the viewing process continued. To test the significance of these differences as to how quickly

a decision was made, t-tests were conducted for each pair of the products. Substantial differences existed for products that were not adjacent. For instance, it took less time for the subjects to make a decision for the third product than the first one, and to make a decision for the fourth product than the second one. This finding suggests there is a learning curve in the experiment.

The third dimension of buying impulse is how strong an intention is to buy a product. The subjects who indicated that they had an intention to buy a product were asked the question: "How strong is your intention to buy the product?" The subjects who had no intention to buy a product skipped this question. Table 4-4 presents the findings on this question for all four products.

Table 4-4. Strength of the Intention to Buy a Product

(%)

Product	n	Very Strong	Somewhat Strong	Somewhat Weak	Very Weak	DK
1. Rolodex Electronic Planner	48	15%	48%	31%	6%	0%
2. Nutritional Monitor	29	21	55	24	0	0
3. Skewdriver Pro Kit	35	18	44	35	3	3
4. Electronic Pedometer	35	17	51	14	11	6

Among the subjects who wanted to buy a product, 44% to 55% had a "somewhat strong" intention. A sum of "very strong" and "somewhat strong" ranged from 62% (for the Skewdriver Pro Kit) to 76% (for the Nutritional Monitor). This finding suggests that if only strong or very strong intention to buy an unplanned product is categorized as buying impulse, as Rook (1987) proposed, then buying impulse so defined will still account for a large proportion of purchases in TV home shopping settings.

Testing the Hypotheses

1. Scarcity Messages and Buying Impulse

The first three hypotheses address the issue as to whether scarcity affects the buying impulse in TV home shopping settings. The components of these hypotheses are three dimensions of a buying impulse (an intention to buy an unplanned item, response time, and strength of an intention) and two scarcity conditions (the scarcity condition versus non-scarcity condition). Tests were conducted to examine the influence of each type of scarcity message — time and quantity — for all four products in the two scarcity conditions.

Hypothesis 1 maintains that a buying impulse is more likely to occur in a scarcity condition than in a non-scarcity condition. To test the hypothesis, the four scarcity conditions (high scarcity of time, low scarcity of time, high scarcity of quantity, and low scarcity of quantity) were combined into the scarcity condition and compared with the control condition (non-scarcity condition). Crosstabulations were made of the occurrences of buying impulse in these two conditions. The findings in Table 4-5 indicate that no chi-squares were significant. Hypothesis 1 was not confirmed.

Hypothesis 2 asserts that the response time of a buying impulse is shorter in the scarcity condition than in the non-scarcity condition. The t-test results of the response time in these two conditions, presented in Table 4-6, indicate that the response time in the scarcity condition was shorter than in the non-scarcity condition and this pattern was consistent across all four products. However, only the difference in response time for the Nutritional Monitor was significant ($t = 3.36$; $p < .01$). A mean z-score[1] for all four products was calculated and analyzed in a t-test. The results ($t = 1.72$ and $p = .089$) are in Table 4-6. These findings suggest that scarcity messages do affect the response time but this effect was relatively weak in this study.

Table 4-5. Intention to Buy in Scarcity and Non-Scarcity Conditions

Product	Scarcity	Non-Scarcity	χ^2
1. Rolodex Electronic Planner	31%	37%	.375
2. Nutritional Monitor	21	13	.866
3. Skewdriver Pro Kit	23	27	.233
4. Electronic Pedometer	24	20	.233

Table 4-6. Response Time in Scarcity and Non-Scarcity Conditions

(Minutes : Seconds)

Product	Scarcity	Non-Scarcity	t
1. Rolodex Electronic Planner	3:16	4:21	1.52
2. Nutritional Monitor	3:11	4:04	3.36**
3. Skewdriver Pro Kit	2:39	3:11	.88
4. Electronic Pedometer	2:33	2:58	.74
Mean Z-Score	-.0396	.3438	1.72

**$p < .01$

Hypothesis 3 declares that a buying impulse is stronger in the scarcity condition than in the non-scarcity condition. T-tests were conducted to compare the strength of buying impulse in the scarcity and non-scarcity conditions. The results are in Table 4-7.

Table 4-7. Strength of Buying Impulse in Scarcity and Non-Scarcity Conditions

(1 = very weak; 2 = somewhat weak; 3 = somewhat strong; 4 = very strong)

Product	Scarcity	Non-Scarcity	t
1. Rolodex Electronic Planner	2.8	2.5	.77
2. Nutritional Monitor	3.1	2.3	2.46*
3. Skewdriver Pro Kit	2.8	2.6	.57
4. Electronic Pedometer	2.8	2.8	.14
Mean Z-Score	-.0331	-.3229	1.32

*$p < .05$

The findings in Table 4-7 show that the buying impulse in the scarcity condition was stronger than in the non-scarcity condition for three of the four products. For these three products, the buying impulse was "somewhat strong" in the scarcity condition whereas it was between "somewhat weak" and "somewhat strong" in the comparison condition. However, only the strength of buying impulse for the Nutritional Monitor was significantly different between the scarcity and non-scarcity conditions, and the overall effect of scarcity messages was relatively weak, as indicated by the mean z-score ($t = 1.32$ and $p = .189$) in Table 4-7. Given these findings, it is prudent to conclude that Hypothesis 3 is partly confirmed in this study.

2. High Scarcity and Low Scarcity

Hypothesis 4 asserts that a buying impulse is more likely to occur in a high scarcity condition than in a low scarcity condition. This hypothesis is tested in both quantity scarcity and time scarcity conditions. Hypothesis 5 maintains that a buying impulse is more likely to occur in the high scarcity of time condition than in the high scarcity of

quantity condition. With a factorial design, these two hypotheses can be tested in one 2-way analysis of variance. Table 4-8 presents the ANOVA results.

An inspection of the cell means in Table 4-8 shows there were no significant segment interactions between the scarcity of quantity and scarcity of time on the buying impulse for any product. Thus, we can further examine the main effects of both types of scarcity to test Hypothesis 4. No significant differences were found in the buying impulse between the high and low scarcity of quantity conditions. However, it seems that the high scarcity of time had an impact on the buying impulse. The impact of high scarcity of time on impulse buying was consistent across both high scarcity of quantity and low scarcity of quantity conditions for seven of eight possible comparisons. An exception existed only in the low scarcity of quantity condition for the Skewdriver Pro kit where the two means (.24 and .23) were virtually identical. Nevertheless, these differences were significant only for one product, the Nutritional Monitor. For this product, high scarcity of time had a significant impact on the buying impulse. An analysis of variance of the mean z-score of all four products (see Table 4-8) suggests that high scarcity of time had a significant overall impact on the buying impulse for all four products. Thus, it can be concluded that Hypotheses 4 was confirmed in the time scarcity condition but not in the quantity scarcity condition. Given the findings that high scarcity of time had a significant impact on the buying impulse whereas high scarcity of quantity had no significant impact on any product, it is concluded that Hypothesis 5 also was confirmed.

Table 4-8. Buying Impulse in High and Low Scarcity Conditions

(0 = not intend to buy; 1 = intend to buy)

Product	Scarcity of Time	Scarcity of Quantity Low	High	Mean		F
1. Rolodex Electronic Planner	Low	.28	.19	.23	Main Effects	1.593
	High	.33	.43	.38	Quantity	.011
					Time	3.180
	Mean	.31	.31		Interaction	1.172
					Explained	1.452
2. Nutritional Monitor	Low	.14	.13	.13	Main Effects	3.535*
	High	.40	.17	.28	Quantity	2.791
					Time	4.163*
	Mean	.27	.15		Interaction	2.394
					Explained	3.155*
3. Skewdriver Pro Kit	Low	.24	.16	.20	Main Effects	.255
	High	.23	.27	.25	Quantity	.091
					Time	.413
	Mean	.24	.21		Interaction	.539
					Explained	.350
4. Electronic Pedometer	Low	.24	.13	.18	Main Effects	2.363
	High	.37	.23	.30	Quantity	2.484
					Time	2.163
	Mean	.31	.18		Interaction	1.581
					Explained	1.581
Mean Z-Score	Low	-.05	-.21	-.13	Main Effects	4.480*
	High	.22	.06	.14	Quantity	2.244
					Time	6.585*
	Mean	.09	-.08		Interaction	.002
					Explained	2.987*

*$p < .05$.

3. Scarcity Messages and Materialism

Hypothesis 6 states that a buying impulse is more likely to occur among highly materialistic viewers, somewhat likely to occur in moderately materialistic viewers, and less likely in least materialistic viewers. One-way analysis of variance of the buying impulse across three levels of materialism tests this hypothesis. Table 4-9 presents the results.

Table 4-9. Impact of Materialism on Buying Impulse

(0 = Not intend to buy; 1 = intend to buy)

Product	Materialism			F
	Low	Medium	High	
1. Rolodex Electronic Planner	.38	.27	.30	.811
2. Nutritional Monitor	$.10^{b}$	$.15^{b}$	$.34^{a}$	5.524**
3. Skewdriver Pro Kit	.15	.23	.34	2.414
4. Electronic Pedometer	.15	.21	.36	3.185*
Mean Z-Score	$-.12^{b}$	$-.07^{b}$	$.22^{a}$	5.082**

Note. Different superscripts denote significant mean differences.
*$p < .05$; **$p < .01$.

Table 4-9 shows that a linear and significant impact of materialism on the buying impulse existed for two of the four products, the Nutritional Monitor and Electronic Pedometer. The impact of materialism also was linear for the Skewdriver Pro Kit but not significant. A Scheffe test was conducted to examine the pairwise differences between three levels of materialism for the Nutritional Monitor and Electronic Pedometer. The findings are that for the Nutritional Monitor, high materialistic subjects were more likely to buy on impulse than moderately materialistic and low materialistic subjects, and that there was no significant difference between moderately materialistic subjects and low

materialistic subjects. No pairwise differences were found for the Electronic Pedometer. An analysis of variance of the mean z-score for the four products (see Table 4-9) showed that high materialism had a stronger impact on the buying impulse than low and moderate materialism but again, no significant difference existed between low and moderately materialistic viewers. Therefore, it is concluded that Hypothesis 6 is only partially supported by the data.

Hypothesis 7 claims that the response time is shortest in highly materialistic viewers, somewhat short in moderately materialistic viewers, and longest in least materialistic viewers. One-way analyses of variance were conducted to test this hypothesis. The results are in Table 4-10.

Table 4-10. Response Time by Materialism

(Minutes : Seconds)

Product	Materialism			
	Low	Medium	High	F
1. Rolodex Electronic Planner	4:21	2:37	2:59	3.514*
2. Nutritional Monitor	3:29	3:27	3:07	.326
3. Skewdriver Pro Kit	2:36	2:41	2:56	.164
4. Electronic Pedometer	2.31	2:23	2:49	.438
Mean Z-Score	.2814	-.0772	-.0961	1.65

*$p < .05$.

The findings in Table 4-10 shows that materialism has a significant impact on buying impulse only for one product, the Rolodex Electronic Planner. However, the shortest response time was for the moderately materialistic viewers instead of the high

materialistic viewers as proposed. A Scheffe pairwise comparison failed to identify any significant differences between high materialism and moderate materialism or between moderate materialism and low materialism. The mean z-score shows no significant difference in response time across three materialism levels ($F = 1.65$ and $p = .199$) Thus, Hypothesis 7 was not confirmed.

Hypothesis 8 maintains that a buying impulse is strongest in highly materialistic viewers, somewhat strong in moderately materialistic viewers, and weak in least materialistic viewers. The strength of buying impulse was compared across three levels of materialism through one-way analyses of variance. The findings, presented in Table 4-11, indicate that materialism had no significant impact on the strength of buying impulse for all product. Hypothesis 8 was not confirmed.

Table 4-11. Strength of Buying Impulse by Materialism

(1 = very weak, 2 = somewhat weak, 3 = somewhat strong, 4 = very strong.)

	Materialism			
Product	Low	Medium	High	F
1. Rolodex Electronic Planner	2.7	2.8	2.7	.085
2. Nutritional Monitor	3.2	3.0	2.9	.280
3. Skewdriver Pro Kit	3.0	3.0	2.5	2.084
4. Electronic Pedometer	2.7	2.9	2.8	.132
Mean Z-Score	-.0311	-.0182	-.1884	.373

This study assumes that materialism adds to the size of effect of scarcity messages on the buying impulse of the TV home shopping program viewers. Hypothesis 9

maintains that a buying impulse is more likely to occur in highly materialistic viewers who are in a high scarcity condition than in less materialistic viewers who are in a low scarcity condition. To test this hypothesis, materialism was categorized at two levels (high and low). A three-way analysis of variance was conducted for all four products. No significant main effects and interactions were found for the Rolodex Electronic Planner and Skewdriver Pro kit; their means of impulse buying are reported in Table 4-12. Tables 4-13 and 4-14 show the three-way ANOVA results for two other products — the Nutritional Monitor and Electronic Pedometer, respectively.

Table 4-12. Buying Impulse by Scarcity and Materialism: Rolodex Electronic Planner and Skewdriver Pro Kit

(0 = Not intend to buy; 1 = intend to buy)

	Low Materialism		High Materialism	
Scarcity of Time	Low Scarcity of Quantity	High Scarcity of Quantity	Low Scarcity of Quantity	High Scarcity of Quantity
Rolodex Electronic Planner				
Low	.23 (n=13)	.29 (14)	.27 (15)	.12 (17)
High	.30 (10)	.62 (16)	.35 (20)	.23 (13)
Skewdriver Pro Kit				
Low	.31	.0	.20	.29
High	.10	.19	.30	.38

The most striking finding in Table 4-12 was there was a significant interaction between the scarcity of quantity and materialism. An examination of the cell means of these two variables suggests that a buying impulse for the Nutritional Monitor was most likely to occur among high materialistic subjects in the high scarcity time but low scarcity of quantity condition. This finding was replicated for the Electronic Pedometer (see Table 4-13).

These findings did not support Hypothesis 9 which states that a buying impulse is more likely to occur in high materialistic viewers in the high scarcity condition.

Table 4-13. Buying Impulse by Scarcity and Materialism: Nutritional Monitor

(0 = Not intend to buy; 1 = intend to buy)

	Low Materialism		High Materialism	
Scarcity of Time	Low Scarcity of Quantity	High Scarcity of Quantity	Low Scarcity of Quantity	High Scarcity of Quantity
Low	.0 (n=13)	.21 (14)	.27 (15)	.06 (17)
High	.10 (10)	.25 (16)	.55 (20)	.08 (13)

	F
Main Effects	3.174*
Quantity	2.463
Time	4.384*
Materialism	1.848
2-Way Interactions	5.136**
Quantity and Time	1.514
Quantity and Materialism	13.199***
Time and Materialism	.302
3-way Interaction	.493
Explained	3.632**

Table 4-14. Buying Impulse by Scarcity and Materialism: Electronic Pedometer

(0 = Not intend to buy; 1 = intend to buy)

	Low Materialism (n)		High Materialism (n)	
Scarcity of Time	Low Scarcity of Quantity	High Scarcity of Quantity	Low Scarcity of Quantity	High Scarcity of Quantity
Low	.15 (13)	.21 (14)	.33 (15)	.06 (17)
High	.20 (10)	.38 (16)	.45 (20)	.08 (13)

	F
Main Effects	1.627
Quantity	2.545
Time	2.180
Materialism	.032
2-Way Interactions	2.584
Quantity and Time	.000
Quantity and Materialism	7.692**
Time and Materialism	.066
3-way Interaction	.454
Explained	1.870

Beyond Hypothesis Testing

This study basically takes a behavioral approach. One assumption underlying this approach is that all behavior is controlled by environmental factors (Peter & Olson, 1990). Thus, this study focuses on the influence of scarcity messages on the buying impulse of TV home shopping viewers. Although this study included the viewer's materialism as an independent variable, the fact that many hypotheses were not confirmed suggests a need to include more cognitive factors in the causal analysis of the buying impulse in TV home shopping settings. This study measured some other cognitive variables (product evaluation, believability of scarcity messages, etc.) that can be used in a further exploration

of the causality of the buying impulse. This section presents the results of some exploratory analyses that were not proposed in the research hypotheses.

1. Product Evaluation and Buying Impulse

As noted in Chapter 3, this study asked the subjects to evaluate each of the four products after they had viewed the shopping program. Evaluations were made on five aspects of a product and the scores were summed into a product evaluation index. The index was further categorized at three levels: negative, neutral and positive (see Chapter 3). An exploratory analysis of the relationships of these indices and the buying impulse revealed some significant findings which are presented in Table 4-15.

Table 4-15. Buying Impulse by Product Evaluation

(0 = Not intend to buy; 1 = intend to buy)

	Evaluation			
Product	Negative	Neutral	Positive	F
1. Rolodex Electronic Planner	$.05^{b}$	$.06^{b}$	$.59^{a}$	35.078***
2. Nutritional Monitor	$.00^{b}$	$.11^{b}$	$.47^{a}$	22.455***
3. Skewdriver Pro Kit	$.06^{c}$	$.27^{b}$	$.59^{a}$	23.205***
4. Electronic Pedometer	$.02^{b}$	$.09^{b}$	$.58^{a}$	38.837***

Note. Different superscripts denote significant mean differences

***$p < .001$.

These findings indicate that the positive product evaluation had a significant influence on the buying impulse of the subjects. That is, the subjects whose evaluation of a product was positive are more likely to buy that product on impulse. One-way analyses of variance also were conducted to examine potential differences in two other dimensions of

buying impulse — the response time and strength of buying impulse — at different levels of product evaluation. No significant effect of product evaluation was found on these two dimensions of the buying impulse for any product. Further, a three-way ANOVA was conducted but no significant interactions were found among the scarcity of time, scarcity of quantity, and product evaluation. The main effect of product evaluation was significant on the buying impulse for all four products.

2. Believability of Scarcity Messages

This study measured how believable scarcity messages in TV home shopping program were to the subjects who viewed the experimental shopping programs. Table 4-16 presents the results of the believability of scarcity of quantity and scarcity of time messages.

Table 4-16. Believability of Two Types of Scarcity Messages

(n = 120)

Product	Very Believable	Believable	Somewhat Believable	Not Believable	Don't Know
Scarcity of Time	2%	11%	28%	53%	6%
Scarcity of Quantity	2	13	38	40	8

The findings show that 41% of the subjects believed the messages of scarcity of time, and 52% believed the messages of scarcity of quantity. It was suggested in previous studies of scarcity messages (Yun, 1992) that scarcity messages have no impact on people's perception or behavior if they do not trust these messages. Thus, it is reasonable to examine the impact of the believability of scarcity messages on the buying impulse of the subjects in this study.

An index of believability was created by combining the believability of time and believability of quantity. The score of the index ranged from 2 (neither time nor quantity scarcity messages were believable) to 8 (both types of scarcity messages were very believable). The index was categorized further at two levels: scarcity believers (those with an index score of 8) and scarcity non-believers (those with an index score from 2 to 7). T-tests were conducted to compare the buying impulse means between these two groups of subjects. The results are in Table 4-17.

Table 4-17. Buying Impulse of Scarcity Believers and Non-Believers

(0 = Not intend to buy; 1 = Intend to buy.)

Product	Believers (n=38)	Non-Believers (n=71)	t
1. Rolodex Electronic Planner	.18	.41	2.41*
2. Nutritional Monitor	.23	.21	.18
3. Skewdriver Pro Kit	.24	.15	.99
4. Electronic Pedometer	.33	.11	2.90**

Note. For this believer index, 11 subjects of 120 were missing.
*p < .05; **p < .01.

There was a significant difference in buying impulse between the subjects who believed scarcity messages and those who did not for the Electronic Pedometer. This difference is also significant for the Rolodex Electronic Planner but the direction of the impact was opposite. Three-way analyses of variance were conducted to examine the effects of scarcity of time, scarcity of quantity, and believability of scarcity messages. No significant interactions among the three variables were found for any product. A significant main effect of believability of scarcity messages existed on buying impulse for the same two products, the Rolodex Electronic Planner and Electronic Pedometer. Again, the impact of believability on impulse buying for the Rolodex Electronic Planner is opposite to that for the Electronic Pedometer.

Endnotes

[1] The z-score transformation standardizes variables to the same scale, producing new variables with a mean of 0 and a standard deviation of 1 (SPSS, Inc. 1990). Because the lengths of four product segments were different in this study, it was necessary to standardize the response time and strength variables before they were aggregated. Therefore, z-scores for all four experimental products were calculated and an average of these scores was used in the analysis.

CHAPTER 5: SUMMARY AND DISCUSSION

This chapter summarizes the results presented in the preceding chapter. First, it reviews the findings of a descriptive analysis of impulse buying in TV home shopping settings. Next, this chapter elaborates the results of hypothesis testing. Then, it discusses the findings of an exploratory analysis of the factors that were not specified in the hypotheses but had an impact on impulse buying. Finally, this chapter discusses limitations of the study and suggestions for further research.

Impulse Buying in TV Home Shopping

Previous studies have defined impulse buying as an unplanned purchase for which the decision to buy is made in the store. To be consistent with previous research, this study defines impulse buying in TV home shopping as a purchase that is made by a TV home shopping program viewer who has had no intention to buy the product prior to tuning in to the shopping channel. Different from previous studies, however, this study identifies two new dimensions of impulse buying in TV home shopping settings: the response time and the strength of the buying impulse. Response time refers to how quickly an intention to buy an unplanned product occurs in the viewing process. The strength of the buying impulse refers to how strong the intention to buy is. These three dimensions have been investigated in this study and the findings are summarized in the following sections.

A moderate level of impulse buying was found to exist in this experiment, from 19% for the Nutritional Monitor to 32% for Rolodex Electronic Planner. These findings suggest the levels of the impulse buying in TV home shopping vary among products. These percentages, however, may not be generalizable to normal TV home shoppers because of differences between an experiment and the home viewing settings.

The measures of the response time indicated that the viewers of TV home shopping programs tend to make their purchase decisions considerably before a product segment ends. They do not need to view an entire product segment to decide whether to buy or not to buy. This is probably because the products in this experiment were low involvement products and the information processing in the decisions for these products was relatively simple. Another explanation may be that subjects concentrated on viewing of the products in the experiment so they could process the product information in a more efficient way than viewers in normal home settings.

There is a substantial difference between decisions to buy and decisions not to buy in terms of how quickly these decisions are made in TV home shopping. It takes less time for the viewers to decide not to buy a product than to decide to buy a product. Probably because certain risks are involved in purchase decisions, decisions to buy require more time to evaluate the involved risks. This finding may be generalizable to purchase decisions in normal home settings. The measures of the response time also reveal that the viewers tend to make quicker and quicker decisions as they continue viewing the shopping program. This fact suggests there is a learning process in the experiment. The implication of this finding is that more experienced TV home shoppers may be able to make their decisions (either to buy or not to buy) more quickly than TV home shopping novices.

Most buying impulses are accompanied by a strong or very strong intention to do so. This finding supports Rook's (1987) definition of buying impulse that impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. The strength of buying impulse is indeed an important factor.

Scarcity Messages and Impulse Buying

This study proposed five research hypotheses on the influence of scarcity messages on impulse buying, of which one was not confirmed and four were partially confirmed. Partially confirmed means that the hypotheses were supported with one or two of the four experimental products. This section summarizes the testing results of these hypotheses.

The data did not support the hypothesis that a buying impulse is more likely to occur in a scarcity condition than in a non-scarcity condition. That is, there was no significant difference in the buying impulse of TV home shopping viewers between the scarcity and non-scarcity condition. The study found, however, a consistent pattern across all four products: response time was shorter in the scarcity condition than in the non-scarcity condition although the difference was significant for only one product and an overall impact was relatively weak. This study also showed that the buying impulse was stronger in the scarcity condition than in the non-scarcity condition for three of the four products although the difference was significant for only one product.

It can be concluded from these findings that scarcity messages do not influence the occurrence of a buying impulse itself; however, they do impact the response time and strength of the buying impulse after it has been triggered by other factors (e.g., product evaluation, which is discussed in the following section of this chapter).

It is obvious that the influence of scarcity messages on the response time and strength of the buying impulse was relatively weak in this experiment. This may be attributable to the methods of this study. The subjects in the experiment knew that the shopping program they were watching was not broadcast live and that they could not buy any item from it even though they might want to. The viewers' realization of this fact might have had a subtle impact on their response to scarcity messages.

This study distinguished two types of scarcity messages in TV home shopping programs — scarcity of time and scarcity of quantity. It examined the relative influences of these two types of scarcity messages. The findings indicated that high scarcity of time had a significant impact on the buying impulse whereas high scarcity of quantity had no significant impact. Given the fact that no significant difference in the occurrences of buying impulse was found between the scarcity and non-scarcity condition, it is prudent to take these findings with caution. This study suggests that further studies be conducted before conclusions are made on the impact of the high scarcity of time on impulse buying.

Materialism and Impulse Buying

Three hypotheses were proposed to address the influence of materialism on the buying impulse of TV home shoppers, and one hypothesis to specify an interaction of scarcity messages and materialism on the buying impulse. Among these four hypotheses only one was partially confirmed.

The study partially confirmed the hypotheses that a buying impulse is most likely to occur among highly materialistic viewers, somewhat likely to occur in moderately materialistic viewers, and least likely to occur in least materialistic viewers. That is, a significant difference in buying impulse exists between high materialism and low or moderate materialism but not between moderate and low materialism. Given the fact that a consistent pattern of materialism impact existed for three of the four products, It is concluded that materialism does impact on the buying impulse of TV home shoppers. As for two other dimensions of the buying impulse, the study failed to find significant differences in the response time and the strength of the buying impulse among the viewers of different materialistic levels. This study also did not support the hypothesis that scarcity messages and materialism interact to impact on the buying impulse.

The impact of materialism on buying impulse was not as strong as anticipated. There are two possible explanations. First, because the subjects of this experiment were college students, they might be homogeneous in materialistic values. If that is the case, then it cannot be expected that levels of materialism will have a substantial impact on the buying impulse. A review of Table 3-10 and the related discussion in Chapter 3 shows that the scores of materialism for the sample ranged from 18 to 56, with a mean of 35.85 and standard deviation of 7.22. Theses statistics suggest that the subjects are instead quite heterogeneous in materialism.

Another explanation is that materialism has a relatively weak impact on the acquisition of less expensive items. As discussed in Chapter 2, previous studies have found that highly materialistic people value acquisition and the means to acquire possessions more than those low in materialism. They also value possessions more than other life goals. However, no studies exist to answer the question whether materialism has an impact on the acquisition of everything or an impact on acquisition of only expensive or valuable items. Because materialism had a weak impact on the buying impulse in this study and all experimental products were priced less than $50, it can be speculated that materialism may have less impact on acquisition of less expensive items.

Product Evaluation and Believability of Scarcity Messages

Although the impact of product evaluation was not hypothesized in this study, the subjects' evaluations of the four products were measured in the experiment. An exploratory analysis indicated that product evaluation has a significant impact on the buying impulse. The viewers who evaluated a product positively were more likely to buy that product on impulse. However, no significant impact of product evaluation was found on the other two dimensions of buying impulse for any product. That is, the response time

and strength of the buying impulse were not subject to the influence of the product evaluation. It can be concluded from these findings that a buying impulse for a product can be triggered by a positive evaluation of the product. When a buying impulse occurs, it is subject to the impact of scarcity messages in terms of response time and strength.

The believability of scarcity messages had an impact on the buying impulse for only one product. The difference was also significant for another product but the direction of the impact was opposite. Given the size and pattern of the impact of believability of scarcity messages, this study concludes that the believability of scarcity messages has no substantial impact on the buying impulse.

Theoretical Implications

This study has several theoretical implications. It reveals that scarcity messages tend to generate a sense of urgency which is indicated by a shorter response time in the scarcity condition. This effect has not been investigated in previous studies, probably because a sense of urgency in retail stores may not be so conspicuous as in TV home shopping settings and it also cannot be precisely measured with a paper-and-pencil instrument. In interactive media, a sense of urgency may be an important mediating variable in the consumer's decision making.

Contrary to previous studies (Brock, 1968; Fromkin, 1968; Knishinsky, 1982; Lynn, 1991), scarcity messages in this study did not make people more desirous of the scarce items. In light of the theories of scarcity messages reviewed in Chapter 2, this unexpected result may be attributable to the type of products in the study. According to the need-for-uniqueness theory (Fromkin 1968; Snyder & Fromkin 1980), scarce goods are more attractive to people who want themselves to be special. In this study, however, the experimental products (Rolodex Planner, Nutritional Monitor, Skewdriver Pro Kit, and

Electronic Pedometer) might not be the right type of products to satisfy the people's need for uniqueness. Therefore, although they were made to seem scarce in the experiment, these products were not more attractive to the subjects.

From the commodity theory (Bozzolo & Brock 1992; Brock 1968) perspective, when a commodity is perceived as unavailable, it will be valued to a greater extent and the desire to obtain it will be enhanced. Although this theory does not specify the types of products to which it applies, it seems that the effect of unavailability or scarcity is more likely to occur on daily necessities. For instance, the 1974 sugar crisis ("Sugar," 1974) and the 1979 oil crisis ("Energy: Togetherness," 1979) did generate a nationwide rush for the scarce products. However, the products in the present study were obviously different. They were not people's daily staples. That might be the reason scarcity messages did not generate the subjects' spontaneous intention to buy the products.

In sum, this study raises the question whether the need-for-uniqueness theory and commodity theory are appropriate for all types of products when they are used to explain the effect of scarcity messages. The fact that scarcity messages failed to make a difference in buying impulse suggested that the impact of scarcity messages may be product-specific and the existing theories of scarcity may need to be tested among different types of products such as necessities and luxury goods.

This study also sheds light on the cause of a buying impulse of TV home shoppers. It revealed that the positive evaluation of a product was highly correlated with a buying impulse. It can be assumed that the positive evaluation of a product is a determinant of an impulse buy, instead of vice versa. It can be further assumed that both planned purchases and impulse buying are the same in terms of the existence of a product evaluation in the decision making. As discussed in Chapter 2, a key difference between the two types of

consumer behaviors is whether need recognition exists before the viewer tunes in to a TV home shopping channel. These assumptions could be tested by asking TV home shopping program viewers who have made a purchase to answer two questions: 1) whether they decided to buy the brand or a brand in that product category before tuning in to the shopping channel, and 2) whether they recognize a need for the brand or a brand in that product category before seeing the product. It is very likely that impulse buyers do not recognize a need for the product until they see it in the program.

Limitations

This study had difficulty in quantifying high and low scarcity of quantity messages. Although a 1 to 4 ratio was found in the pretest and used as the basis for deciding the amounts of items in the low and high scarcity conditions, the author was uncertain whether these numbers (500 for high scarcity condition and 2,000 for low scarcity condition) would generate the anticipated sense of scarcity. This uncertainty was largely because both the respondents of the pretest and the subjects of the experiment lacked knowledge about the TV home shopping business in terms of its penetration in the U.S. households and the volume of its yearly sales. Thus, the impact of scarcity messages in this study may not be generalizable to other products.

Another limitation of the study is that the subjects were not evenly distributed in each session for each condition. For each session, the subjects were always assigned to the condition that had fewest subjects by then. Thus, there were eight subjects in two sessions whereas there was only one subject in several sessions. It is unclear whether subjects would have behaved differently among experimental sessions with different number of subjects. It would be ideal if there were an equal number of subjects in each session and an equal number of sessions for each of the five conditions.

Two instruments (one was computerized and the other was paper-and-pencil questionnaire; see Appendices 4 and 5) were used to collect the data for this study. The paper-and-pencil questionnaire adopted two scales from previous studies — a scale of shopping orientations and a scale of impulsiveness. This study did not pretest these two scales. Data analysis of these scales failed to identify the proposed factor structures. Thus, the data from these scales were not used in this study. The questionnaire also asked the subjects whether they noticed the scarcity messages after they had viewed the shopping program. Because the questions could not distinguish the subjects who did not notice scarcity messages from the subjects who could not recall their notice of scarcity messages, data from these questions could not be used reliably. These problems might have been avoided if a pretest of the questions had been conducted.

Future Research

Consumer behavior in interactive media such as TV home shopping is a promising research direction. New theories of consumer behavior will be in demand as the information superhighway reaches more and more households. We need a better understanding of consumer behavior in a completely new environment.

This study has left several important issues in TV home shopping unanswered. A preliminary analysis of the TV home shopping programs indicates that a variety of programming tactics have been used to affect program viewers and to promote the sales. Typical tactics are uses of different prices, celebrities, reference groups and models in the programs. Measures are taken to reduce the viewers' perceived risks in their purchases (unconditional 30-day return policy) and to facilitate the viewers' orders (installment pay plans). It is unclear what impacts these tactics may have on impulse buying in TV home shopping. Further studies can investigate the impacts of these tactics on impulse buying.

For instance, celebrities are frequent presenters in the QVC shopping programs which suggests that using celebrities is an efficient way to generate viewership and promote sales. However, no studies have been found to address why celebrity presenters make TV home shoppers more likely to watch shopping programs and to buy products. From the uses and gratifications perspective, a parasocial relationship may exist between the celebrity and viewers which mediates the viewers' responses to the celebrity-hosted programs. As Horton and Wohl (1956) suggested, a bond of intimacy is developed with media personalities through shared experiences existing only through viewing of the personality or persona over time. Levy (1979) observed that viewers who found parasocial interaction gratifying increase their exposure to television news for more contact with the news personalities. Robin and McHugh (1987) noted that parasocial interaction, as a form of intimacy, might be seen as an antecedent to future media use. In light of this theory, future studies can explore what gratifications the viewer seeks through viewing the celebrity-hosted shopping programs and buying from these programs.

Use of models to demonstrate products is another characteristic of TV home shopping programs. Social learning theory (Bandura 1977) can be used to explain the effect of this promotion strategy. This theory identifies four processes that intervene in modeling: attentional, retentional, production and motivational processes. This theory may be able to explain why TV home shopping program viewers recognize new needs and imagine new uses by watching model-demonstrated products, especially new products.

This study included a set of viewer-related factors such as materialism, product evaluation, and believability of scarcity messages. This study also measured shopping orientations and impulsiveness but they were not used in the analysis. More reliable measures of these constructs need to be developed in future studies to delineate the impact of cognitive factors on impulse purchase.

In addition to programming factors and consumer-related cognitive factors, product-related factors such as prices and types of products also can be research topics. Because the present study used all low-priced items ($50 or less), issues such as low or high involvement and perceived risks were not addressed. Psychological pricing is frequently used in TV home shopping programs whose impact on buying impulse can be studied across different types of products (necessities vs. luxuries or low involvement goods vs. high involvement goods, etc.).

Studies can be conducted to compare the relative impact of these three types of factors on impulse buying and planned purchases in TV home shopping settings. Different purchase patterns may exist in TV home shopping: some viewers may flip though TV channels and be attracted by some merchandise in a shopping channel which results in a impulse buy; whereas other viewers may tune in to a shopping channel with a clear intention to buy some products but actually buy something else at the end. Constructs such as product evaluation, need recognition, and scarcity messages may play different roles in different purchase patterns. Theories need to be developed to explain potential differences which may be useful to understand consumer behavior in other interactive media where a mix of both planned and impulse behavior is more common.

Ideal studies in interactive media can be conducted using "real" data — the information about transactions or usage that are recorded in the systems. An advantage of interactive media is that the systems store automatic feedback information. For instance, the QVC Network has records of purchases for each customer by time in its database. The Prodigy or America Online can record the usage of each program or service in their systems. If such data are available, they can be analyzed with a content analysis of the programs or services that parallel the data in time. Such an approach will no doubt produce more accurate and reliable findings.

Conclusions

The most important finding of this study is that different factors have different impacts on the dimensions of a buying impulse of TV home shoppers. Specifically, a buying impulse can be triggered by the viewer's positive product evaluation and materialistic values, and the response time and strength of the buying impulse can be enforced by scarcity messages. Scarcity messages themselves do not usually trigger a buying impulse.

In a broader sense, a better understanding of impulse buying in TV home shopping settings requires a combination of both cognitive and behavioral approaches. A cognitive approach assumes that humans are autonomous, independent centers of action for whom predominant controlling variables are cognitive factors. A behavioral approach assumes that all behavior is controlled by environmental factors and cognitive factors are merely mediators (Peter & Olson, 1990). What this study demonstrated is that neither approach can individually solve the puzzle of impulse buying in interactive media. We need a skillful combination of both.

APPENDICES

APPENDIX 1: The Script of a Focus Group Discussion on TV Home Shopping

Hairong Li's Note: *To get some common-sense ideas on TV home shopping, a focus group was held in Dr. Bradley S. Greenberg's office on November 11, 1993. Three advertising majors and a graduate student of psychology participated in the discussion. Among them were three females and one male. Regan Kania moderated the 45-minute discussion. An interviewer of the Institute for Public Policy and Social Research at Michigan State University transcribed the entire session. Hairong Li reviewed the script and underlined the sentences he considered more relevant.*

(M = Moderator, P = Participants, H = Hairong Li)

M: The first question on our list is what personal viewing or shopping experiences have you had with the home shopping network or with QVC?

P1: Ummm.

M: Go ahead, you can say it.

P1: Well, I've never bought anything from the home shopping, but I watch, like, well if I am flipping through the channels and there is nothing on, well, I'll, you know, watch it just for a moment or two, especially if they have, like a celebrity on, like sometimes. I'll watch it when they have Joan Rivers on, or has everyone heard of Joan Rivers?

M: Um hmm.

P1: Other than that I kind of like making fun of it.

M: Do you?

P1: Yeah

M: Yea, so you probably would not buy things from it, or you might.

P1: No, I think I wouldn't trust it.

P2: I've bought things from it.

M: Have you?

P2: Yep.

P3: Yea, me too, for example, this necklace and this ring.

M: Uh huh.

P4: And I have a ring.

M: How often do you watch?

P2: At least, I probably sit down, like, not steady, but about three times a week. I watch it for at least ten minutes or so.

P3: Especially if it is really late at night.

P2: At night.

P3: And there is nothing else on.

P2: And you'll sit there picking out Christmas gifts and my mom watches it too. So at home she'll sit there. That's her life. "This is great; this is what wanted."

M: What period of time do you watch for normally?

P2: Like?

M: Like how long would you say you watch?

P?: Probably like...

M: On an average basis.

P2: At the most probably ten minutes.

M: OK, so not for very long?

P2: While I'm waiting for the next program to come on or...

M: OK.

P2: Something decent to come on or...

M: So you flip to it during commercials and go back to it during other programs?

P2: Well, I've said I've watched it too, like if I'm doing dishes or something like that. I just, if there is nothing I want to see on TV. I'll turn it on and see if they've got anything good. I mean I wouldn't for the clothes and stuff, but some of the jewelry and stuff, being that I got something there and my mom has tons of stuff from QVC. We never have any trouble, you know, with it turning our hands green or anything. Seems to do fine for me.

M: Umm, hmm, how about you? how often do you watch and how long?

P3: Well, probably like, Oh, I would say once a week or once every two weeks. If I watch it, I usually watch it for the whole time. Like if they have jewelry on I usually sit and watch the whole section as long as it's not over a half hour. If it gets over a half hour then I get bored.

M: OK.

P3: It takes them awhile to get to the next item. If you sit there and watch the same item over and over and you want to see more. So, I think they sit on one item too long, but I'll sit up to a half hour to watch it.

M: How about you, Shawnti?

P4: I'm really not that familiar with Home Shopping Network.

M: OK.

P4: I don't have cable so I don't, and I don't watch TV very much. I'm just familiar with it through my grandmother, cause she watched it all the time (M: Uh huh) and not myself.

M: OK, we have a sample tape to show just for a couple of minutes, so Hairong, why don't you start that.

H: OK.

M: We're just going to show a couple of minutes of the home shopping channel.

H: I also have a QVC annual report, and a Home Shopping Network annual report if you want to...

(While viewing the tape)

P4: Oh, same thing as? These aren't real obviously.

H: They're not real, I just want, they're not real.

P2: Almost all their products aren't real.

P3: They need to clarify that, too.

P4: Um Hmm.

P3: On there they should. I think it's just like a lot of people think they're getting real stuff and...

(Tape viewing over)

M: We just saw one ad for a ring and one ad for earrings. Diamond looking earrings. OK. Well, what was your, what do you think about that?

P4: I just think it would be so boring to watch. It's not for me. It's not entertaining. It's not something. I would have more fun going out and shopping. I think, I like to shop and I don't ... I don't think there would be anything I am interested in. I understand a lot of people like it.

M: What kind of people do you think would like it?

P4: Mm, the type of people that don't have the time to shop or don't like to shop.

P2: or not as mobile, elderly or...

M: Do you think?

P2: Or even people that dislike crowds, like at Christmas time I do not want to deal with going into a mall, waiting in line for a half an hour, or, you know, those type of people

especially one that can't, or don't drive or you know stuff like that. And they don't have easy access to up and go shopping.

M: Do you agree or disagree with that?

P3: Yea, I agree with it.

P4: I thought so too.

P1: Yea, I still think. I still think of my grandmother because she is the type of person that if you go into a store and tell her you know you really need this. This is a product that you really need. You know, she is kind of has disposable income. She is maybe a little naive so she'll believe that. I think that maybe older people that do have the extra income who are kind of naive and buy into that persuasion.

M: All right, good. How do you think people buy? Do you think they plan the purchases that they make on the Home Shopping Channel or do you think they buy on impulse? For example, how do you define impulse, Hairong?

H: Yea, basically, consumer behavior studies categorize behavior into three types. One is planned action. There are a lot of models and theories. You want to buy a car or you want to buy a computer so you have criteria you want, and you look over a lot of brands then you check the price and features. Then, eventually, you make your purchase decision so that is called planned. You know a specific category and you buy it. Another one is impulse. For example, before you step in the retail store you do not have an idea, you look inside, and you see some cookies and say, "Oh, that's nice, that's a new brand, why don't I taste this." And then you grab them and put them in the shopping cart. So I would call that impulse. You do not have any plan to buy either the product category or the brand. You don't have any idea about that particular brand. Just when you see it, you like it and you buy it.

M: So what type of purchases do you think people make here. Do you think they're planned or impulse?

P4: Definitely impulse.

P1: Impulse.

P2: I think there is a lot more impulse because you never know when you turn that on. I mean you never know, I mean they may tell you they have a segment coming up but you might sit down and say, "OK, I need a ring." So you might sit down and watch it. There might be a little planning to it. For the most part, like you flip the channel and are like "Wow, look at that, I really want that," so you call and...

M: OK.

H: I gave you that program guide. I'm not sure if any of you, any of you, received some before. I called them and they send me some. Sometime when your order something they send you a program guide. So you can see different product...

M: Different product categories are offered at different times of the day.

P2: I know that even if I got this, I probably wouldn't even look at it. I would not even look at it. I would like, well, I should probably stay home between, you know, 4 p.m.,

because at 4 p.m. this is coming on.

H: I did a couple of analyses of program types. They have some programs that are run a couple times a day. This one is for several days in a month period. So, this is jewelry showcase, just one hour program. They run forty-four times during the thirty days. So probably someone, you know, who wants the program guide and if you like jewelry or you like clothes or dolls and then you can set your VCR and tape, but I don't think that is a big proportion of viewers.

P1: When you say that they run the same program over and over, are you saying like the exact same tape? They just put it in there forty-four times or do they show the same merchandise and like present it. Do you know what I am saying?

H: Yea, I know. The program name is the same but the content is different. Most of them are broadcast live. I'm going to go there and take a look at their studios. But I have not made the trip. Their headquarters... I read in an article something like this — they have a producer for every program that sits behind the studio. You know when the phone, let me say this, they have a very huge room for the telephone operators. See this one, how many they have. Over a thousand calls coming in. So, how many orders are placed at the same time the producer can watch the number go up so when he sees the curve go up and then it reaches a purchase peek, and then when it goes down, the producer would say "next." So, it is live. Most of them are live.

M: What do you think are some factors that contribute to the purchases that are the result of impulse on the home Shopping Channel? What would make someone want to make an impulse purchase?

P1: I think just the whole concept of it. it gleans itself really well to impulse cause like they have to phone up, you know, and just push a couple of buttons. I think they really push that. You know "three easy payments." They try to make it sound really well, you know and things like that. Just the whole and just the fact that you can't really plan what's going to be on, as someone already said, it's just kind of what is on, and is what's there...

M: It forces you to buy an impulse image?

P1: Right.

M: What do you think contributes to the impulse purchase?

P3: Some things that I think that would contribute to it, and that they don't do very much of, is they should put up the return policies more. So that people could, if they buy it and they are not satisfied with it, then they can return it. Because a lot of times they don't even talk about that really. But...

M: Is there any thing else that they do on the program now that would cause people to order? Can you think of any other things they do now?

P2: The pricing. The way they put the prices up there. It is here is the original price, and this is our price and then You'll notice a couple of times, sometimes, when they put the product up, they will cut the price like four times. They will be like well we can sell it to you for this. I have sat there and I have seen like four times over numbers and I will sit there and I will be dying. It will be at like twenty five dollars when it started at like a hundred and all of the sudden, you are like "Well, that's got to be like the best deal in town!" So you know it's like any one who will just pick up the phone. Especially, if that's

not something you look for everyday. You know if you are out shopping every day looking for, you know, diamond earrings or whatever then maybe you would know that well they got these at Meijers or whatever for $14.99 or whatever. These are going to be products you don't look for everyday.

M: What other things do you see in the program that might cause people to buy on impulse?

P4: Well, I was also going to say the price. My grandma would keep a list to keep track of all the savings that she would have for each product and she would add it up and she was so happy that she had saved about $2,000 buying these products. I mean she would buy things that she would never use. She bought my dad a tool set and my uncle a power drill and...

M: Hm, so the dollar here was pretty important?

P4: Yea.

M: For the Money.

P2: People think "oh, wow, I am saving." Even though, they may not be overall. You think you did because you don't know.

P1: Also, I think like the type of products they have. I think most of their things aren't really essentials. I think like something you need you see something and go "Oh, I like that" or..

P2: To better yourself. "Well, if I get that it's going to look really good on me."

P1: Yes, I think that kind of ... and also the way they talk. The whole persuasion and the way they talk is trying to, you know like I said the format is trying to. You know, you start out saying, "No, I don't want that," and then there are good things to try and get you to buy it. And try and get you to, get that impulse for you.

M: Um, hmm is there anything else that motivates people to buy on impulse? Can you think of any other factors?

P4: You don't have anything else to do.

M: OK. So maybe if the audience is bored.

P2: When you're sitting there watching it and you see somebody else with it. And that little counter says the number of people who are buying this right now. And they keep track for you and let you know "237 calls have come in and there's only 40 left and now you'd better get on that phone now and call us now." And you think, look at all those people that are buying this product and there are only forty left and that means only about 280 of these products. Nobody else in the neighborhood is going to have one so I am going to get this and I'll be different. You know not like earrings or something like that but some of their other products, like their sweaters or whatever. That's different from anything anyone in the neighborhood is going to have, and that, the numbers are up and your like "Oh, I just have to do it now," you know?

P3: Or when they have like satisfied customers call and say that they like their products or whatever. I think some of the people are hesitant about buying over the phone or

whatever because they don't know what they are going to get.

M: Yea, we watched an example of a caller talking from her home.

P3: Yea.

H: Most of the people, they are happy when they talk, right? I found very few customers that are sad, sad customers that called. If they call they may cut them out.

M: Yea, if they call they would cut them out.

H: I've never heard a complaint over the phone.

M: Is there anything else that you remember noticing that would trigger an impulse buying decision?

P4: I think that good lighting techniques that can make the diamonds sparkle.

P2: Really, sparkle.

M: Any other factors at all that you can remember?

H: For the lighting, they use a different lens, you know, when they show a particular item you see the lens and the reflections and that type of thing. You look at the real thing and you say oh now that is..

M: Are there any other persuasive factors that they used to try and get you to buy or ?

P4: They showed the women with the earrings on and she was an attractive model. You would be able to think I would look that good in those earrings.

M: OK. Any other factors?

P1: Well maybe like in, I mean, I am just thinking like in the example, he is trying to show you just how you can use it and getting it. Usually they try to give you examples of different ways you can use the product or things like that.

M: Mm hmm.

P2: Plus making it seem like a very practical normal gift that someone will use. Where he said his mom gave him that little thing, that clip, that grasshopper thing, or whatever, it is kind of saying "Well, why don't buy those things for somebody. This is much better, more practical and somebody will really like it," and you know, they'll say, "come on, you have got to buy this product."

M: So, the announcer is pretty persuasive.

P2 and P3: Yea.

P2: But he also tried to be kind of, he also tried to be kind of funny sometimes, so he didn't look as pushy like he was trying to be real persuasive (M: OK) but you know.

M: Anything else you can remember? (Pause) OK. Do you remember a little clock down in the corner and what did that represent, do you remember?

P2: Is that like the time that you have left or time that they had been calling the item?

M: Do you think that would influence anybody to purchase, to try and get the call in before the clock expires?

P3 and P4: yea

M: OK. All right.

P1: I always wondered though if you can call like, you know, two seconds afterwards.

M: Yea, I'm not sure. Do you know?

H: I don't know. Do you think that is believable?

P2: I don't know. I never called them afterwards.

H: Is that true?

P3: I heard that when they say they are going down and when they say they only have seven products or whatever, they really have a lot more than that left. And that the reason that they do that is to get you to call. And then after they have so many left over or whatever, they will start it again like three weeks later. They'll start that product thing again.

H: That is a kind of deception, right?

M: Possibly.

P4: See I would use the clock. If it said two minutes and twenty seconds, if I didn't like the product they were showing, then I could flip the channel and I could, you know, flip it back in two minutes.

M: So you would use it to decide when to come back?

P4: Yea.

P3: Well, if a person is sitting there and they are thinking about buying it and there is only a minute left and they are like "Oh, I better hurry up"

M: Do you think that is really another form of pressure to get them to buy it even if they are not sure?

P2: Yea. Cause you're like, "well if I don't get it within the next minute then any chance of my having it is going to be gone." At that point that is the only thing you are thinking of. You are not thinking of, well, it might come back on or I might find it in the stores.

M: So, are there differences within people on who's more prone to buy something on a short time limit like that than who isn't. Like, what type of person is going to buy at impulse? I asked who you thought would watch the home shopping network now, and who do you think would buy at impulse? What type of person?

P2: I think somebody, like more middle income. I mean I just can not picture my dad like

sitting down and buying something like this he would be like yea right. (P4: yea) I mean he is the type that would be like at Lord and Taylor's, you know, and at the expensive jewelers and where price is no matter. You know, they want the best and the higher price they pay the better they feel. Where my mom, she's really low income and when she buys something off there she feels satisfied, like she really got a bargain here, and it was better for her. So I would say like more low to like medium, like the lower part of the medium area. People maybe with, I know it's not real nice to say, but people with a little less intelligence, they aren't out to look around and check things out.

M: OK.

P2: Not necessarily into college or maybe just two years of college or something like that.

M: OK. Who do you think, Shawnti, would buy at impulse more than others?

P4: People who are sad. People that want to feel satisfied to cheer them up or something. I don't know how long it takes to get the product once you order it but some people feel better from just buying something.

M: OK, do you have any input?

P1: Like, I think somebody that is reluctant or hesitating and isn't quite sure and they push them over the edge and say, "Well, I'll just go out and get it or something." This is going to sound really sexist but I kind of think, somebody, a male or maybe somebody with a more male personality style would be like "no, I'm not going to buy it." You know they made their decision. Where maybe somebody more emotional or more of a feminine style who is kind of more hesitated and is kind of more likely to buy on impulse and is hesitating like "OK, I got to have it," you know instead of you know just saying no.

M: Do you agree or disagree with that?

P3: I disagree with that. I think that it would be more someone like "I want it now." They don't hesitate. They see something. They want it and they've got to have it now. They don't think about it. They're just like "Yep I am going to buy it." That's what I mean. If I see something that I really have to have I'll get it.

M: Well, you mentioned low income people might be more likely to buy it. Are they equal as likely to afford what they are buying or do you think they buy beyond their means?

P2: I think they buy beyond, but it's something that, you know, when you walk into a store it's just that there are sales. People and you look at these price tags. You see really, I think that it more hits you there when you see one price or item and it says $42.00 and you just look at it, you go, "oh, my goodness." Then you have to write out this check right there, and you know the whole time your like. "No, I really can't do this." Plus, you constantly have sales people standing there and everyone just kind of nagging at you and you just don't know. So, you just turn around and you are like "I am out of here." While if you're watching television and you make a mistake nobody knows you made a mistake. You can send it back, and they are never going to see your face or anything like that.

It's not necessarily low income people that can never afford this are just calling and trying to get rip them off but people that do maybe once a month or something just for something a little more than they can afford, or to get something for themselves to make them feel better. But they don't feel like dealing with the store. And stuff like that. I mean

I think he's right that somebody that's a little more, there are probably less men that do but I think there are probably men that do.

P1: Yea, I am not saying that there aren't.

P2: I was saying they are the same way there probably are more women. You hear a lot more women voices calling in (H: Yea) and talking to them than you do male voices. But males are just like "I don't want to talk on the air. Just leave me alone." And women like their games with friends and they will talk on the phone for hours. That's their job. You know they hold onto that phone. It's something more acquainted with women.

M: Shawnti, what do you think about people that call in and make the orders? What characteristics do you think they have? I know we talked a little bit about it, but?

P4: I think it is really easy to not even realize that your paying for the product. You're just reading off your credit card, you don't have to think about that money gone, you know out of you pocket where if you are writing a check. It is a lot easier. It's a lot more guilt free.

M: And that's the result of buying through the tilt television or telephone as opposed to buying in person and with cash.

P4: right.

P1: I just thought of another, like, persuasive. Just how, I was thinking how, even though it is through television, I think it is very personal, like the person is talking right at you. There are not a lot of distractions there. If you go shopping in a store there is a lot of distractions. The sales person, while you will not have a conversation with them, you will kind of tell them what you want. And they will help you pick it out or something, but you know that is pretty personal and a lot of time people would like, you know a host or like. People will watch when, you know, when this one sells and the hostess is on, you know. Do you know what I am saying?

M: What are you saying?

P1: Kind of like the personalities. I think the lady said on the phone she like their personalities or something. I think it is very personal.

M: Do you think they would trust more the personality on the TV screen or something in a live shopping environment? What do you think?

P4: I think definitely in a live shopping environment.

M: You would trust that person more?

P1: Yea,. I think of all the times when I was in the store, I didn't want to buy something because I believed the person was conning me. I ended up being dissatisfied. But I would be persuaded to buy with someone there talking to me than on the television.

M: Do you agree?

P2: I think of it because I mean working in a retail store. There are people that come in and its almost like they think you are working on a commission. You know that might even be the first question out of their mouth. Are you working on a commission? Almost,

where on TV they look at this and their TV people have to be honest. Where I could be working on commission and I could lie flat out to you that this is the best product in the world, and it will fall apart in your bag on the way home, for real. They'll think well she's just out to make her buck. They don't know who's making the dollar there. You know a lot of people I think are thrown by that. Because I've had it asked many a times, "Do you work on commission?" and if I do they are walking out of the store.

M: Who do you think is more believable?

P1: See, I think the total opposite of her because I think, you said you think because they are TV people they will be more trustful. I think because they are TV people they will be much much more distrustful. And like I know, or I am sure these people are working on commission just like the whole, you know, TV thing is, like the whole Hollywood thing is to be fake and be like a fake facade thing.

P2: But for older people, I think older people have this sort of well, if it's on television they can't be lying to me.

P1: It gives it credibility.

P2: Because somebody must be put on this station, and if they are lying somebody can be sued real bad. You know so there has got to be some type of credibility. Where if you are standing in a store you also have a judgment to make by sitting there looking at it. You know what I am saying? You are standing there and you are looking at it, and you can hold the shirt. If it falls apart in your hand, obviously, you can hand it back. Whereas if it's over the TV and there is somebody lying to you directly, there is going to be, you know, the National Inquirer or whoever it is that is going to be running after you, and advertising group they are not going run any ads and not have a consequence. If you are sending something you know that is going to break in the mail on the way there.

M: What do you think?

P4: Well I really couldn't trust either one, but just seeing these people when I watched it yesterday for five minutes. This women had on the ugliest jacket and the guy was telling her it is so beautiful on you. You can see them tell people that these look beautiful when it really doesn't in my opinion. I think the difference is just in the stores you get to make the decision you get to try on. And you get to see what the quality of it and so that is how I would base my decision not on what someone else would tell me. You know any sales person would probably tell me it looks good. They are both distrustful.

M: Well how comfortable do you think people are buying over the phone as opposed to live then? You said you can touch the item in the store and you can't try it on telephone ordering from the TV ad. You can't so. I don't know how comfortable do you think people are buying over the phone a product they can't touch?

P1: I think, like, when a person came on or like when it first started, I thought now "I am never going to trust this at all." Like I am never going to send them the check because I'm never even going to get the product. But I think I know I'll get the product and everything and I'll trust the product and everything. The only thing I would not like about is how it is going to look on TV versus in person. I don't think they are going to lie to me. But, if I want to return it for some reason it is going to be so much more of a hassle to do it. So I think it's not that I don't trust them. It's just you know you're never sure at the same time and it's more of a hassle. I would rather go to the store and buy it.

M: What do you think?

P4: I think it depends on the person. People think of shopping as a social kind of thing. you know, they go with their friends. So If you want to go out and do something like that, it all depends if you are homebody or. My perception of the people that shop for clothes are more people who stay home and watch TV all day and really have no kind of life, really, I mean honestly that's how I feel and they are really passive and just kind of let things happen.

M: OK, What do you think? Who is more trustworthy? A live person a TV or what kind of people order over the phone as opposed to live?

P3: What type of people?

M: Yea, Like she said social people like to go out shopping. It's more of a social. Do you agree with that?

P3: I don't know. That's hard. I'm not sure. I think that you see a lot of stuff on TV like the thigh master and all that stuff. It just seems like the biggest rip off. All that stuff that they have that they are trying to get you to buy. Some of it, I just sit there and laugh. So you sit and think, and in your mind you just associate it with those kinds of shows. So you might think that only stupid people would buy through the TV cause obviously there are all these other rip off things on TV. I mean I have really think they are rip off things so some people might associate that with them. Although the things that I have, or my mom, has bought me I have liked and been happy with it.

M: Well how do you think QVC compares to other full-length advertisements for products, the thirty minute advertisement or any other commercial product that's advertisement? How do you think the shopping channel compares?

P2: I think people. I do not watch when somebody says here is a thirty minute advertisement on a channel. I turn it off immediately. I have only watched one and that was with Cher and that cosmetic thing, her hair care thing, because she has that great hair dressing lady or whatever. But even that I won't even watch all the way through, but I think that catches you because it is Cher.

M: Celebrities help this type of commercial?

P2: Right. I just turn those off as soon as they say commercial. I think that kind of turns somebody away. Whereas the Home Shopping or the QVC, you know, what you are getting into when you turn that channel. You know your looking products and you know that is what you want to buy. When you have to sit and listen to somebody describe a product for thirty minutes you just turn it off.

M: What do you think? How does QVC compare to other commercials?

P1: I think QVC has a little bit more legit. People view it a little more legitimately. But I like the informercials. I think they are funnier or something. Like just when you said it, I was thinking about stuff the insanity women or whatever. Like I will watch it just because I think she is funny. Some of the informercials are more like gadgets. Like I am thinking of like they have a pasta machine. Like I think that's kind of neat. Just, you know? Just more like, you know, gadgets.

M: So what it has more entertainment value more commercial for you?

P1: Yea, maybe for me.

M: So that would encourage you to watch the full length commercial over the QVC?

P1: Yea, but I think that I would. That I would watch it for the same way I would watch QVC. You know like I would watch to fill up time while I am waiting for something else you know. You know ten minutes or something like that.

M: So just for short periods of time?

P1: Yea,

M: What about you? How do you compare the two?

P4: I think QVC is probably faster paced. It shows more products in a shorter amount of time. More personable. I don't think I've ever watched an informercial just for me. Maybe about five minutes. But I don't think you can call them when they get on the air. Or maybe some people like to hear their voice on the air or something. I don't know.

P2: That is just like the participation thing I mean I am. Cause a lot of those half an hour informercial or whatever, you call this 1-900 number, call this 1-800 number, just like you do with them. But they make it seem like they are to talk to you. Where these people are like just call and order because it makes your hair look pretty and we've told you about our product for a half an hour.

M: So this is more a two way communication?

P2: They make it seem like there is more you personal stuff involved here because you're buying a product of your dreams. Whereas it's not as though you are watching a Kmart's commercial or just a commercial for any product you know, Ajax or whatever, you know this is something more; this is you purchase.

P: And the callers are there waiting to hear...

M: Right. How do you think the two compare?

P3: I think that the Home Shopping Network is a lot more legitimate than the informercials. But I think that having the informercials on, I mean usually the times I would be watching the Home Shopping Club. I think it kind of drags it on a little bit. People tend to associate one with the other and that drags the legitimacy of the Home Shopping Network down.

M: Do you have a comment?

P1: Yea, I was just going to say that I think their audiences are probably a lot different because just the time of day, like you can watch the Home Shopping Network, you know in the afternoon and stuff like that. You know the older people or just people with families you know, whereas people with families and the informercials are usually made at night, and maybe for older or if you have a family, you know, it's more for people that are up and want to watch TV and there is nothing else on, you know so I kind of think they have a different audience.

M: All right. Do you have any other questions, Hairong?

H: Yea, I have another question. I was thinking of an experiment. What kind of product do you think would appeal to students?

P4: What segment?

M: What type of product would students like to watch?

P4: Jewelry, that's what I always watch.

P2: Even like collegiate products, you know, stuff like you call and can order a sweatshirt and they can say we can out your school on it you know or whatever, they can say we have these different schools or you know.

M: Do they have that at all?

P: Do they do it?

M: Do they have that type of product?

P2: I've never seen it on their channels but I mean I've never. Maybe it is something they can aim at.

M: But I think, we're not asking what QVC should show. We are asking what they should show that they already show. Am I right? Is that your question?

H: Yea.

M: He wants to know what they can show so that it can be an interesting product.

P2: Oh, I see. I don't know. Maybe they do have sweatshirts. I don't know if I've.

P3: They have this one like when I was watching it and they had like I've seen their clothes on before. And I thought they were really ugly but this one time they had like evening outfits on, evening wear, evening dresses. A lot of them was really pretty stuff and it was really inexpensive and even like the next day I had seen some of the outfits like they had seen on TV in Victoria's Secret. I mean I would be interested in clothes that were more contemporary rather than they seem to have a lot of clothes grandmas wear and stuff like that.

P1: I'm thinking of, like I'm, I'm not sure but I think one time, they were selling like a Garth Brooks album. You know some music or something like that I guess.

H: CD?

P1: Yea, something like that. And the reason I am thinking music is because it would appeal to both men and women. Plus it is something people in our age group buy a lot, and it would have to be something kind of middle of the road, like you know, nothing that would offend people but nothing that people would think, this really is really boring type music, you know?

M: How long of a period of time do you think you would want to view if you were the experiment? Before you got to bored?

P4: The time they do know is fine.

M: That's probably about five minutes.

H: Five minutes.

P2: Probably about five minutes because...

M: That's the normal time you watch anyway...

P2: That would be something that students do. That would probably be as long as they would want to watch. I mean it is something that we do between.

H: OK.

P1: Yea, and I think people are pretty familiar with it, with you know you don't have to explain to them what it is, you know?

M: OK.

H: You know another question is, that bothers me, that I have to have a devise or a mechanism to measure the sudden urge to buy. I'm not sure the way how we could measure. For example, if I want to do an experiment in the classroom or in an office, that's different from home environments. When you watch TV at home and you want to buy, you buy. How do we measure this, for example, if we do this in the classroom?

P2: How many people would buy it?

H: For example, if you really want to buy this, how do you express your intention? What can...

M: You know, you are saying like a thermometer measures temperature.

H: Yea.

M: How can he measure how likely you are to buy something.

P1: Blood Pressure (laughter).

M: Pupil Dilation.

H: That part I don't know. If you have any suggestions...

P3: Even if you use those scantron sheets you know and you don't have to say your name or anything like that. Because I know if I was in a group with, you know, fifty other people in a room. I sure wouldn't be the first one shooting up my hand saying "yea, I'd buy that product." A lot of people, the reason they watch that is because they are trying to, not necessarily hide it from somebody else. They might like it, but who knows what everyone else thinks. You know one would ever know and go through like five products or something like that. As far as likelihood and three being right in the middle, I might buy it depending... You know or say either no I wouldn't buy it, or yes I would.

H: So, a measurement. That's a good point I'm thinking about. I would like to ask everyone about products and ask them "would you buy this?"

P1: I think people. I was just thinking that I think people would be pretty honest if you just ask them "would you buy this?" I think most people would just say "yes," but I think just like an experiment, I think it would be pretty hard. Cause you couldn't just have a thousand subjects. And maybe, one would just say they would buy it cause that is kind of the whole concept. They work on that. They reach a million people and maybe only a thousand would buy it. But selling a thousand products...You know what I am saying?

M: Yep, I know what you are saying.

P1: You've thought about it?

M: A little bit (laughter).

P3: You have to differentiate between like I would when saw those earrings. Now I would buy those cause they are simple and they are something I like. But I wouldn't buy it like right now. I probably, I don't know, I would probably.

M: Hope it came out again sometime?

P3: Yea, maybe.

P2: Either that or that's a product you know you can go into the store and get.

P4: Yea that's true.

M: And get a better deal?

P4: It is also easier to say that you would buy that rather than just picking up the phone and really getting that product.

M: Right. So a questionnaire. We don't know would a questionnaire be an accurate response?

P4: Sure I would buy those earrings but I mean I wouldn't.

P2: if there was the phone there? would I call, etc.?

P4: I don't know if I like them enough to call.

P2: I mean you would have to be specific and say, "All right, you have a phone next to you right now, and a credit card." And are you on it, on the phone talking to these people when they are giving them the number or are you just saying "oh yeah, I'd buy it, that's a nice product." It's tough.

M: OK. Look through this then and tell them what you want to know.

H: I would like each of you to evaluate these programming tactics. They are promotion technologies. Promotion would signal impulse or whatever, if we think that's likely to generate or trigger impulse purchases, you write a five next to the item. If you think it is not very important or less likely to generate an impulse, you can just assign a zero there or a one.

M: Do you guys have pens in here or any?

P4: I have one.

P2: Yea.

M: Would you like one?

H: I should mention that a lot of items is like this...

P2: So if we feel that it will?

H: Yea, if you feels you will.

M: Five is very likely and one is not.

P2: To cause impulse buying?

H: Yea, in terms of...

P1: How come there's only a hundred, oh...

P2: So we just use zero and five and that's it or should we use everything in between.

M: Use everything in between.

H: Five is the most likely and...

M: Zero is the least likely...

H: Zero is the least likely to generate an impulse purchase in your opinion.

APPENDIX 2: QVC Programs by Frequency of Run

(July 26-August 22, 1993)

	Program Name	Length	Frequency	Total Hours
1	The Jewelry Showcase	1	44	44
2	Fun & Leisure	1	36	36
3	Superbargains	1	31	31
4	Make Life Easier	1	27	27
5	Around the House	1	26	26
6	Now You're Cooking	1	23	23
7	The QVC Sampler	1	17	17
8	Fashion Coordinates	1	12	12
9	The Gold Hour	1	10	10
10	The Ring Showcase	1	9	9
11	The Fashion Outlet	1	8	8
12	Collectable Dolls	1	7	7
13	Diamonique Jewelry	1	7	7
14	QVC Gift Shop	1	7	7
15	Watch It	1	7	7
16	18K Gold Jewelry	1	6	6
17	Gifts for Kids	1	6	6
18	Health & Fitness	1	6	6
19	The Bracelet Showcase	1	5	5
20	Fashions Under $50	1	5	5
21	Gems Galore	1	5	5
22	Jewelry Under $100	1	5	5
23	The Linen Closet	1	5	5
24	Silver Jewelry	1	5	5
25	Fine Jewelry Collection	1	4	4
26	Jewelry Essentials	1	4	4
27	Western Jewelry	1	4	4
28	Monday Morning Fashions	3	3	9
29	Beauty by Tova	1	3	3
30	The Bed & Breakfast Inn	1	3	3
31	Big Bold Gold	1	3	3
32	Blublocker Sunglasses	1	3	3
33	Center Stage Jewelry	1	3	3
34	Craftsman Tool Hour	1	3	3

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	Program Name	Length	Frequency	Total Hours
35	The Doll Collector	1	3	3
36	The Earrings Showcase	1	3	3
37	Gold Sampler	1	3	3
38	Hi-Tech Toys & Electronics	1	3	3
39	The Home Sampler	1	3	3
40	Ideas for Your Car	1	3	3
41	Kitchen Ideas	1	3	3
42	Picture Perfect	1	3	3
43	Plus Spirit	1	3	3
44	Principle Secret Anniversary	1	3	3
45	QVC Phone Stores	1	3	3
46	Time Savers	1	3	3
47	Fashionfair	3	2	6
48	Joan Rivers Classic Collection	3	2	6
49	Fashion Coordinates	2	2	4
50	Lee Sands Jewelry Anniversary	2	2	4
51	Marie Osmond's Collector Dolls	2	2	4
52	Western Jewelry Showcase	2	2	4
53	A Place for Everything	1	2	2
54	Arts & Crafts with Carol Smith	1	2	2
55	Back to School	1	2	2
56	Baseball Collectibles	1	2	2
57	Cooking with T-Fal	1	2	2
58	Die-Cast Display	1	2	2
59	Fashion Formulas	1	2	2
60	Hour of Quilts	1	2	2
61	In the Kitchen with Bob	1	2	2
62	The Necklace Showcase	1	2	2
63	S. G. Sport by Susan Graver	1	2	2
64	Smart Cooking	1	2	2
65	QVC's Fifth Klondike Gold Rush	24	1	24
66	Black Hills Gold Rush	12	1	12
67	Fashion Night	9	1	9
68	Discover Diamonique	4	1	4
69	The Elegance of 18K Gold	4	1	4
70	Gem Fest	4	1	4
71	The Gold Rush	4	1	4
72	Silver Savings	4	1	4
73	Beverly Hills Gold	3	1	3
74	The Doll House	3	1	3

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(Continued)

	Program Name	Length	Frequency	Total Hours
75	Elvis Tribute	3	1	3
76	Imperial Gold Anniversary	3	1	3
77	Kenneth Jay Lane Collection	3	1	3
78	The Linen Closet	3	1	3
79	Our 1st 3-hour Amethyst Jewelry Special	3	1	3
80	QVC Clearance Sales	3	1	3
81	QVC's Hawaiian Statehood Special	3	1	3
82	Accessor-Ease Anniversary	2	1	2
83	Back to School Special	2	1	2
84	Baseball Collectibles	2	1	2
85	Beatles Memorabilia	2	1	2
86	Big Bold Gold	2	1	2
87	The Birthday Shop	2	1	2
88	Black Hills Gold	2	1	2
89	Comic Book Collections with Peter Stone	2	1	2
90	Comic Book Collections X-men Anniversary	2	1	2
91	The Computer Shop	2	1	2
92	Cooking with T-Fal	2	1	2
93	Craftsman Tools Anniversary	2	1	2
94	Crystal Fantasy 5th Anniversary	2	1	2
95	Damasquinado Jewelry	2	1	2
96	Design Your Own: Charm Earrings	2	1	2
97	Doris Pooser's Must Haves	2	1	2
98	Emerald Jewelry Anniversary	2	1	2
99	Fashion Under $50 Anniversary	2	1	2
100	Fine Jewelry Collection	2	1	2
101	For Race Fan Only	2	1	2
102	Gems of the Sea Anniversary	2	1	2
103	Hi-Tech Toys & Electronics	2	1	2
104	The Jewelry Showcase	2	1	2
105	Joan Rivers Classic Collection	2	1	2
106	Kenneth Jay Lane Collection	2	1	2
107	Linen Outlet 5th Anniversary	2	1	2
108	Maui Divers Jewelry	2	1	2
109	Once in a Lifetime	2	1	2
110	Putting it Together with Linda Dano	2	1	2
111	Russian Collectibles	2	1	2
112	Sapphire Birthstone Collection	2	1	2
113	Sci-Fi Collectibles	2	1	2

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	Program Name	Length	Frequency	Total Hours
114	Silver Jewelry Anniversary	2	1	2
115	Sports Collectible Anniversary	2	1	2
116	The Star Trek Universe: G. Roddenberry	2	1	2
117	Titanium Jewelry	2	1	2
118	Upper Desk Baseball Collections with Reggie	2	1	2
119	Victoria Ashlea Dolls	2	1	2
120	White Gold Jewelry Anniversary	2	1	2
121	Yves Rocher Natural Beauty	2	1	2
122	A. K. F. Design	1	1	1
123	American Tourister Luggage	1	1	1
124	Anri Woodcarvings	1	1	1
125	Arnold Scaasi Collection	1	1	1
126	Basketball Collectibles	1	1	1
127	Beatrix Potter 100th Anniversary	1	1	1
128	Bette Ball Dolls	1	1	1
129	Beverly Hills Silver	1	1	1
130	Capodimonte	1	1	1
131	Collector's Day Preview	1	1	1
132	Citrine Jewelry	1	1	1
133	Collectible Steins	1	1	1
134	The Collector's Outlet	1	1	1
135	Cooking the Italian Way	1	1	1
136	Crystal Fantasy	1	1	1
137	Diamonique Bridal Collection	1	1	1
138	The Eagles Nest	1	1	1
139	Effanbee Dolls	1	1	1
140	Fenton Art Glass	1	1	1
141	Fitz & Floyd	1	1	1
142	Football Hall of Frame	1	1	1
143	Fossil Exhibit	1	1	1
144	Fraser Cottages	1	1	1
145	Good Owners, Great Pets	1	1	1
146	Heart Jewelry Collection	1	1	1
147	Jam Session	1	1	1
148	Kewpie Kollectibles	1	1	1
149	Knickerbocker Bears	1	1	1
150	Larry Laslo at Home	1	1	1
151	Little Souls	1	1	1

(Continued)

(Continued)

	Program Name	Length	Frequency	Total Hours
152	Llardro	1	1	1
153	The Locker Room	1	1	1
154	M. I. Hummel Figurines	1	1	1
155	Marcasite Jewelry	1	1	1
156	Mark Klaus Collectibles	1	1	1
157	Members Only Watches	1	1	1
158	Men's Gifts	1	1	1
159	Mt. St. Helen's Art Glass	1	1	1
160	Napolean Exhibition	1	1	1
161	The Nostalgia Collection	1	1	1
162	Options Jewelry by Helen Z	1	1	1
163	The Pendant Showcase	1	1	1
164	Precious Moments Figurines	1	1	1
165	Ron Lee Collectibles	1	1	1
166	Royal Doulton	1	1	1
167	Shades of Blue	1	1	1
168	Shades of Summer	1	1	1
169	The Shape of Pear-Cut	1	1	1
170	Starry Eyes Sunglasses	1	1	1
171	Victorian Sentiments	1	1	1
172	White Gold Jewelry	1	1	1
173	Worlds of Defiant Comics	1	1	1
174	Your Country Home	1	1	1
175	Yves Rocher Natural Beauty	1	1	1
TOTAL HOURS (24 hours X 7 days X 4 weeks)		300		672

Source: QVC Program Guide, QVC Network, July 26-August 22, 1993.

APPENDIX 3: Viewership of TV Home Shopping Programs

(%)

	Who Watch			Who Bought in Last 3 Months		
	1991	1990	1989	1991	1990	1989
Total U.S. Adults	15.6	13.5	13.5	3.7	3.3	3.9
Men	12.8	11.8	11.7	2.8	2.8	3.6
Women	18.3	15.1	15.2	4.5	3.7	4.3
18-24	18.3	14.8	15.6	4.1	3.1	4.6
25-34	16.8	15.2	15.1	3.3	3.6	4.2
35-44	15.8	13.1	14.1	3.3	3.6	3.5
45-54	15.9	14.4	15.0	4.6	2.9	4.6
55-64	15.1	14.0	11.2	5.0	3.8	3.4
65 and over	11.4	9.2	9.3	2.6	2.5	3.3
Graduated College	13.2	10.6	11.0	3.4	2.6	3.6
Attended College	15.6	12.9	14.6	3.1	3.0	4.0
Graduated High School	17.3	15.5	14.4	4.3	3.7	3.9
Did not Graduate High School	15.0	13.1	13.3	3.4	3.3	4.2
$40,000 or More	14.8	13.2	13.3	3.9	3.6	4.0
$30,000 - $39,999	16.5	14.3	14.0	4.2	3.4	4.1
$20,000 - $29,999	17.1	14.5	13.9	4.0	2.9	4.3
$10,000 - $19,999	15.6	13.0	13.6	2.8	3.1	3.7
Under $10,000	15.7	12.6	12.9	3.2	2.7	3.2

Source: Study of Media and Markets, Simmons Market Research Bureau, 1989, 1990, and 1991.

APPENDIX 4: The Computerized Questionnaire

```
>zrid<   [allow 4] [loc 0/1] [inputloc 1/1]
>id<     [allow 4] [loc 1/1] [inputloc 1/1] [caseid]
>date<   [allow 6] [setdate date]
>time<   [allow 4] [settime time]

>tm1<    [allow 6]
>tm2<    [allow 6]
>tm3<    [allow 6]
>tm4<    [allow 6]
>tm5<    [allow 6]

>if<     [if id le <600>][goto u4][endif]

>u1<     In this short training session, you will go though the
         questions you will answer in the formal experiment.

         To answer a question, you type in a number for the option
         you select and press the "Enter" key.

         Are you ready to start the training session?

         TYPE <1> AND PRESS "ENTER" KEY TO START. [goto u3]
         TYPE <5> AND PRESS "ENTER" KEY TO QUIT THE SESSION.

         =====>

>u2<     Are you sure that you want to quit?

         <1> YES, I WANT TO QUIT. [goto end1]
         <5> No, I WANT TO CONTINUE.

         TYPE A NUMBER AND PRESS THE "ENTER" KEY.

         =====>

>u3<     As mentioned earlier, you will watch a TV shopping
         program in this experiment. When you hear the very
         first word from the program host, type "1" and press
         the "Enter" key to start.

         TYPE <1> AND PRESS THE "ENTER" KEY TO START.   [goto p1]

         =====>

>u4<     Let's start the formal experiment.

         Remember: When you hear the first word from the
         program host, type "1" and press the "Enter" key
         to get your very first question.

         TYPE <1> AND PRESS THE "ENTER" KEY IMMEDIATELY
         WHEN YOU HEAR THE FIRST WORD FROM THE HOST.

         =====>
```

```
>p1<    [start timer]
        Now, you are watching Rolodex 3K Electronic Paper
        Pocket Planner. Relax and enjoy watching.

        As soon as you decide you want to buy this product,
        type "1" and press "Enter" key.

        When you decide you do not want to buy it,
        type "5" and press the "Enter" key.

        <1> YES, I WANT TO BUY IT.        [goto p1a]
        <5> No, I DON'T WANT TO BUY IT.   [goto w1b]

        TYPE A NUMBER AND PRESS THE "ENTER" KEY.

        =====>

>p1a<   [record timer in tm1]
        How strong is your intention to buy?

        <1>  VERY STRONG
        <2>  SOMEWHAT STRONG
        <3>  SOMEWHAT WEAK
        <4>  VERY WEAK

        <8>  DON'T KNOW

        TYPE A NUMBER AND PRESS THE "ENTER" KEY.

        =====>

>w1a<   That's all questions for Rolodex 3K Planner.

        Please continue watching. There is a QVC logo after this
        product. When you see the QVC logo, type "2" and press
        the "Enter" key to start the second session.


        TYPE <2> AND PRESS THE "ENTER" KEY TO START THE SECOND SESSION.


        =====>  [goto p2]

>w1b<   [record timer in tm1]
        That's the only question for Rolodex 3K Planner.

        Please continue watching. There is a QVC logo after this
        product. When you see the QVC logo, type "2" and press
        the "Enter" key to start the second session.

        TYPE <2> AND PRESS THE "ENTER" KEY TO START THE SECOND SESSION.

        =====>
```

>p2< Now, you are watching the second product, NutriSmart Nutritional Dietary Monitor.

As soon as you decide you want to buy this product, type "1" and press "Enter" key.

When you decide you do not want to buy it, type "5" and press the "Enter" key.

<1> YES, I WANT TO BUY IT [goto p2a]
<5> No, I DON'T WANT TO BUY IT. [goto w2b]

TYPE A NUMBER AND PRESS THE "ENTER" KEY

======>

>p2a< [record timer in tm2]
How strong is your intention to buy?

<1> VERY STRONG
<2> SOMEWHAT STRONG
<3> SOMEWHAT WEAK
<4> VERY WEAK

<8> DON'T KNOW

TYPE A NUMBER AND PRESS THE "ENTER" KEY.

=====>

>w2a< That's all questions for NutriSmart Nutritional Dietary Monitor.

Please continue watching. There is a QVC logo after this product. When you see the QVC logo, type "3" and press the "Enter" key to start the next session.

TYPE <3> AND PRESS THE "ENTER" KEY TO START THE THIRD SESSION.

=====> [goto p3]

>w2b< [record timer in tm2]

That's the only question for NutriSmart Nutritional Dietary Monitor.

Please continue watching. There is a QVC logo after this product. When you see the QVC logo, type "3" and press the "Enter" key to start the next session.

TYPE <3> AND PRESS THE ENTER KEY TO START THE THIRD SESSION.

=====>

```
>p3<    Here is the third product, Skewdriver Pro Kit.

        As soon as you decide you want to buy this product,
        type "1" and press the "Enter" key.

        When you decide you do not want to buy it,
        type "5" and press the "Enter" key.

        <1> YES, I WANT TO BUY IT.          [goto p3a]
        <5> No, I DON'T WANT TO BUY IT.     [goto w3b]

        TYPE A NUMBER AND PRESS THE "ENTER" KEY.

        =====>

>p3a<   [record timer in tm3]
        How strong is your intention to buy?

        <1> VERY STRONG
        <2> SOMEWHAT STRONG
        <3> SOMEWHAT WEAK
        <4> VERY WEAK

        <8> DON'T KNOW

        TYPE A NUMBER AND PRESS THE "ENTER" KEY.

        =====>

>w3a<   That's all questions for Skewdriver Pro Kit.

        Please continue watching. There is a QVC logo after this
        product. When you see the QVC logo, type "4" and press
        the "Enter" key to start the last session.

        TYPE <4> AND PRESS THE "ENTER" KEY
        TO START THE FOURTH AND LAST SESSION.

        =====> [goto p4]

>w3b<   [record timer in tm3]
        That's the only question for Skewdriver Pro Kit.

        Please continue watching. There is a QVC logo after this
        product. When you see the QVC logo, type "4" and press
        the "Enter" key to start the last session.

        TYPE <4> AND PRESS THE "ENTER" KEY
        TO START THE FOURTH AND LAST SESSION.

        =====>
```

```
>p4<    Now, you are watching the last product in the show,
        Electronic Pedometer and Fitness Monitor.

        As soon as you decide you want to buy this product,
        type "1" and press "Enter" key.

        When you decide you do not want to buy it,
        type "5" and press the "Enter" key.

        <1> YES, I WANT TO BUY IT.       [goto p4a]
        <5> No, I DON'T WANT TO BUY IT.  [goto end2]

        TYPE A NUMBER AND PRESS THE "ENTER" KEY.

        =======>

>p4a<   [record timer in tm4]
        How strong is your intention to buy?

        <1> VERY STRONG
        <2> SOMEWHAT STRONG
        <3> SOMEWHAT WEAK
        <4> VERY WEAK

        <8> DON'T KNOW

        TYPE A NUMBER AND PRESS THE "ENTER" KEY.

         =====>

>end1<  Thank you!  Please take a break.  When the program is
        over, there is a questionnaire for you to fill out.

        TYPE <9> AND PRESS THE "ENTER" KEY TO END THIS PROGRAM.

        ======>    [goto fn1]

>end2<  [record timer in tm4]
        Thank you!  Please have a break.  When the program is
        over, there is a questionnaire for you to fill out.

        TYPE <9> AND PRESS THE "ENTER" KEY TO END THIS PROGRAM.

        =====>

>fn1<   [stop timer ] [record timer in tm5] [complete]
```

APPENDIX 5: The Paper-and-Pencil Questionnaire

Thank you for your participation in the experiment. We would like you to fill out this questionnaire to complete the study. Please ask should you have any questions.

Section A

1. When you were viewing the first product, Rolodex 3K Electronic Paper Pocket Planner, did you notice a count-down timer on the screen?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember how many minutes the timer started from?

      1. 1 minute
      2. 2 minutes
      3. 3 minutes
      4. 4 minutes
      8. Don't remember

2. When you were viewing Rolodex 3K Electronic Paper Pocket Planner, did you notice a message about how many of that product were available?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember the quantity?

      1. 500 units available
      2. 1,000 units available
      3. 2,000 units available
      4. 3,000 units available
      8. Don't remember

3. When you were viewing the second product, NutriSmart Nutritional Dietary Monitor, did you notice a count-down timer on the screen?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember how many minutes the timer started from?

      1. 1 minute
      2. 2 minutes
      3. 3 minutes
      4. 4 minutes
      8. Don't remember

4. When you were viewing NutriSmart Nutritional Dietary Monitor, did you notice a message about how many of that product were available?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember the quantity?

      1. 500 units available
      2. 1,000 units available
      3. 2,000 units available
      4. 3,000 units available
      8. Don't remember

5. When you were viewing the third product, Skewdriver Pro Kit, did you notice a count-down timer on the screen?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember how many minutes the timer started from?

      1. 1 minute
      2. 2 minutes
      3. 3 minutes
      4. 4 minutes
      8. Don't remember

6. When you were viewing Skewdriver Pro Kit, did you notice a message about how many of that product were available?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember the quantity?

      1. 500 units available
      2. 1,000 units available
      3. 2,000 units available
      4. 3,000 units available
      8. Don't remember

7. When you were viewing the last product, Electronic Pedometer and Fitness Monitor, did you notice a count-down timer on the screen?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember how many minutes the timer started from?

      1. 1 minute
      2. 2 minutes
      3. 3 minutes
      4. 4 minutes
      8. Don't remember

8. When you were viewing Electronic Pedometer and Fitness Monitor, did you notice a message about how many of that product were available?

   1. No (go to next question)
   2. Yes ----------> If yes, do you remember the quantity?

      1. 500 units available
      2. 1,000 units available
      3. 2,000 units available
      4. 3,000 units available
      8. Don't remember

9. TV home shopping programs often show a count-down timer indicating the viewer has a limited amount of time to order some merchandise. Generally, how believable do you think that information is?

   1. Very believable
   2. Believable
   3. Somewhat believable
   4. Not believable at all
   8. Don't know

10. TV home shopping programs often show a limited quantity of some merchandise available for viewers to order. Generally, how believable do you think that information is?

    1. Very believable
    2. Believable
    3. Somewhat believable
    4. Not believable at all
    8. Don't know

Section B

We would like to know how you evaluate the four products in the show. Please make your evaluation by putting an "x" on the line under a number. If you think that the product is very good, put an "x" on the line under 1; if you think that it is very bad, put a "x" on the line under 7. If you think that it is just neutral, put a "x" on the line under 4; put a "x" any where between the neutral point and an extreme if your evaluation is moderate in either direction.

1. How do you evaluate the first product, Rolodex 3K Paper Pocket Planner?

	1	2	3	4	5	6	7	
Good	____	____	____	____	____	____	____	Bad
Useless	____	____	____	____	____	____	____	Useful
Good quality	____	____	____	____	____	____	____	Poor Quality
Costs too much	____	____	____	____	____	____	____	A Bargain
Like	____	____	____	____	____	____	____	Dislike

2. How do you evaluate the second product, Nutritional Dietary Monitor?

	1	2	3	4	5	6	7	
Good	____	____	____	____	____	____	____	Bad
Useless	____	____	____	____	____	____	____	Useful
Good quality	____	____	____	____	____	____	____	Poor Quality
Costs too much	____	____	____	____	____	____	____	A Bargain
Like	____	____	____	____	____	____	____	Dislike

3. How do you evaluate the third product, Skewdriver Pro Kit?

	1	2	3	4	5	6	7	
Good	____	____	____	____	____	____	____	Bad
Useless	____	____	____	____	____	____	____	Useful
Good quality	____	____	____	____	____	____	____	Poor Quality
Costs too much	____	____	____	____	____	____	____	A Bargain
Like	____	____	____	____	____	____	____	Dislike

4. How do you evaluate the last product, Electronic Pedometer?

	1	2	3	4	5	6	7	
Good	____	____	____	____	____	____	____	Bad
Useless	____	____	____	____	____	____	____	Useful
Good quality	____	____	____	____	____	____	____	Poor Quality
Costs too much	____	____	____	____	____	____	____	A Bargain
Like	____	____	____	____	____	____	____	Dislike

Section C

People have different values and attitudes. Please read the following statements and circle a number to indicate how you agree or disagree with each of them.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I admire people who own expensive homes, cars, and clothes.	5	4	3	2	1
2.	I have all the things I really need to enjoy life.	5	4	3	2	1
3.	I usually buy only the things I need.	5	4	3	2	1
4.	I try to keep my life simple, as far as possessions are concerned.	5	4	3	2	1
5.	My life would be better if I owned certain things I don't have.	5	4	3	2	1
6.	Some of the most important achievements in life include acquiring material possessions.	5	4	3	2	1
7.	I don't place much emphasis on the amount of material objects people own as a sign of success.	5	4	3	2	1
8.	I wouldn't be any happier if I owned nicer things.	5	4	3	2	1
9.	The things I own aren't all that important to me.	5	4	3	2	1
10.	I enjoy spending money on things that aren't practical.	5	4	3	2	1
11.	I'd be happier if I could afford to buy more things.	5	4	3	2	1
12.	The things I own say a lot about how well I'm doing in life.	5	4	3	2	1
13.	Buying things gives me a lot of pleasure.	5	4	3	2	1
14.	I like to own things that impress people.	5	4	3	2	1
15.	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	5	4	3	2	1

(continued)

(continued)

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
16.	I don't pay much attention to the material objects other people own.	5	4	3	2	1
17.	I like a lot of luxury in my life.	5	4	3	2	1
18.	I put less emphasis on material things than most people I know.	5	4	3	2	1

Section D

The following are some statements about people's shopping orientations. Please indicate your habits by circling a number for each statement.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I learn about products through catalogs to save time.	5	4	3	2	1
2.	I spend a lot of time browsing through stores.	5	4	3	2	1
3.	I appreciate a catalog which is attractively designed.	5	4	3	2	1
4.	The availability of high quality merchandise is very important to me.	5	4	3	2	1
5.	I make purchases through catalogs to save time.	5	4	3	2	1
6.	I enjoy traveling to stores and shopping centers.	5	4	3	2	1
7.	I enjoy receiving catalogs in the mail.	5	4	3	2	1
8.	The availability of a wide selection of merchandise is very important to me.	5	4	3	2	1
9.	I enjoy making purchases through catalogs.	5	4	3	2	1
10.	I enjoy browsing through catalogs with a friend.	5	4	3	2	1
11.	I enjoy browsing through stores even though I may not make a purchase.	5	4	3	2	1

(continued)

(continued)

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
12.	The availability of retailer brands is very important to me.	5	4	3	2	1
13.	I enjoy learning about products by paging through catalogs.	5	4	3	2	1
14.	The availability of unique merchandise is very important to me.	5	4	3	2	1
15.	I enjoy learning about products by going to stores.	5	4	3	2	1
16.	I enjoy looking at catalogs even though I may not make a purchase.	5	4	3	2	1

Section E

People differ in the ways they act and think in different situations. We would like to know the ways in which you act and think. Please read each statement and circle a number on the right side of the page.

		Never	Sometimes	Often	Always
1.	I plan tasks carefully.	1	2	3	4
2.	I do things without thinking.	1	2	3	4
3.	I make-up my mind quickly.	1	2	3	4
4.	I am happy-go-lucky.	1	2	3	4
5.	I don't "pay attention."	1	2	3	4
6.	I plan trips well ahead of time.	1	2	3	4
7.	I am self-controlled.	1	2	3	4
8.	I concentrate easily.	1	2	3	4
9.	I save regularly.	1	2	3	4
10.	I "squirm" at plays and lectures.	1	2	3	4
11.	I am a careful thinker.	1	2	3	4

(Continued)

(Continued)

		Never	Sometimes	Often	Always
12.	I plan for job security.	1	2	3	4
13.	I say things without thinking.	1	2	3	4
14.	I like to think about complex problems.	1	2	3	4
15.	I change jobs.	1	2	3	4
16.	I act "on impulse."	1	2	3	4
17.	I get easily bored when solving thought problems.	1	2	3	4
18.	I act on the spur of the moment.	1	2	3	4
19.	I am a steady thinker.	1	2	3	4
20.	I change residences.	1	2	3	4
21.	I buy things on impulse.	1	2	3	4
22.	I can only think about one problem at a time.	1	2	3	4
23.	I change hobbies.	1	2	3	4
24.	I spend or charge more than I earn.	1	2	3	4
25.	I often have extraneous thoughts when thinking.	1	2	3	4
26.	I am more interested in the present than the future.	1	2	3	4
27.	I am restless at the theater or lectures.	1	2	3	4
28.	I am future oriented.	1	2	3	4

Section F

The last section includes some questions about your media usage and shopping experiences, as well as a few questions about yourself.

1. On a typical weekday (Monday through Friday) how many hours of TV do you watch?

   1. None
   2. Less than 1 hour
   3. 1-2 hours
   4. 3-4 hours
   5. 5 or more hours
   8. Don't know

2. On a typical weekend day (Saturday or Sunday) how many hours of TV do you watch?

   1. None
   2. Less than 1 hour
   3. 1-2 hours
   4. 3-4 hours
   5. 5 or more hours
   8. Don't know

3. How many magazines do you read regularly?

   1. None
   2. 1 magazine
   3. 2 magazines
   4. 3 magazines
   5. 4 or more magazines
   8. Don't know

4. How many newspapers do you read regularly?

   1. None
   2. 1 newspaper
   3. 2 newspapers
   4. 3 newspapers
   5. 4 or more newspapers
   8. Don't know

5. How many times did you make purchases by mail in the past six months?

   1. None
   2. 1 time
   3. 2 times
   4. 3 times
   5. 4 or more times
   8. Don't know

6. Have you ever ordered anything from TV home shopping programs?

   1. Yes
   2. No
   8. Don't know

7. Have you ever watched any TV home shopping channels before?

   1. Yes
   2. No
   8. Don't know

8. What is your gender?

   1. Male
   2. Female

9. What is your age as of your last birthday?

   _____ years old.

10. How much money do you have to spend each month after you pay for tuition, rent, utilities and food?

    1. Under $99
    2. $100-$199
    3. $200-$299
    4. $300-$399
    5. $400-$499
    6. $500 or more
    8. Don't know

11. Which category best approximates the total yearly income of your parent(s)?

    1. Under $9,999
    2. $10,000-$19,999
    3. $20,000-$29,999
    4. $30,000-$39,999
    5. $40,000-$49,999
    6. $50,000 or more
    8. Don't know

12. What is your major?

    _____

That's all. Thank you so much for your time and cooperation!

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