

## Effects of Supply and Demand on Ratings of Object Value

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Subjects were asked to rate the value and attractiveness of cookies that were either in abundant supply or scarce supply. In the scarce condition, the cookies were either constantly scarce or they began in abundant supply and then decreased. Subjects were told that this decrease in supply was either due to an accident or to a high demand for the cookies. In the abundant condition, the cookies were either constantly abundant or first scarce and then abundant. The increase in supply was either due to an accident or to a lack of demand for the cookies. These conditions were crossed with a manipulation in which subjects thought either a high or low number of additional subjects were still to participate in the study. The results indicated that (a) cookies in scarce supply were rated as more desirable than cookies in abundant supply; (b) cookies were rated as more valuable when their supply changed from abundant to scarce than when they were constantly scarce; and (c) cookies scarce because of high demand were rated higher than cookies that were scarce because of an accident. With regard to abundance, cookies that were constantly abundant were rated higher than cookies that began scarce but later became abundant. The results were interpreted as extending commodity theory, and reactance was hypothesized as an intervening process responsible for some of the results. A second study was performed to rule out the possibility that demand characteristics were responsible for the obtained results.

We are constantly bombarded by advertising aimed at increasing our desire to possess certain objects. In order to enhance the attractiveness of their product, advertisers have used such gimmicks as pairing the object with a well-known figure, linking sex appeal to the object, or simply giving the "straight facts from controlled laboratory studies." Another effective method for selling the product is to suggest that it is scarce or in limited supply. Limited editions of cars, books, boats, stamps, and commemorative coins continually appear on the market, and the limited edition often costs as much as four times more than the everyday product.

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This point suggests that there is something about scarcity that increases the attractiveness or value of the scarce product. Brock (1968), using scarcity as a central focus of his commodity theory, hypothesized that "any commodity will be valued to the extent that it is unavailable" (p. 246). *Commodification* is the term he used to refer to "situational variations which are likely to augment the perceived unavailability of an object."

The body of research that tests commodity theory is small and is mainly concerned with the persuasiveness of communications. Brock predicted that the more "scarce" a communication and the more effort needed to obtain it, the more persuasive the communication would be. Brock felt that communication would be seen as scarce, and hence have value, when there were few recipients and communicators who had access to the communication.

Fromkin, Olson, Dipboye, and Barnaby (1971) found that subjects placed greater value on a commodity (nylon hose) when it

was scarce than when it was abundant. Brehm and his colleagues (e.g., Brehm, 1972) have repeatedly demonstrated that when an individual's freedom to obtain an object is eliminated by making the object unavailable, the object will increase in attractiveness. These results suggest that the perception that an article is becoming unavailable will enhance its attractiveness.

A second aspect of scarcity deals with the number of persons who are seen as wishing to obtain the article. Brock suggested that the more people seen as wishing to obtain an article, the greater the value that would be placed on it. However, Yoder (1967) and Fromkin and Brock (cited in Brock, 1968) failed to find that demand significantly affected the value placed on an object.

Thus, commodity theory stands with some basic hypotheses forming its skeleton but little research to supply the flesh. The present study represents an attempt to supply some of the needed flesh; it looks at the effects of scarcity on object value and tries to specify variables that are likely to augment the effects of scarcity. A number of questions can be raised about the concept of scarcity and the "commodification" of scarcity. When speaking of the availability of an object, we can speak of it in terms of how much of the object exists relative to a zero point where none of the object would exist, or we can compare the quantity of the object that exists now to the quantity that existed in the past. Brock (1968) and others (e.g., Brehm, 1966) have generally talked about the availability of the object using the zero state as the baseline. There is, however, evidence to suggest that relative scarcity is an important factor to take into account when speaking of individual's perceptions of the availability of objects. Gurr (1970) has proposed a theory of relative deprivation to account for discontent and revolution. Gurr suggested that the perception of scarcity is determined not simply by how much of an object exists at present but how much of it exists in relation to what existed in the past. People feel deprived and are prone to revolt when the amount of material they have is less than what they had in the past or less than what they expected to have. One aim of the present

study was to compare the effects of simple scarcity (object being consistently scarce) with these effects of relative scarcity (object beginning abundant but becoming scarce).

A second factor that should be of importance in determining the effects of scarcity is the reason for the diminished supply of the object. Brock (1968) suggested that scarcity due to social demand should enhance the value of the product. However, research has failed to find a consistent effect for the social demand variable. There are two possible reasons for this failure. One is that the reason for scarcity makes no difference and that it is only the perception of scarcity that increases product value. The second possibility is that previous research has dealt mainly with the persuasiveness of communication. Scarcity in communications is not based on the absolute supply of the communication but on the number of persons who have access to it. The supply of a communication is not diminished in the same sense that the supply of an object is depleted. Thus, subjects in previous research may simply have focused on the availability. It is possible that when dealing with actual objects, the reason for scarcity becomes important. The present study used objects (cookies) and compared the effects of scarcity due to social demand with accidental scarcity. Based on Brock's theorizing, it was expected that scarcity due to social demand would have greater value-enhancing effects than scarcity due to accidental circumstances.

A third factor investigated by the present study was the effect of the number of persons desiring to possess the object. Brock suggested that the more persons desiring a commodity, the greater would be the perceived value of that commodity. It was expected that this effect would be found in the present study.

Although the focus of previous theories and research has been on the effects of scarcity per se, the implication from this work is that abundance should serve to reduce the attractiveness of objects. An object that was once scarce and has become suddenly abundant should lose some of its value. Further, an object that has become abundant because no one wanted it (lack of social demand) should

lose a greater proportion of its value than one that has become abundant for some other, nonsocial, reason. The fourth aim of the present study was to investigate the effects of abundance and how the reasons for abundance affect the value and attractiveness of objects.

## EXPERIMENT I

### Method

#### Subjects

The subjects were 146 female students in the introductory psychology class at the University of North Carolina at Chapel Hill. The use of female subjects was based on practical rather than theoretical reasons; there was a greater number of female than male subjects available when the study was conducted. Subjects were randomly assigned to the different experimental conditions. The data of 12 subjects were discarded from the final analysis either because the subjects refused to eat cookies or because they were suspicious.

#### Procedure

When the subject arrived at the experimental room she was met by an experimenter who led her to a table. On the table was a can of Pennsylvania Dutch butter mints, a package of Yorkshire Slim cigars, and a glass jar containing either 2 or 10 chocolate chip cookies. The experimenter explained that the experiment was concerned with identifying variables that affect person's preferences for various consumer articles. The subject was told that she would be asked to sample various items and to rate them on a number of dimensions. She was also informed that there were several consumer preference studies being run on the same products at the university. The experimenter then said that the first article to be rated would be cookies. At this point, unknown to the subject, the experimenter pressed a hidden button that signaled the second experimenter, who had been waiting in an adjoining room.

Upon receiving the signal, the second experimenter entered the room. (The two experimenters changed roles, so each ran half the subjects as the first experimenter and half as the second experimenter.) In the *change* conditions, he carried a jar of cookies similar to that already on the subject's table. He apologized for interrupting and asked the first experimenter if his supply of cookies was sufficient.

In the *scarce-change* conditions, the second experimenter's jar contained 2 cookies and the jar at the subject's table contained 10. In the *demand* cell of this condition, the second experimenter stated that his subjects had eaten more of his cookies than he had expected and he asked the first experimenter if he could get some additional cookies. The first experimenter agreed and suggested they simply ex-

change jars. The jars were switched and the second experimenter left the room. The changing of jars meant that the subject's jar which first had 10 cookies, now contained only 2. (The reason jars were switched rather than simply exchanging cookies was to avoid the experimenter's handling the cookies and causing subjects to worry about the cleanliness of them.) The *accidental* cell of this condition followed the same procedure except that the second experimenter stated that he had accidentally taken the first experimenter's cookies, and then the exchange of jars occurred.

In the *scarce-no change* condition, the second experimenter entered the experimental room as he did in the change conditions, except that he did not have a jar of cookies with him. The jar of cookies in front of the subject contained only 2 cookies. After apologizing for interrupting, the second experimenter explained that he simply wanted to check the first experimenter's supply of cookies. This procedure was followed so that attention would be called to the cookies in both the change and no-change conditions.

The *abundant-change* conditions were run in a fashion similar to the scarce-change conditions. However, the original jar in front of the subject contained 2 cookies and the jar carried by the second experimenter held 10 cookies. In the demand condition, the second experimenter stated that his subjects were not eating as many cookies as he had expected and the exchange of jars occurred. In the accidental condition, the second experimenter stated that he had some of the first experimenter's cookies and he exchanged jars. Thus, in these conditions, when the experimenter left the room, the subject's jar contained 10 cookies.

In the *abundant-no change* condition, the subject's jar contained 10 cookies. The second experimenter entered the room without a jar and explained that he wanted to check the first experimenter's supply of cookies. He then left, and the jar with 10 cookies remained in front of the subject. In all cases, the first experimenter was blind as to what would be the behavior of the second experimenter, and the second experimenter was unaware of the first experimenter's behavior.

After these two manipulations were performed, the first experimenter finished explaining the study and manipulated the participation variable. In the *low-participation* condition he informed the subject that because consumer testing research was so expensive, only a small number of subjects would be run and that he needed only a few subjects to complete the study. In the *high-participation* condition, the experimenter informed the subject that there were still a large number of subjects to be run in the study.

Finally, the experimenter returned to the cookies and asked the subject if she would begin by tasting the cookie. After the subject had complied, she was asked to complete the dependent measure rating the cookies. The subjects were then debriefed and attempts were made to assess suspicion.

### Results

An analysis of the results showed no significant effects resulting from the alternation of the two experimenters in the experimental roles, and accordingly, the results were collapsed across the experimenter variable. The design of the study was not a true factorial because subjects in the scarcity-no change condition began the study seeing 2 cookies, whereas subjects in the remaining two scarcity conditions were first shown 10 cookies. Further, 2 cookies were shown initially to subjects in the abundant-change conditions, whereas 10 were shown to subjects in the abundant-no change condition. Because of the lack of true factors, an overall analysis of variance would not faithfully represent the pattern of results; therefore, planned comparisons were performed on the data.

A straightforward test of the hypothesis that scarcity leads to increased attractiveness involves comparing the results from the scarce-no change condition with those from the abundant-no change condition. In order to test the hypothesis that relative scarcity leads to a greater valued commodity than simple scarcity, the results from the two scarcity-change conditions (demand and accidental) were compared with the scarcity-no change condition. The results from the scarcity-demand condition were compared with those from the scarcity-accidental cell to determine if the reason for scarcity affects commodity value. Also within the scarcity-no change condition, the results from the high- and low-participation condition were evaluated to test the hypothesis that a large number of persons waiting for a commodity enhances its value. Within the abundant conditions, the no-change results were compared to the change results and the demand results were compared to the accidental results to determine the effects of relative abundance and determine if the reason for abundance affects the commodity's value. The means for the liking, attraction, and cost data are presented in Table 1.

#### Liking

Subjects were asked to answer on a 9-point scale (1 = very much, 9 = not at all) the

TABLE 1  
MEANS FOR LIKING, ATTRACTION, AND COST  
DATA IN EXPERIMENT 1

Participation level and question	Reason for change in supply		
	Demand	Accident	No change
Scarcity			
High participation	(11)	(12)	(11)
Liking <sup>a</sup>	2.25	3.27	4.08
Attraction <sup>b</sup>	2.33	3.00	4.00
Cost <sup>c</sup>	71.5	60.9	45.8
Low participation	(11)	(12)	(10)
Liking	3.00	3.75	4.40
Attraction	3.18	3.75	4.40
Cost	60.3	52.4	56.2
Abundance			
High participation	(12)	(10)	(12)
Liking	7.17	6.30	5.64
Attraction	6.58	6.40	5.64
Cost	37.5	45.9	46.2
Low participation	(11)	(11)	(11)
Liking	6.82	6.64	5.46
Attraction	6.64	6.27	5.73
Cost	37.5	46.4	45.8

Note. Numbers in parentheses are *ns* for each condition.

<sup>a</sup> "If given the opportunity, would you like to eat more of this consumer item?" (9-point scale; 1 = very much, 9 = not at all).

<sup>b</sup> "How attractive is this consumer item?" (9-point scale,

1 = extremely attractive, 9 = extremely unattractive).

<sup>c</sup> "How much do you think this consumer item should cost per pound?" (answers in cents).

question, "If given the opportunity, would you like to eat more of this consumer item?" Commodity theory received support, as the cookies were liked significantly more in the scarce-no change condition than in the abundant-no change condition,  $F(1, 122) = 13.45$ ,  $p < .001$ . However, relative scarcity led to even greater liking for the cookies, as subjects in the scarcity-demand and scarcity-accidental conditions expressed greater desire for the cookies than did subjects in the scarcity-no change condition,  $F(1, 122) = 14.19$ ,  $p < .001$ . Further, cookies scarce because of demand were more desirable than cookies whose supply was accidentally diminished,  $F(1, 122) = 6.39$ ,  $p < .05$ . The participation hypothesis of commodity theory did not receive support: There was no significant difference within the scarcity-no change condition between the high- and low-participation conditions ( $F < 1$ ).

In the abundant condition, the cookie was liked more in the no-change condition than in

the two change conditions,  $F(1, 122) = 15.22, p < .001$ . There was, however, no significant difference between the abundant-demand and abundant-accidental conditions ( $F = 2.16$ ).

#### *Attraction*

Subjects were asked to answer, "How attractive is the consumer item?" (1 = extremely attractive, 9 = extremely unattractive). As can be seen from Table 1, the results obtained on this question were similar to those obtained on the liking question. Commodity theory was again supported by the finding that the cookies were seen as more attractive in the scarcity-no change condition than in the abundant-no change condition,  $F(1, 122) = 17.84, p < .001$ . The scarcity-change conditions produced a more attractive cookie than the scarcity-no change condition,  $F(1, 122) = 18.08, p < .001$ . The cookie was seen as significantly more attractive in the scarcity-demand condition than in the scarcity-accidental condition,  $F(1, 122) = 4.26, p < .05$ . Again the participation variable had no effect within the scarcity-no change condition ( $F < 1$ ).

The results were also similar within the abundance conditions, as the cookies were seen as significantly more attractive in the no-change condition than in the change conditions,  $F(1, 122) = 9.19, p < .01$ . There was no significant difference between the demand and accidental conditions ( $F < 1$ ).

#### *Cost*

Subjects were asked to indicate "How much do you think this consumer item should cost per pound?" Commodity theory's prediction of a significant difference between the scarcity-no change and abundant-no change conditions was not supported ( $F = 2.22, ns$ ), though the means were in the predicted direction. The cookies were, however, rated as costing significantly more in the scarcity-change conditions than in the abundant-change conditions,  $F(1, 122) = 68.90, p < .001$ . Relative scarcity led subjects to view the cookie as more expensive than did constant scarcity,  $F(1, 122) = 12.48, p < .001$ . As on the previous measures, the cookie was rated more costly in the scarcity-demand

condition than in the scarcity-accidental cell,  $F(1, 122) = 68.90, p < .01$ . Finally, not only was the cookie not seen as more expensive in the high- than in the low-participation situation, but there was actually a significant reversal of this hypothesis, with greatest expense occurring in the low-participation condition,  $F(1, 122) = 4.60, p < .05$ .

There were no significant differences in the abundant conditions; relative abundance did not lead to higher ratings than constant abundance ( $F < 1$ ), nor was there a significant difference between the demand and accidental conditions ( $F = 2.23, ns$ ).

#### *Taste*

Subjects were asked to rate how good the cookies tasted. There were no significant effects whatever for taste.

#### *Discussion*

The results of the present study were generally consistent with Brock's commodity theory (Brock, 1968). Subjects placed more value and attractiveness on cookies when they were scarce than when they were abundant. Whereas previous studies on commodity theory have been mainly concerned with the persuasiveness of "scarce" communications and have not upheld its predictions, the present study indicated that commodity theory is correct when dealing with ratings of cost, liking, and attractiveness of objects.

The present study identifies some of the variables that are important in determining when scarcity will have its greatest value-enhancing effects. The results indicated that a change from abundance to scarcity enhanced the value of the product more than did a constant state of scarcity. That is, scarcity by itself enhances value, but a change to scarcity has a greater effect. A possible explanation for this effect is that the loss of the cookies in the scarce-change (demand and accidental) conditions created the perception of greater scarcity than in the scarcity-no change conditions (see Helson's [1964] theory of adaptation levels). The subjects in the two former conditions would be judging the scarcity of the cookies against 10 cookies, whereas the subjects in the no-change condition would be judging scarcity against

the constant 2 cookies. It is possible that this difference in initial number created differences in the perception of how scarce the cookies were. These results suggest that one way to increase the value of a product is to first make it abundant and then quickly diminish the supply.

The results also indicated that the reason why the supply of a product is decreased is an important factor in determining the value of the remaining product. Although the value of the product increased in both change conditions, this effect was greater in the scarcity-demand condition than in the scarcity-accidental condition. This effect may have resulted from a "bandwagon" reasoning in the scarcity-demand condition: "If everyone is trying it, it must be good." Thus, the most effective manner in which one can increase the value of one's product is to reduce the supply of it and indicate that this reduced supply is due to popular demand for the product.

The results supported the contention that high social demand for a product will enhance its value, but the failure to find effects for the participation variable is somewhat curious. It was expected that if high demand did increase value, subjects would rate the product higher in the high-participation than in the low-participation conditions. It is possible that subjects may not have connected high participation with high social demand. The link between participation and demand was not explicitly made, and subjects may have overlooked this. A second explanation may be that the type of demand for the cookie involved in the participation variable was one that would come after the subject had served in the experiment. The implication was that a large number of subjects might wish to taste cookies *after* the subject had participated in the study. The demand suggested in the demand-change variable was a demand that existed *prior* to the subject's participation. It is possible that information about prior social demand is either more salient or more important than is information about possible future social demand.

The reason why scarcity has such a value-enhancing effect is worth questioning. It is easy to see why people would value a scarce

item if they felt they would have great need for it. However, the present study used an item for which subjects had no great need. Commodity theory (Brock, 1968) does not speculate about exactly how scarcity enhances value. One possible mechanism is that scarcity arouses reactance in the individual. The individual sees that as the item becomes less plentiful, his freedom to have that item decreases. Brehm (1966) and Worochel (1974) have found that when a subject's freedom to have a particular item is threatened or eliminated, that item increases in value and attractiveness. This increase in value is the result of subjects being motivated to restore their freedom to have the object. The greater attraction for the cookie in the change than in the no-change conditions may have resulted because subjects in the change conditions felt greater reactance as they were made explicitly aware of the threat to their freedom by the actual removal of some of their choice alternatives (cookies). Subjects in the no-change condition were not so explicitly threatened.

The present study also dealt with the effects of abundance on the value of a product. Whereas a change from abundant to scarce increased the value of a product, the change from scarce to abundant actually had a value-decreasing effect. Interestingly enough, the reason for the increased abundance did not have a significant effect on the value of the product. It is not clear why increased abundance resulted in decreased value. It cannot be that subjects felt the product was undesirable and others did not want it, because no significant difference was found between ratings in the demand and accidental conditions. It may have been that the sudden increase in choice alternatives created a slight repulsion for the items. Or it may have been that the item was actually perceived as being more abundant in the change conditions than in the no-change condition. The judgment baseline in the change conditions was 2, whereas it was 10 cookies in the no-change conditions.

Although the present results supported commodity theory, other research has failed to obtain positive results (cf. Brock, 1968). When such discrepancy exists between stud-

ies in the same area, the obvious question is why. In the present case, two reasons may be suggested. The first is that the majority of earlier studies manipulated access to (not quantity of) communications, whereas the present study varied quantity of an actual object. It is possible that a perceived shortage in quantity of a commodity will yield the scarcity effect, but limited access will not yield such a strong effect because there is no implication that the supply of the commodity is diminishing.

A second possible explanation for discrepancies in the results of the past and present research is that demand characteristics (Orne, 1962) may have operated in the present study. The manipulation of having the second experimenter enter the room and call the subject's attention to the diminishing or increasing supply of the cookies may have "tipped" the subjects as to the hypothesis and created strong pressures on subjects to confirm the predictions. In order to investigate this hypothesis, a second experiment was conducted.

## EXPERIMENT 2

The aim of the second experiment was to investigate whether or not demand characteristics in the experimental situation were responsible for the obtained results. The demand hypothesis would suggest that subjects were aware of the experimental hypothesis and acted to confirm it. This hypothesis makes two assumptions: first, that subjects who were aware of the hypothesis were not detected and their data was included in the data analysis, and second, that subjects who were aware of the hypothesis would act to confirm it.

### *Method*

A greater effort was made in the second experiment to detect aware subjects and to scrutinize their data. In order to do this, four conditions from the original experiment were rerun exactly as they were in the first study. The four conditions were abundant-no change, scarce-no change, abundant-social demand, and scarce-social demand. The two no-change conditions were included because they offer the most straightforward test of commodity theory. The two demand conditions were included because it was felt that the greatest opportunity for demand characteristics would be in these conditions.

After subjects had completed the main questionnaire, they were given a postexperimental debriefing questionnaire fashioned after that employed by Page (1969, 1974). The questionnaire was in the form of a booklet that began by asking broad questions relating to suspicion: "During the experiment did you ever have the idea that its purpose might be something other than what I was telling you? What?" (Question 2). The questions became increasingly more specific, focusing on the experimental manipulations:<sup>1</sup>

Q. 6. Thinking back over the experiment, did it occur to you that the entrance of the other experimenter into the room might have had some purpose? What?

Q. 14. Did it occur to you that what the experimenter who entered the room said was supposed to influence your rating of the cookies? If so, how?

Q. 21. Did it occur to you that the number of cookies in the jar was supposed to affect your rating of the cookies?

Sixty-eight female subjects were randomly assigned to the four experimental conditions. The data from two subjects were deleted because they refused to taste the cookies.

## *Results*

### *Postexperimental Debriefing Questionnaire*

Two raters independently evaluated the postexperimental debriefing questionnaire. They noted those subjects who, at any time on the questionnaire, reported the correct hypothesis for the condition in which they were run. The raters agreed on all but two of the questionnaires. In these two cases a third independent rater was asked to evaluate these two questionnaires. In all, 13 of the 66 subjects were judged as being aware of the experimental hypothesis.

### *Dependent Measure*

The means and results of the appropriate planned comparisons are presented in Tables 2 and 3. As can be seen from the table, the patterning of scores in the not aware conditions was very similar to those obtained in the first study. Though these effects were not always statistically significant, the cookies were seen as being more desired, more attrac-

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<sup>1</sup> A copy of the debriefing questionnaire may be obtained by writing Stephen Worcheil, Department of Psychology, University of Virginia, Charlottesville, Virginia 22901.

TABLE 2  
MEANS FOR LIKING, ATTRACTION, AND COST  
DATA IN EXPERIMENT 2

	Not aware		Aware	
	No change	Change	No change	Change
Scarce	(14)	(12)	(3)	(3)
Liking <sup>a</sup>	3.29	2.42	5.00	5.33
Attraction <sup>b</sup>	3.71	3.00	4.00	4.67
Cost <sup>c</sup>	71.64	82.17	59.66	54.33
Abundant	(15)	(12)	(1)	(6)
Liking	4.13	5.50	5.00	3.83
Attraction	4.20	4.83	4.00	3.50
Cost	61.80	54.33	54.87	64.16

Note. Numbers in parentheses are *ns* for each condition.

<sup>a</sup> "If given the opportunity, would you like to eat more of this consumer item?" (9-point scale; 1 = very much, 9 = not at all).

<sup>b</sup> "How attractive is this consumer item?" (9-point scale; 1 = extremely attractive, 9 = extremely unattractive).

<sup>c</sup> "How much do you think this consumer item should cost per pound?" (answers in cents).

tive, and more costly in the scarce-no change condition than in the abundant-no change condition. The cookies' ratings were enhanced when there was a change to scarcity as opposed to a constant scarcity. Also, the cookies were seen as less appealing in the abundant-change condition than in the abundant-no change condition.

The picture was very different in the aware conditions. Because of the small number of subjects across these conditions, there were no significant results. However, the pattern of results was exactly opposite that found in the first study and that found with subjects in the not aware conditions. The highest ratings occurred in the abundant-change condition, while the least complimentary ratings occurred in the scarce-change condition.

#### GENERAL DISCUSSION

The main point to be made by these results is that the effects obtained in the two

studies were not due to an artifact of experimental demand. In the second study, where great lengths were resorted to in an effort to eliminate suspicious subjects, scarcity and abundance effects were found with subjects who were deemed not aware of the experimental hypothesis. Further, not only were these effects not found with subjects who were aware of the hypothesis, the results of these subjects were actually in the opposite direction. Thus, it seems that subjects who knew the hypothesis were responding uncooperatively (e.g., Berkowitz, 1971) rather than acting to confirm the predictions. These two findings lead to greater confidence for the results obtained in the first study.

They also suggest another possible reason for the discrepancy in results between the present research and previous studies on commodity theory. In the second study, no effects for scarcity were obtained when the aware subjects were not eliminated from analysis. This finding suggests that support for commodity theory may not be obtained unless careful effort is made to detect suspicious subjects and delete their data.

Thus the results obtained in the two studies suggest that simple scarcity may enhance the desirability of a commodity but that an object whose supply is diminished is valued more than an object whose supply has been consistently low. The reason for the scarcity further affects the perception of the object's desirability. With regard to abundance, an object whose supply has been consistently adequate is seen as more desirable than an object whose supply has recently increased. In this case, the reason for the increase in supply has little effect on the ratings of the object.

TABLE 3  
ANALYSIS OF VARIANCE FOR LIKING, ATTRACTION, AND COST DATA IN EXPERIMENT 2

Comparisons for not aware subjects	Liking <i>F</i>	Attraction <i>F</i>	Cost <i>F</i>
Scarce-no change vs. abundant-no change	3.09*	1.13	4.18**
Scarce-change vs. scarce-no change	2.92*	2.00	4.27**
Abundant-change vs. abundant-no change	6.96**	1.60	2.24

Note. None of the comparisons within the aware subjects approached significance. For each comparison *df* ≈ 1.58.

\**p* < .10.

\*\**p* < .05.

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## ERRATUM

In the article, "Too Close for Comfort: Sex Differences in Response to Invasions of Personal Space," by Jeffrey David Fisher and Donn Byrne, which appeared in the July issue of the *Journal of Personality and Social Psychology* (Volume 32, Number 1), the first sentence under the "Design" subheading on page 16 should be changed from "A  $2 \times 3$  (Sex of Subject  $\times$  Sex of Invader  $\times$  Spatial Relationship of Subject and Invader) between-subjects design was employed . . ." to read as follows: "A  $2 \times 2 \times 3$  (Sex of Subject  $\times$  Sex of Invader  $\times$  Spatial Relationship of Subject and Invader) between-subjects design was employed . . ."