A prediction derived from cognitive dissonance theory is that children devalue an attractive but forbidden toy when mild rather than severe threat deters them from playing with it. One study found the opposite effect for lower socioeconomic class children, i.e., a harsh verbal threat produced more devaluation than a mild threat. Since the latter study was judged to contain methodological and theoretical difficulties, the present study was designed to further explore the "forbidden toy" paradigm with lower-income children. Nature (loss of money versus loss of approval) and level (severe versus mild) of threat were varied in a two by two factorial design. It was predicted that lower-income children (a) devalue a forbidden toy more when threatened with loss of money than with loss of approval, (b) derogate the toy more under threat of severe rather than mild money loss, and (c) devalue the toy an equally small amount regardless of threat level in the loss of approval condition. The data supported the hypotheses. Four- and five-year old black children (N = 43) selected from a day-care center located in a lower socioeconomic neighborhood in St. Petersburg, Florida, served as subjects. Findings are discussed in terms of reinforcement history and "sour grapes," suggesting that when a life history which includes repeated denials to requests for attractive objects leads one to believe that when an adult prohibits a toy, it means that the toy will never be available. (Author/JM)
DEVALUATION OF FORBIDDEN TOYS AMONG LOWER SOCIOECONOMIC CHILDREN AS A FUNCTION OF SEVERITY AND SPECIFICITY OF THREAT

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Abstract

A prediction derived from cognitive dissonance theory is that children devalue an attractive but forbidden toy when mild rather than severe threat deters them from playing with it. This hypothesis has been supported by at least eight studies. One study, however, found the opposite effect for lower socioeconomic class children, i.e., a harsh verbal threat produced more devaluation than a mild threat. Since the latter study was judged to contain methodological and theoretical difficulties, the present study was designed to further explore the "forbidden toy" paradigm with lower-income children. Nature (loss of money vs. loss of approval) and level (severe vs. mild) of threat were varied in a 2x2 factorial design. It was predicted that lower-income children (a) devalue a forbidden toy more when threatened with loss of money than with loss of approval, (b) derogate the toy more under threat of severe rather than mild money loss, and (c) devalue the toy an equally small amount regardless of threat level in the loss of approval condition. The data supported the hypotheses. Findings are discussed in terms of reinforcement history and "sour grapes."

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In a ground-breaking experiment, Aronson and Carlsmith (1963) introduced the "forbidden toy" paradigm. Children were asked to rank order their relative preferences for five toys. The second-ranked toy was then forbidden to the children under conditions of either mild or severe threat for transgression. After a five-minute temptation period in which the children successfully refrained from playing with the forbidden toy, a final ranking of the toys revealed decreased liking for the forbidden toy in the mild but not in the severe threat condition. This finding was interpreted within a cognitive dissonance framework. According to dissonance theory, a severe threat provides the child with a very good reason for not playing with the toy while a mild threat does not. Thus, in the mild threat condition the child is troubled by a dilemma: he has no sufficient reason for refraining from playing with an attractive toy. Presumably, then, the child concludes that the toy must not be that attractive after all, and depreciates its value accordingly.

The Aronson and Carlsmith finding has been replicated by a number of studies (Carlsmith, Ebbesen, Lepper, Zanna, Joncas, & Abelson, 1970; Lepper, Zanna, & Abelson, 1970; Ostfeld & Katz, 1969; Turner & Wright, 1955), including those studies which utilized either long- or short-term behavioral avoidance as a dependent measure (Freedman, 1965; Pepitone, McCauley, & Hammond, 1967) and by one study (Lepper, 1973) which suggests that the insufficient justification provided by a mild threat may prompt the child not only to devalue the toy but to reason that he is an honest person as well.

There is evidence, however, that the dissonance prediction may not hold for all children. Ostfeld and Katz (1969), working with both middle- and lower-socioeconomic class children, found, as expected, that middle-class children derogated the toy in the mild but not in the severe threat condition. The lower-income children, however,
responded in a manner exactly opposite to that predicted by dissonance theory, that is, they derogated the forbidden toy more when they received harsh rather than mild threat. Ostfeld and Katz interpreted these findings in terms of a reinforcement familiarity hypothesis. They assumed that the child's verbal report (i.e., devaluation of the forbidden toy) reflected the effectiveness of the threats. It was then reasoned that children respond most effectively to the disciplinary technique to which they are most accustomed to receiving. It was further reasoned that since lower-income families utilize harsher threats than middle-income families, severe threat is more likely than mild threat to generate devaluation of a forbidden behavior among lower socioeconomic class children. Of course, the reverse was assumed for middle-class children.

Two critical observations regarding the methodology of the Ostfeld and Katz study are in order. First, the experimenter did not leave the subjects alone during the temptation period, but rather "busied herself for 3 minutes in another part of the room". Second, the experimenter was not blind to the experimental condition of the subjects. It is therefore possible that the children did not perceive the freedom of choice necessary to arouse dissonance. It is also possible that the experimenter's expectancies could have influenced the final rankings of the toys. Thus, one purpose of the present study was to retest the hypothesis that lower-income children devalue an attractive toy more when severe threat rather than mild threat is used to prevent them from playing with the toy.

An additional aim of the present study was to investigate the viability of the reinforcement familiarity hypothesis. It appears reasonable to assume that, for some children, certain classes of threats have more impact than others. This is not to say that the most effective threats are those with which children are most familiar (a hypothesis which may or may not be true). Using learning theory terminology, one can distinguish between two major means of threatening punishment for transgression: (a) application of a negative stimulus, (b) withdrawal of a positive stimulus. The severe threat used in the Ostfeld and Katz study was interpreted as the former since "in an angry tone of voice" the experimenter declared: "If you play with it (the toy), I will be very, very angry with you and since you are a bad boy, I will have to tell your teacher and punish you." (In the mild threat condition, the
experimenter simply said: "If you . . . I'll be a little angry with you.") It may well be true that a harsh threat of this nature is both effective and familiar to lower-income children. In the present study, however, an attempt was made to select a threat that would be effective, but not necessarily more familiar, to lower-income rather than to middle-class children. The technique chosen was that of threatening the withdrawal of a positive stimulus. The approach has two advantages. First, Pepitone et al. (1967) utilized threats involving the loss of two marbles (mild) or a flashlight (severe) and found that this technique produced the standard effect predicted by dissonance theory. Second, the disciplinary technique involving the loss of something positive (privileges, allowance, etc.) may be even more familiar to middle-class than to lower socioeconomic class children. Yet, if the magnitude of such a threat is positively associated with devaluation of the forbidden toy among lower-income children, hypotheses other than reinforcement familiarity should be explored to account for the results.

Research in the area of behavior modification suggests that concrete reinforcers are more effective than social approval for lower socioeconomic class children (Risley, 1968). Generalizing from this literature, it was assumed that for lower-income children, threats involving the loss of something concrete would be more effective than threats involving the loss of adult approval. Thus, the present study employed threats involving the loss of two classes of positive reinforcers, loss of money and loss of adult approval. Although the impact of each may vary, it is assumed that lower-income children are not more accustomed to receiving these disciplinary techniques than are middle-class children. Based upon the rationale thus reviewed, the following hypotheses were formulated: (a) threats involving loss of money produce more devaluation of a forbidden toy than threats involving loss of adult approval, (b) more devaluation is observed in response to threats involving loss of a larger rather than a smaller amount of money, (c) since loss of adult approval is assumed to be a minimally effective threat, no difference in devaluation results between severe and mild levels of this type of threat.

METHOD

Four- and five-year-old black children (N=43) selected from a daycare center located in a lower socioeconomic neighborhood in St.
Petersburg, Florida, served as Ss. Two male Es escorted Ss in pairs from their classrooms to another section of the center. Each S was then taken to a vacant room by an E. S was seated at a table on which there were five toys. E slowly counted out twenty pennies as a "Christmas gift" for S, then placed them on the side of the table, and then proceeded to demonstrate the use of the five toys. S was then asked to rank the toys by method of elimination (e.g., "Tell me which toy you like best of all; which one would you most like to play with."). After S made the first choice, that toy was removed from the table and S was asked to select the most preferred toy from among those remaining (and so on). All rankings were double-checked by the method of paired comparisons. (Four Ss were eliminated due to inconsistent rankings). At this point, E announced: "I have to leave for a few minutes, but while I'm gone, you can play with any of the toys except the ____________ (second-ranked toy)." E then placed the forbidden toy in a designated position at the back of the table which allowed later determination as to whether or not it had been moved.

Nature (loss of approval vs. loss of money) and level (mild vs. severe) of threat were varied in a 2x2 factorial design. Ss were randomly assigned to individual threat conditions. In the mild threat - loss of approval condition, E announced: "If you play with the ____________ , I'll be upset with you." For the severe threat - loss of approval condition, E said: " . . . if you play with the ____________ , I would be very angry with you. I would take all of my toys and go home and never come back. I would think you were just a big baby" (see Aronson and Carlsmith, 1963). This particular manipulation was chosen because it was judged to represent a loss of E's approval and it had also been used in a previous study. For the loss of money condition, E varied mild and severe threat by declaring: " . . . if you play with the ____________ , I'll be upset with you and I'll take away five (all twenty) of your pennies." All threats were spoken in an equally serious (but not angry) tone of voice. S was then left alone in the room for five minutes, after which another E entered the room, checked whether S had played with the forbidden toy (none did) and recorded S's second ranking of the toys. Thus, Es were blind to the experimental condition of Ss. After the session, Ss were thanked, given the twenty pennies, and escorted back to their classroom.
RESULTS AND DISCUSSION

The major dependent measure of this study is change in relative preference of the forbidden toy. Since the second-ranked toy was the one forbidden, change scores could range from +1 to -3. As can be seen in Table 1, the greatest amount of devaluation occurred, as predicted, in the severe loss of money condition. In fact, the amount of devaluation in this condition insured the expected significant difference between the loss of approval and loss of money conditions ($F = 4.61$, $df = 1/39$, $p < .05$). Individual comparisons by $t$-test revealed that the severe loss of money condition significantly differed ($p < .05$, two-tailed) from all other conditions. None of the other comparisons was significant.

The major finding, then, is that lower socioeconomic class children in this study devalued the forbidden toy significantly more under threat of severe loss of money than in any other condition. Level of threat involving loss of adult approval produced similar amounts of devaluation comparable to that of the mild loss of money condition. Since the technique used to induce threat was not assumed to be more familiar to lower-income than to middle-income children, the findings cast doubt on the reinforcement familiarity interpretation. Also, since no difference in devaluation occurred as a function of level of threat in the loss of approval condition, future researchers should select with care the nature of threat employed when working with lower-income children.

Table 2 shows the percentages of subjects in each condition who increased, decreased or did not change their liking for the forbidden toy. Although missing significance, these data parallel the earlier analysis. It can be seen in Table 2 that 80% of the subjects in the severe loss of money condition devalued the toy while none showed an increase. This finding is especially striking since several previous studies have found that severe threats have the effect of enhancing the value of the forbidden toy (Aronson & Carlsmith, 1963; Pepitone et al., 1967; Turner & Wright, 1965). The increase in the attractiveness of the forbidden toy in previous studies has been interpreted in terms of both a satiation and a cost-value hypothesis. According to the satiation hypothesis, the child adapts to the other toys during the temptation period, the effect of which is to increase the attraction of the forbidden toy.
Table 1
Mean Devaluation of the Forbidden Toy

<table>
<thead>
<tr>
<th>Nature of Threat</th>
<th>Level of Threat</th>
<th>Severe</th>
<th>Mild</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval</td>
<td>-0.50</td>
<td>-0.40</td>
<td></td>
</tr>
<tr>
<td>Money</td>
<td>-1.80</td>
<td>-0.64</td>
<td></td>
</tr>
</tbody>
</table>

Table 2
Change in Attractiveness of the Forbidden Toy

| Nature and Level of Threats | Change in Ranking |  |  |  |  |  |  |  |
|-----------------------------|-------------------|---|---|---|---|---|---|
|                             | Increase | Same | Decrease |  |  |  |  |
| Approval<sup>a</sup>        |          |      |          |  |  |  |  |
| Severe                      | 8%       | 50%  | 42%      | n=12 |  |  |  |
| Mild                        | 10%      | 40%  | 50%      | n=10 |  |  |  |
| Money<sup>b</sup>           |          |      |          |  |  |  |  |
| Severe                      | 0%       | 20%  | 80%      | n=10 |  |  |  |
| Mild                        | 27%      | 36%  | 36%      | n=11 |  |  |  |

<sup>a</sup> $\chi^2 = .22$, ns
<sup>b</sup> $\chi^2 = 4.96$, df = 2, p < .10
(Arsonson & Carlsmith, 1963; Turner & Wright, 1965). The cost-value hypothesis, on the other hand, assumes that the child interprets the value of the toy in terms of the amount of threat employed to prevent him from playing with it, i.e., level of threat correlates positively with perceived attractiveness of the toy (Pepitone et al., 1967). Both hypotheses offer plausible reasons why the forbidden toy should increase under conditions of severe threat for transgression. The fact remains that the opposite effect was found in the present study.

Since the results of the present study do not lend themselves to ready interpretation in terms of reinforcement, familiarity for reasons discussed earlier, it may be useful for future research to explore alternative hypotheses. For example, an apparently reliable finding is that working-class parents are more authoritarian in child-rearing practices than middle-class parents (Kohn, 1963). In other words, middle-class parents are more apt than working-class parents to rely on reason and discussion in disciplinary matters. Therefore, middle-class children may be more likely than lower-income children to search for "reasons" when asked not to engage in a desirable behavior. Children of working-class parents, however, not being accustomed to receiving reasons for forbidden behaviors, may be forced to rely upon a "sour grapes" rationalization when an adult or circumstance denies them access to an attractive behavior. In fact, this may become the dominant means by which lower-class children cope with such events. It is certainly plausible to argue that lower-income children do not have as many attractive toys as their middle-income peers, in spite of the fact that they are aware that such toys exist. Perhaps a life history which includes repeated denials to requests for attractive objects leads one to believe that when an adult prohibits a toy, it means that the toy will never be available. Children may learn to cope with such outcomes by convincing themselves that they "do not like the toy anyway." Indeed, it has been demonstrated that children are likely to derogate an attractive toy when they are informed that they can never play with it (Turner & Wright, 1965).

Some of these conjectures can be tested. For example, in the Ostfeld and Katz study and in the present investigation, the children were not permitted to play with the forbidden toy before
the second ranking period. If the "sour grapes" mechanism is the principal process operating, then simply allowing the children to play with the forbidden toy before the second ranking might attenuate derogation. Similarly, if the child is led to believe that he will be permitted access to the toy at a later date, this, too, should inhibit devaluation.

Another line of investigation might concentrate on the devaluation of forbidden objects which vary in attractiveness. For example, assume for a moment that lower-income children devalue unobtainable or forbidden objects of high attractiveness more than those of moderate attractiveness. If such is the case, then an explanation for the findings of the present study is at hand. Recall that in accordance with the cost-value hypothesis (Pepitone et al., 1967), previous studies have found that severe threat heightened the value of a forbidden toy. The same cost-value process may also operate among lower-income children. But, if the "sour grapes" hypothesis is correct, devaluation rather than enhancement of a forbidden toy should result. Future research must determine the merits of these hypotheses.
References


