

EFFECT OF THE SEVERITY OF THREAT ON THE DEVALUATION OF FORBIDDEN BEHAVIOR¹

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If a person is induced to cease performing a desired action through the threat of punishment, he will experience dissonance. His cognition that he is not performing the action is dissonant with his cognition that the action is desirable. An effective way of reducing dissonance is by derogating the action. The greater the threat of punishment the less the dissonance—since a severe threat is consonant with ceasing to perform the action. Thus, the milder the threat, the greater will be a person's tendency to derogate the action. In a laboratory experiment 22 preschool children stopped playing with a desired toy in the face of either a mild or severe threat of punishment. The mild threat led to more derogation of the toy than the severe threat.

If a ruler, a parent, or a psychologist wishes to elicit or prevent the occurrence of a particular response from a citizen, a child, or a pigeon, his problem is not a difficult one. All he must do is offer a salient reward or threaten to inflict a salient punishment. Clearly, the more attractive the reward or the more severe the punishment, the greater the likelihood that the organism will comply. But such induced compliance is an inefficient method of social control, for one must continue to reward or to punish the response in order to ensure continued compliance. A much more effective technique would entail somehow getting the organism to enjoy (or abhor) the performance of the act.³ Such a technique has been suggested by the theory of cognitive dissonance (Festinger, 1957, 1961; Festinger & Aronson, 1960). According to the theory, dissonance occurs when an individual simultaneously holds two incompatible cognitions. Dissonance is assumed to be an unpleasant drive state; thus, when an individual experiences dissonance he attempts to reduce it by changing one or both of his cognitions, adding new cognitions, etc.

¹ This research was supported by grants from the National Science Foundation (NSF-G-16838 and NSF-G-22316) to Elliot Aronson. The experiment was conducted while Merrill Carlsmith was on the tenure of an NSF fellowship. The authors wish to thank the staff of the Harvard Preschool for their kind cooperation.

² Now at Yale University.

³ See Kelman (1961) for an interesting discussion of this issue.

One situation which often arouses dissonance involves the performance of an unpleasant or effortful task for little or no reason. That is, if a person finds himself doing something which he does not like to do and is insufficiently rewarded, his cognition that he performed an unpleasant task is dissonant with his cognition that he received little or no compensation for it. He can reduce dissonance in this situation by seeking some other justification for having performed the act. Previous research in this area has demonstrated that an effective way of justifying an insufficiently rewarded action is by cognitively magnifying the attractiveness of the goal.⁴ In one experiment, subjects who expended a high degree of effort to attain an unattractive goal convinced themselves that the goal *was* indeed attractive—whereas subjects who expended little effort saw the goal as it was—that is, unattractive (Aronson & Mills, 1959). Theoretically, the opposite effect should occur for punishment. That is, one should be able to induce a strong distaste for a previously desired action by getting an individual to cease performing that action following a mild rather than a severe threat of punishment. Specifically, if a person is induced to cease the performance of a desired act by the threat of punishment, his cognition that the act is

⁴ This is not to imply that this is the one means of reducing dissonance in this kind of situation. Alternative methods of reducing dissonance in similar situations have been investigated by Festinger and Carlsmith (1959), Mills (1958), and Aronson (1961).

desirable is dissonant with his cognition that he is not performing it. A threat of severe punishment, in and of itself, provides ample cognitions consonant with ceasing the action. If a person ceases to perform a desired action in the face of a *mild* threat however, he lacks these consonant cognitions and, therefore, must seek additional justification for not performing the desired act. One method of justification is to convince himself that the desired act is no longer desirable. Thus, if a person is induced to cease performing a desired action by a threat of punishment, the milder the threat the greater will be his tendency to derogate the action.

METHOD

The general procedure involved having young children evaluate several toys, issuing either a mild or a severe threat of punishment for playing with one specific toy, asking the children to re-evaluate the toys at the close of the experiment. Through this technique we could compare the effect of a mild threat with that of a severe threat on the attractiveness of playing with the forbidden toy.

The subjects were 22 children at the Harvard Pre-school, 11 girls and 11 boys, ranging in age from 3.8 to 4.6 years.⁵ The experimental room was a large playroom familiar to all subjects. It contained a one-way observation mirror and a low table on which the experimenter could display five toys. The toys used were a battery-powered tank, a steam shovel, a set of plastic gears, a battery-powered fire engine, and a set of dishes and pans. The toys were all attractive to the children, and an opportunity to play with them was met with enthusiasm. Prior to the beginning of the experiment, the experimenter spent several weeks at the nursery school playing with the children, so that all the children knew him well when the experiment began.

The experimenter led each subject into the experimental room, closed the door, and showed the subject the toys. He demonstrated how each toy worked, and allowed the subject to play with it briefly before moving on to the next one. After the subject was familiar with all the toys, the experimenter suggested a "question game," following which the subject would have a chance to play with the toys. The experimenter placed all the toys on the floor and sat

on the opposite side of the low table from the subject. Putting two of the toys on the table (for example, the steam shovel and the tank) he asked:

Suppose you could either play with the steam shovel [picking it up], or the tank [picking it up]. Which one would you rather play with?

After the subject had responded, the experimenter replaced the two toys on the floor, put two others on the table, and continued until the subject had made choices between all 10 pairs. By this procedure, a ranking was elicited, from the most preferred toy (1) to the least preferred toy (5). With children this young, it was inevitable that there would be some inconsistencies in the paired comparisons. Three subjects gave judgments which were completely inconsistent; they were not run through the remainder of the experiment and their results were discarded. In a few other cases, the reversal of one paired-comparison judgment led to a tie in the ranking of three of the toys. In these cases, the three toys were placed on the table and the experimenter pestered the child until the tie was broken. Such cases were surprisingly rare. The great majority of subjects were able to rank the toys in a consistent manner.

After the subject ranked the toys, the experimenter picked up the second-ranked toy and placed it on the table in the center of the room. He arranged the remaining toys on the floor, and said:

I have to leave now for a few minutes to do an errand. But why don't you stay here and play with these toys while I am gone? I will be right back. You can play with this one [pointing], this one, and this one. But I don't want you to play with the ——— [indicating the second-ranked toy].

At this point the experimental conditions were introduced. In the Mild Threat condition, the experimenter continued:

I don't want you to play with the ———. If you played with it, I would be annoyed. But you can play with all the others while I am gone, and I will be right back.

In the Strong Threat condition, the experimenter continued:

I don't want you to play with the ———. If you played with it, I would be very angry. I would have to take all of my toys and go home and never come back again. You can play with all the others while I am gone, but if you played with the ———, I would think you were just a baby. I will be right back.

The experimenter then left the room, observed the subject for 10 minutes through the one-way mirror, returned, and again allowed the subject to play briefly with all the toys, including the forbidden toy. After the subject had played with all the toys, the experimenter suggested that they play the question game again, after which they would play together with all the toys. The experimenter administered the

⁵ An additional six children were run through part, but not all, of the experiment: two failed to complete the experiment because they moved from town; three were unable to make consistent rankings by the method of paired comparisons, and so were discarded; one did not wish to continue with the experiment. Only data from those children who completed all of the experiment are included in the analysis.

paired-comparison procedure exactly as before, and then played with the subject for a short while.

Each subject was tested in both conditions, with a period averaging 45 days separating the two conditions. The order in which the subjects were run through the two conditions was randomized—one half of the subjects were run in the Mild Threat condition first and one half were run in the Strong Threat condition first. No subject played with the forbidden toy during the 10 minutes he was alone with it. One or two subjects reached out a hand and tentatively touched the toy, but none went so far as to pick it up, much less operate it.

The second-ranked toy was chosen as the crucial (forbidden) toy because this toy was very attractive to the subject, thus creating appreciable dissonance if he did not play with it; and this allowed the subject the opportunity to change his evaluation in either direction.

RESULTS AND DISCUSSION

Our hypothesis was that a mild threat of punishment for playing with a desired toy would lead to a devaluation of that toy while a severe threat would not. The dependent variable in this experiment is the change in the subject's relative ranking of the crucial toy, that is, the difference between its attractiveness before and after the threat was administered. The results are presented in Table 1 which indicates the number of subjects in the two experimental conditions who decreased their liking for the toy, increased their liking for the toy, or did not change their liking for the toy.⁶ In the Mild Threat condition, for 8 of the 12 subjects whose preferences changed at all, the crucial toy underwent a decrease in attractiveness. In the Severe Threat condition, however, none of the 14 subjects who changed their evaluations of the toy showed a decrease. To test the significance of this difference, we computed a difference score for each subject. His second ranking of the crucial toy in the Severe Threat condition was subtracted from his second ranking of the crucial toy in the Mild Threat condition. These difference scores yielded highly significant results ($p < .003$ by randomization test).

Although the difference between the two conditions is striking, a good deal of this dif-

⁶ Since the same subject participated in both experimental conditions, it should be pointed out that there were no systematic effects due to order of testing.

TABLE 1
CHANGE IN ATTRACTIVENESS OF FORBIDDEN TOY

Strength of threat	Rating		
	Increase	Same	Decrease
Mild	4	10	8
Severe	14	8	0

ference is due to the fact that, in the Severe Threat condition, the subjects actually came to increase their liking for the crucial toy. This increase in attractiveness tends to introduce some ambiguity in the interpretation of the results. It must be determined whether this increase *was* a function of the severe threat or of some other aspect of the experimental situation. A parsimonious and highly plausible explanation for this result is that the actual baseline in the experiment was not zero change. That is, there may be something in the specific procedure which caused a constant increase in the attractiveness of the forbidden toy, irrespective of the degree of threat imposed. For example, it might be that by calling attention to that toy, the experimenter had enhanced its value either by mere emphasis or by creating the impression that he, personally, was interested in that toy. Moreover, by playing with the remaining four toys, the subject may have become satiated with them, thus increasing the relative attractiveness of the crucial toy. It should be emphasized that, if either of these processes occurred, their effect would have been identical in both experimental conditions; thus, if such a process took place, the tendency for the subjects to derogate the toy in the Mild Threat condition occurred in spite of a general tendency for the toy to become more attractive.

To determine whether either of these processes did, in fact, occur, it was necessary to run a condition in which no threat was administered but in which the experimenter did something to call the subject's attention to one of the toys, and in which the subject was prevented from playing with that toy. This was accomplished in the following manner. Several weeks after the subjects had completed both experimental conditions, the experimenter randomly selected one half of the

subjects and ran each through an experimental procedure which was identical except for one change: instead of forbidding the subject to play with the second-ranked toy, the experimenter merely picked it up and took it with him when he left the room. It can be seen that this control condition establishes a proper baseline for the experiment. If, in this condition (No Threat), the subjects did not change their rankings of the crucial toy in a systematic direction, then it would be clear that the proper baseline was zero change. This would mean that the positive shift which occurred in the Severe Threat condition was a function of the severe threat. If, on the other hand, the subjects in the No Threat condition systematically increased their liking for the crucial toy, this would indicate that the apparent increase in the Severe Threat condition was not due to the severity of the threat. Rather, it would suggest that the increase was attributable to emphasis, satiation with the other toys, or some similar process which was common to both the Severe Threat and the Mild Threat conditions. The results support the second interpretation. Of the 11 subjects in the No Threat condition, 7 increased their evaluations of the toy, 4 did not change, and none decreased. The results are virtually identical with those in the Severe Threat condition and significantly different from those in the Mild Threat condition. This indicates that in the Mild Threat condition, the trend toward devaluation of the crucial toy occurred in spite of the general tendency to overrate the toy.

The results are consistent with the theory of cognitive dissonance. In the Severe Threat condition, an individual's cognition that he did not play with an attractive toy was consonant with his cognition that he would have been severely punished if he had played with the toy. There was no need for him to provide further justification for his abstinence. However, when he refrained from playing with the toy in the absence of a severe threat, he experienced dissonance. His cognition that he did not play with the toy was dissonant with his cognition that it was attractive. In order to reduce dissonance, he derogated the toy.

We have implied that through the medium of dissonance reduction, a lasting change in

values could be evoked. Thus far we have demonstrated that devaluation does occur where dissonance is aroused and does not occur in the absence of dissonance. But just one mild threat, although arousing dissonance and leading to devaluation, is a tiny fraction of a child's life. Accordingly, it would seem ambitious indeed to expect this event to have produced a lasting distaste for the crucial toy. In order to achieve a more or less permanent devaluation, consistently mild threats over an extended period of time would appear to be essential. Nevertheless, it would be of interest to examine the duration of this effect. Data are available to test for duration differences between the experimental conditions. The reader will recall that the same subjects participated in both experimental conditions. One half of the subjects were run first in the Severe Threat condition, and about 45 days later, were run in the Mild Threat condition; one half of the subjects were run in the reverse sequence. Thus, it is possible to assess the relative duration of effects due to mild and severe threats by comparing the rankings made by the subjects who were first run in the Mild Threat condition with those of the subjects who were first run in the Severe Threat condition. The child's premanipulation ranking of the toys during the second experimental session provides the necessary data. Thus, it is possible to see where the forbidden toy, originally ranked second, was ranked 45 days after the experimental manipulation. A rank lower than second in the dissonance condition (Mild Threat) indicates a long-lasting derogation of the toy. The results are summarized in Table 2.

In the Mild Threat condition, of the six subjects who changed at all, five showed a decrease after 45 days. In the Severe Threat

TABLE 2
CHANGE IN ATTRACTIVENESS OF FORBIDDEN TOY

Strength of threat	Rating		
	Increase	Same	Decrease
Mild	1	5	5
Severe	3	6	2

Note.—Forty-five days later.

condition, two of the five subjects who changed showed a decrease. These results represent a trend in the expected direction, although with an n of only 11, they do not reach an acceptable level of significance.

It is interesting to note that the long-term effect of a mild threat was very similar to the immediate effect. When the threat was severe, however, this did not appear to be the case. In the Severe Threat condition, although 64% of the subjects initially increased their ranking of the forbidden toy, only 27% ranked their toy higher after 45 days, suggesting only an ephemeral effect.

Hopefully, the effect demonstrated in this experiment may be generalizable beyond mere toy preferences; that is, mild rather than severe threats of punishment may be an effective means of inducing the formation of a system of values in children. For example, the results of this experiment suggest that if a parent were to administer a mild threat of punishment for aggressive behavior it might induce children to derogate aggressiveness. Thus, a mild threat might be more effective than a severe threat in the ultimate reduction of aggressive behavior. This speculation is consistent with data from research in child development which indicates a positive correlation between aggressiveness in children and

the severity of parental punishment for aggression (for example, Sears, Maccoby, & Levin, 1957; Sears, Whiting, Nowlis, & Sears, 1953).

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(Received March 28, 1962)