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The Effects of Parenting Modes of Our Middle Class on the Future Behavior of Early Adolescents: A Behavioral Analytical Point of View

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Department of Pediatrics, Division of Pediatric Neurology İstanbul University, Faculty of Medicine, İstanbul - Turkey **Abstract:** Using the statements of 352 14-year-old early adolescents, 183 boys and 154 girls, with no history of conduct disorder, we surveyed the implications of how the behavior modification modes of our middle class will affect the future behavior of the subjects.

Severe reprimand (53%), privilege removal (31%) and intense painful stimuli (12%) were the behavior managing modes used by the mother (53%), father (25%) or tutor (12%).

The punishing effect (a decrease in the future frequency of the target behavior) of the above worsening conditions was only 8%, whereas

the reinforcing effect (an increase in the future frequency of the target behavior) was 53%.

This high reinforcing effect was believed to be due in part to the operant conditioning of emotional predisposition elicited by the worsening condition. The indirect methodology of the study was also considered to play a role in the results.

Key Words: Human behavior, behavior analysis, punishment, reinforcement, emotional predisposition, conditioning

Introduction

From a traditional psychological point of view, adolescence is the development of a formal operational stage of cognition (1-3). Thus, an adolescent is prepared to make a correlation between events and their outcomes.

It is not surprising that the parents of an adolescent, experience anxiety with the risk taking behavior, negativistic approaches, and the emerging sexuality of their child who was a completely quiescent one previously. Appropriate parenting is necessary during this period to bridge the demands of the adolescent during resolution of their identity crisis successfully (4). When this is not the case, the diagnosis of conduct disorder inevitable (5).

Could parental modes of behavior modification affect the adolescent emotionally who seemingly experiences the climax of emotions? From a behaviorist point of view, emotion, to some extent, refers to the smooth muscle and gland responses that occur as a part of the activation syndrome in sexual arousal, in anger and in other conditions commonly referred to as emotional. The transfer of these responses to previously neutral stimuli is possible through respondent conditioning. The conditioned emotional response procedure was first reported by Estes and Skinner in 1941. The respondent, unconditioned and conditioned responses are inferred

rather than directly observed. On the other hand, much of the topic of emotion is concerned with operant relations involving establishing operations. Some aspects of behavior that have been acquired through operant conditioning, like respondent conditioning, can only be inferred rather than directly observed (6).

In this study, we would like to leave the individualistic differences as determinants of behavior to traditional psychology as well as the currently emerging approach of the behavioral analysis of the personality. We would like to limit our discussion to environmental variables; basically, to the controlling effects of the modes of behavior modification of our society, no matter how complete, on the behavior of early adolescents.

Materials and Methods

This prospective study was designed to identify the effects of behavior modification modes on the behavior of early adolescents of the middle class with no conduct disorder. The subjects were in the 8th grade of two schools located in different areas of İstanbul.

The schools were arbitrarily chosen from those in which were installed a pilot curriculum by the Turkish Ministry of National Education. Such schools are located in certain parts of İstanbul where mostly middle-class families reside. Moreover, governmental pilot schools are

not utilized by the very poor, since it is a prerequisite for parents to give financial aid to the school when necessary. Upper-class families prefer special schools over those in the public sector.

Seven questionnaires consisting of 11 to 20 questions (a total of 106 questions) were designed and handed out once a week, for seven consecutive weeks, starting from May 1999. The questions were designed to explore the extent of the gain in the psycho-social, psycho-analytic and cognitive developmental stages of early adolescents.

To achieve the utmost freedom in expression, the questions were mostly open ended. To assess the consistency in the feelings and thoughts of the subjects, similar questions were repeated in reverse order.

The answers to the open-ended questions were first grouped under qualitative characters. The distribution of each character was expressed by relative and percentile frequency.

Families and child counsellors* handed out the questionnaires. All subjects were assured that they would not be held accountable for their answers. They were told to use symbols to conceal their identity and were free to reveal their gender. They also did not have to answer any questions they did not want to. They were only asked, however, to use the same symbol on each questionnaire. At the end of the survey, the seven questionnaires of each subject were united. Handwriting identification was used to differentiate the coincidental use of the same symbol.

Results

The study comprised 352 14-year-old students, 154 (44%) girls and 183 (52%) boys. Fifteen (4%) did not reveal their gender. None of the subjects had been reported to be involved in any antisocial behavior for at least 6 months (conduct disorders, DSM-IV 1994) (7).

Seventy-two percent of the mothers were in their thirties and 25% in their forties, whereas 53% of the fathers were in their forties and 33% were in their thirties. Fifty-eight percent of the mothers were graduates of an elementary school, 29% of a high school and 6% of a college.*** Forty-four percent of the fathers

were graduates of an elementary school, 37% of a high school and 15% of a college. Five percent of the mothers and 2% of the fathers had not received any formal education. Seventy-eight percent of the mothers were housewives, 13% were workers and 10% had their own businesses. Sixty-seven of the fathers were businessmen, 27% were workers, and 2% were unemployed.

Fifty-four percent of the families consisted of four people: two parents and two children. The divorce rate was 14%. Seventy-five percent of the children from broken families were staying with their mothers. Sixty-seven percent of the families were living in houses with three to four rooms. Fifty-six percent of the subjects had their own rooms. Ninety-four percent of the subjects had maternal care for the first three years of their lives.

Nine percent of the subjects reported that they had never been involved in behavior, that had followed an unfavorable consequence (Table 1). It could not be concluded for sure if they had been involved in misbehavior, which had not received an unfavorable consequence. Since our point was to discuss the effects of the modes chosen to manage inappropriate behavior, we took the results of this subject group for granted, assuming that their behavior had never deserved any unfavorable consequence.

Eighty-two percent of the remaining 87% of the subjects who shared their experience on this issue, confessed that the consequence of their misbehavior had been a worsening condition. The condition had been arranged by the mother (59%), father (25%) or tutor (12%) (Table 2). A severe reprimand (Sp+) (53%), removal of a privilege (Sp-) (31%), and intense painful stimulus (Sp+) (12%) were among the worsening conditions (Table 3). The environmental worsening event had taken place in the presence of another organism, at least the arranger. The subjects reported that the timing of the worsening event had been dependent on the misbehavior and the arranger. In other words, the latency of the worsening condition had been dependent on the behavior if it had occurred in the presence of the arranger, or the arranger had found out that the behavior had occurred sometime after its occurrence.

^{***} Although it has changed recently in Turkey, elementary school was the first 5 + 3 years of education starting at age 6 years after kindergarden high school was the following 3 years of education and college was and still is the following academic training of 4-6 years.

Table 1. Encountering a behavior followed by a worsening condition.

	%
Yes	82
Yes but the consequence was tolerable	18
Never involved in behavior that necessitated an undesirable outcome	9
Did not share	4

Table 2. The arranger of the worsening condition.

	%	
The mother	59	
The father	25	
The tutor	12	
Other	4	

Table 3. The worsening conditions.

A severe reprimand 53 Removal of a privilege 31
Removal of a privilege 31
An intense painful stimulus 12
Other 4

The subjects confessed that they had lied (41%), apologised (20%), slandered (8%), cried (7%) and pretended coyness (4%) (Table 4). Five percent had been indifferent during the consequence. Eighty-nine percent of the subjects replied that they had behaved almost the same whenever they had been treated with similar worsening conditions no matter what the misbehavior had been.

The subjects admitted that they felt anger (36%), hatred (28%) inferiority (13%) and undeserving of love (6%) (Table 5). Seven percent were indifferent in their feelings toward the worsening condition.

Eighty-five percent of the subjects were consistent in their answers to equivalent questions that appeared in reverse order at two differing intervals (Table 5). However, 78% of the subjects were consistent in their answers to equivalent questions, that appeared in reverse order on three differing occasions on the questionnaires.

Table 4. The response to the worsening condition.

	%	
Lie	41	
Apology	20	
Slandering	8	
Cry	7	
Pretended coyness	4	
Indifference	5	
Other	4	
Did not share	11	

Table 5. Consistency in replies evaluated as they appeared on differing occasions on questions appearing in reversed order.

	%	
Similar replies on 2 different occasions Similar replies on 3 different occasions	85 78	

Discussion

The results of the subjects' responses revealed that they pretended to be on the side of the offender (lying 41%, apologizing 20%, slandering 8%, crying 7% and pretending coyness 4%). This was believed to be the establishing operational (EO) effect of a worsening condition. The worsening condition, momentarily, increased the occurrence of certain behavior (in the present case, being on the side of the offender) to terminate the condition by increasing the differential reinforcing effectiveness of that behavior. The motivational effect of an EO, as stated by Skinner and others, was to reduce the effects of the worsening condition (6,8-11). Skinner (6) clearly distinguished deprivation from other kinds of environmental variables and related these operations to the traditional concept of drive, as did Keller and Schoenfeld (10). Skinner's (6) treatment of aversive stimulation was also very similar to his treatment of deprivation. Keller and Schoenfeld also classified aversive stimuli as one of the drives (10).

In addition to pretending to be with the offender momentarily with the consequence, they also felt aggression toward the offender (anger 36% and hatred 28%) that had not been reflected in their behavior publicly, though. Being incapable of competing with the offender found its expression in their replies that they felt

inferior (13%) and undeserving love (6%) (Table 7). Seven percent of the subjects, on the other hand, were indifferent in their feelings toward worsening condition. Such responses of the subjects, momentarily evoked in the presence of the offender, and mostly toward the offender, were considered to be equivalent to the emotional predisposition evoked by a worsening condition. Aversive stimuli increase the reinforcing effectiveness of aggressive behavior in the form of biting, striking, etc. to compete with others. The 'angry' man in Skinner's Science and Human Behavior (6) shows an increased probability of striking and insulting, and a lowered probability of aiding, favoring, comforting and making love.

The subjects were historically familiar with what behavior had already been followed by a worsening consequence (Table 8). The subjects also admitted that they had and would repeat that behavior which had been treated with such an undesirable consequence whenever the opportunity arose (Table 8). The historical relation of the worsening condition seemingly had been controlling their future behavior, since they were challenged to repeat the behavior that had been followed by the same consequence. They were challenged to repeat the same behavior, which at the same time they confessed that that behavior was followed by regret on their part. This relation can be stated in terms of an operant functionaltering effect of the worsening condition and subject's behavior, in that a relatively permanent alteration in function has seemingly been set up that was maintaining the behavior if not increasing its future frequency. Therefore, it was almost impossible to discuss the punishing effectiveness of the modes chosen in this study had been reinforcing the misbehavior.

From a behavioral analytical point of view, an aversive stimulus, in this case the worsening condition intended to manage the inappropriate behavior, can be analyzed by (a) its EO effect in momentarily evoking the behavior, which terminates the behavior by increasing the reinforcing effectiveness of that behavior. It can also be analyzed by (b) its emotion eliciting effect, such as aggression, etc. Its (c) operant function-altering effect as a punishment can also been considered for its capability of decreasing the future frequency of the behavior that preceded it in only 85% of the subjects (Table 8). Its (d) reinforcing effect, however, had been overlooked in our society, where it appeared in at least 53% of the subjects

Table 6. The feelings toward the worsening condition.

	%	
Anger	36	
Hatred	28	
Inferiority	13	
Undeserving of love	6	
Indifference	7	
Did not share	9	

Table 7. The response as the opportunity had arisen to repeat the behavior that had been followed by a worsening condition.

36 21				
21				
10				
9				
9				
8				
7				
	9	9	9	9

Table 8. The differential probability of the recurrence of the behavior in the future.

53	
20	
25	
6	
8	
6	
	8

with an additional probable effect of 25% (Table 8).

Reinforcement establishing EO effect is not a convenient behavioral interpretation of 'want' because it refers to an event that is in the future with respect to the time the 'want' is observed. However, the subjects 'wanted' to take their revenge (Table 7). The subjects described their feelings by expressing how anxious, distressed or happy they felt as the occasion arose for the recurrence of the target behavior. It was believed that the sympathetic arousal at the time of the worsening condition was conditioned to occasional environmental events and could be elicited in the future as the occasion arose.

A worsening condition may function as an unconditioned/conditioned establishing operation in causing signs of damage or discomfort on the part of the other organism to function as reinforcement and evoking any behavior that has been reinforced by such signs in the past (9,12-15). In this case, however, the damage or discomfort could not be expressed easily by the subjects. In fact, the damage continued to affect the future behavior of the subject.

In conclusion, our study revealed that the misbehavior of our middle-class adolescents was being treated with worsening conditions, namely reprimand, privilege removals and painful stimuli. The effect of such behavior modification resulted in reinforcing the behavior (increasing its future frequency) rather than punishing it (decreasing its future frequency).

From a behavioral analytical point of view, our study had implications in that the controlling effects of emotional pre-dispositions on the future occurrence of the behavior need to be delineated more clearly. The reinforcing effect of a worsening condition should be underlined. A possible discriminative effect has been

correlated with the availability of some form of reinforcement other than pain reduction, but the UC effects of emotional operations should also be considered.

The high rate of the controlling effect of a worsening condition in our study may, in part, be attributed to the fact that it is the reflection of the subjects' expressions rather than being designed to eliminate other reinforcing variables of behavior.

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