Behavioral characteristics of juvenile deviators in Japan: A study of the current status of deviant behavior among Japanese high school boys and girls

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The purpose was to present a paradigm of the scales useful for assessing tendencies of juvenile behavioral deviations. One thousand one hundred and sixty high school boys and girls, their teachers, and their parents participated in the study during the 10 years period. Rating scales were devised for assessing self-rating behaviors of these boys and girls by their teachers and parents. Significant differences were found, between the behavioral deviators and controls, primarily in such items as the perception of "the self (by him-/her-self)", "the self which is reflected by others (looking-glass self)", and "the social environment (which interacts with the self)". These differences included items related to introversion-extraversion, emotional stability, ego-concernedness, ego-centrism, self-control, and achievement motives. These items may be useful for devising a paradigm of assessing juvenile behavioral deviations. Present results indicated that behavioral deviations and cognitive styles of the deviators are related to each other, suggesting a possibility of cognitive modification of behavioral deviations.

Key words: juvenile behavioral deviation, cognitive style, rating scale, perception of the self, looking-glass self, introversion-extraversion, emotional stability.

Deviant behavior, of which delinquent behavior is a subset, has been extensively studied in the Western countries (e.g., Glueck & Glueck, 1957; Matza, 1964; Rutter & Giller, 1983). Theoretical interpretations have also been made regarding the aetiology of such a behavior (e.g., Becker, 1963; Lemert, 1967; Kaplan, 1972, 1975, 1980; Kaplan & Robbins, 1983). In this context, recent studies in Japan have shown that smoking, shoplifting, impure heterosexual association, stealing, motor-cycle accidents, neglecting one's studies, dishonest acts, violent acts, drug abuse, running away from home, and suicide are the major behavioral deviations of junior and senior high school boys and girls. However, each of these deviations was by no means occurring separately; rather their interrelatedness

with one another was a commonly observed fact. In addition, even the same pattern of deviant behavior appears to be different at different stages of psychological development of each boy or girl. And not all of these problem behaviors but some particular ones were significantly related to juvenile delinquency and behavioral offenses or crimes (Motoaki, Souma, Sako, Kimura, & Tomiie, 1978; Motoaki & Shigehisa, 1987). Under the circumstances, it is important to develop evaluation and assessment devices and techniques which make possible early and accurate detection of the tendencies of behavioral deviances of juvenile offenders (those who violate school rules and social regulations) in the school educational settings. An investigation of the relationships of early signs of deviant behavior and juvenile delinquency (subsequent delinquent behaviors), personality characteristics underlying these behaviors, and coping with these behavioral problems are the primary concerns of the

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The present study was designed to examine behavioral characteristics of the high school boys and girls exhibiting psychosocial (adjustment) problems, in comparison with those without such (personal or social) problems, in two contrasting sociocultural areas of Japan. The measurement devices were developed, based on previous studies (see, Motoaki, et al., 1978), to analyse those characteristics of the high school deviators, as judged by their teachers, which may be linked with their three major styles of perception. These styles can be identified as: (1) "the self-perception", in terms of their images regarding themselves as they think or feel (positive or negative), (2) "the reflected-self-perception", viz., those as thought or felt by others which in turn influence their thinking and feeling about themselves (socially desirable or undesirable), and (3) "the social perception", i.e., their images regarding other persons and social events which are significantly related to themselves (positive or negative).

The general assumption in the present study is that under a self-controlled, emotionally-stable and ego-concerned achievement motive, those students with potentiality of deviant behavior tend to minimize the experience of socially as well as personally undesirable (negative) self-images and to maximize the experience of personally and/or socially desirable (positive) self-images or perception. Negative self-images may develop if the boys and girls are unable to defend, adjust or cope with interpersonal relationships with their parents, teachers or peers, that may jeopardize or degrade their self-images. Such relationships may include parental rejection, lack of understanding or cooperativeness of their teachers and peers. Due to the perceived associations of the repeated experiences of these relationships and negative self-images, the students may lose self-achievement motives

conforming to their normative behavior patterns toward their parents, teachers and peers. As a result, vicarious behavior patterns will be developed, compensating such negative self-images. However, these behaviors will not be expected as socially-desirable patterns; hence they are labelled by their teachers and parents as deviant. It is predicted in the present study that these behavior patterns constitute behavioral characteristics of juvenile deviators in Japan.

Thus, the purpose of the present study was to present a paradigm (in terms of assessment scales) useful for predicting the occurrence of deviant behavior, by investigating the current status of behavioral deviances and offenses among Japanese high school students.

Method

Subjects

A total of 1 116 students, boys and girls, served as subjects, of which 522 were from five junior high schools and 594 were from six senior high schools, in the areas of Tokyo metropolitan and Fukuoka prefecture. The students, together with their parents and teachers (who were closest to these boys and girls), were administered with a series of tests and rating scales during a 10-year period, which were completed in 1982.

Items Used for Behavioral Analyses

Items (see, Tables 2, 3 and 4) used for analyzing the behavioral characteristics of the high school deviators (who exhibited deviant behavior) and offenders (those who violated rules and regulations) were rated by the students themselves and also by their teachers and parents, on a 4-point rating scale: definitely "yes" (applies), somewhat "yes", somewhat "no" (not apply), and definitely "no".

1. *Ratings of behavior by boys and girls themselves.* A 82-item rating scale was devised, through extensive factor analyses

through varimax rotations (Motoaki et al., 1978), to analyze the self-rating behavior (the cognitive styles) of the deviators and offenders, comprising three categories: the perception of "the self (oneself)", "the self which is reflected by others (or looking-glass self)", and "the social environment (which interacts with the self)". The first category, the perception of the self, comprised six sub-categories. These three categories included a total of 82 items, among which 10 were in extraversion-introversion (Ex) (a sub-category of the first category), and nine in emotional stability (Em) (see, Table 2), and so on. The rating scale included the items: (1) "I rather like to stay home quietly" (Ex), (2) "Any trivial thing worries me a lot" (Em), (3) "I can not change myself easily even if I know I am doing wrong" (Sc, self-control), and so on. (The whole rating scale items are available on request from the authors.)

(1) *The perception of the self (oneself)* (50 items). In this perception, the following six sub-categories were used to estimate the subjects' perceptions of him/herself.

a) "Extraversion-introversion" and "Emotional-stability" (19 items; see, Table 2)

These two categories were considered as those of the basic personality traits, which may be linked with criminality and neurotic tendencies (Eysenck, 1964, 1987), as shown by the results of analyses in the previous studies on institutionalized juvenile offenders who violated social rules and regulations (Motoaki et al., 1978).

b) "Ego-centrism" and "self-control" (15 items)

It was expected that the tendency to perceive the social events in such a way that is convenient to oneself, which may lead to inappropriate reality testing, may lead to an ego-centric or short-cut social approach and avoidance behaviors.

c) "Ego-concernedness" (5 items)

It was predicted that the deviator's lack of awareness of the characteristic style of

his-/her-own behavior in achieving his-/her-goal, or lack of the motivation to such a behavior, (ego-unconcernedness) may be related to the negative social perception.

d) "Achievement motive" (11 items)

Similarly, the achievement motives were measured in order to estimate the motivation, or the amount of effort exerted, which may be directly related to such a negative social perception.

(2) *The perception of the reflected-self* (14 items). This perception (the second category) was examined, without sub-categories, since as pointed out earlier there is a possibility that the negative self-images reflected by others (teachers, parents, or friends), i.e., the negative thinking or feeling about what the other persons are thinking or feeling about the deviator him-/her-self, are correlated with the behavioral characteristics of the deviators. "The reflected-self" defined here was derived originally from Cooley (see, e.g., Bartol & Bartol, 1986; Motoaki, 1988) and later described by Kitamura (see, e.g., Fukushima, 1984) as "the looking-glass self", which denotes the self or the ego as an object developed through a reflective thinking and feelings about what the other persons may say about him/herself. Thus, the development of the self as a function of this "reflected-self" can be understood as the process of internalization, into his/her own behavioral system, of the attitudes of the other persons toward him/her. Under the circumstances, the study of "the reflected self-images" is considered essential for understanding the social functions of ego as a modulator of behavior and awareness of the individual.

(3) *The perception of the social environment* (18 items). With regard to "the perception of the social environment" (the third category), it has been pointed out that, depending on age, the behavioral characteristics of the juvenile deviators correlate well with the positive or negative perception of the socially undesirable

Table 1
Classification of boys and girls, based on the ratings by their teachers ($N=1093$)

		Control group I (Without problem)	Control group II (Without noticeable problem)	Deviators group (With problems)	Total
Junior high school	Boys	160 (42.8%)	159 (42.5%)	55 (14.7%)	374 (100%)
	Girls	76 (35.8%)	119 (56.2%)	17 (8.0%)	212 (100%)
Senior high school	Boys	85 (33.1%)	147 (57.2%)	25 (9.7%)	257 (100%)
	Girls	123 (49.2%)	110 (44.0%)	17 (6.8%)	250 (100%)

(prohibited) events and the stereotyped positive or negative perception of the social events or norms (Motoaki et al., 1978). This category was used without sub-categories.

II. *Ratings of students' behavior by teachers and parents.* Two 10-item rating scales were used to determine behavioral characteristics of the boys and girls, one set by their parents and another set by teachers who were closest to these boys and girls (see, Tables 3 and 4 for each item). These two scales were devised on the 10 items derived from the two categories and six sub-categories of the students' self-rating scale (see, I, above) so that these items match with those categories/sub-categories; in such a way that the sub-category "extraversion" matches with the item "(a) sociable" in Tables 3 and 4, "emotional stability" matches with "(b)", "ego-centrism" with "(c)", "self-control" with "(d)", "ego-concernedness" with "(h)", "achievement motive" with "(i)", "perception of the reflected-self" with "(e), (f) and (g)", and "perception of social environment" with "(j)". In addition, confidence level was estimated by the teachers and parents about their judgements, using a 100-point rating scale.

Classification of the Students

The teacher who was most acquainted with each of the students classified them into the following three groups or categories: Control group I (without problem or deviance). Control group II

(without noticeable problem or deviance). Deviators group (with problems, deviances or offenses). Criteria for "the deviators group", which are based on the results of principal component analyses in the previous study (Motoaki et al., 1978), included one or more of the following: "exhibiting delinquent behaviors", "frequently violating school rules and regulations", "maladjusted to the group-oriented behavior", "exhibiting major emotional disturbances", and "exhibiting apparent autistic tendency". The results are shown in Table 1.

Behavioral characteristics of these criteria appeared in Introduction. In the previous studies (Motoaki et al., 1978; Motoaki & Shigehisa, 1987), it was shown that any single criterion is reflecting only a part of the common denominator (or the trait which does not change overtime) which underlies all other criteria, and that behavioral characteristics of the deviators group defined on this trait or common denominator (but not a part of it) can be used as a general predictor of proneness to major behavioral deviations. In this context, it is emphasized that in defining any particular concept satisfactorily the area covered should not be too restricted if the resulting factors are to have any general meaning (Eysenck & Eysenck, 1975). And in fact each single criterion does not predict accurately major behavioral tendency (Bandura, 1989). Thus, in the present study, five criteria were combined to give a global measure which would increase and widen general

Table 2
Comparison between control group I and deviators group, in terms of percentage
of "yes" (applies) to each item about the perception of the self

	Senior high school		Junior high school	
	Control group I	Deviators group	Control group I	Deviators group
Extraversion-introversion				
1. I like staying home quietly	42.9	27.8 *		
9. I try to do anything voluntarily	49.6	66.7 *		
17. I like to enjoy things cheerfully				
25. I don't like crowded place				
33. I prefer being alone			12.0	23.8 *
41. I have many friends			85.6	61.9 *
49. I go about with anyone easily	61.0	75.0 *		
57. I am a talkative person				
65. I feel tired from talking to people			5.3	16.7 *
73. It is laborious to me to be a friend of someone			19.7	38.1 *
Emotional-stability				
2. Worries rack my brain				
10. I get excited easily and cool off easily	54.2	69.4 *	39.4	61.9 *
18. My feelings appear on the face				
26. I feel like throwing something				
34. I get angry if I don't like something				
42. I am not a hotheaded person				
50. I do not complain of anything	49.2	27.8 *		
58. I get disgusted suddenly	39.0	55.6 *		
66. I can not sit still, if I get irritated	68.6	81.9 *		

Note: * indicates a significant difference between the groups (χ^2 tests, $p < .05$).

Non-significant figures are not shown in the table.

predictability of the potential deviance; and this was considered important. In this sense, instruction given to the teachers dictated not to apply separately each criterion while rating the students, since these criteria are interrelated to give a major behavioral symptom, the deviance. It is this deviance, rather than what is deviated, which is a primary concern of the present study.

Results and Discussion

Comparison of "Deviators Group" and "Control Group", in Terms of Ratings of Behavior by the Students Themselves

In order to clarify the behavioral characteristics of the deviators, results

obtained using the rating scale were compared between the deviator group and the control group I (see, Table 1). The results obtained using a 4-point rating scale were combined to yield a 2-point score of "yes" (applies) and "no" (does not apply). These scores were then compared between the deviators group and the control group I. Results are shown in Table 2, in terms of the percentage of "yes" to each item in each group.

(1) *Perception of the self.* a) *Introversion-extraversion.* Response pattern in this category were found to be different, from each other, between the junior high school students and the senior high school students. Items showing significant differences between the deviators group and

the control group are also different between them. These results indicated that the senior high school deviators tend to be more extraverted in the general activity, whereas the junior high school deviators tend to be more introverted in the interpersonal relationships. In addition, these tendencies were greater among boys than girls, in both junior and senior high school students.

b) *Emotional stability*. In this category, there were more significant differences, between the deviators group and the control group, in the senior high school students than in the junior high school students. Furthermore, emotional instability or lability was significantly related to the deviant behavior among the senior high school boys ($p < .05$) but not in girls.

c) *Ego-centrism*. The common feature of the deviators group, among the junior and the senior high school boys and girls, was "the lack of cooperativeness", which may be correlated with their criminal behavior.

d) *Self-control*. Significant differences in this category between the deviators groups and the control groups were found predominantly among the senior high school students, indicating that easy-going/happy-go-lucky attitudes toward everyday living events, such as solving difficult problems, are linked primarily with the behavioral deviances or offenses of the students at later developmental stages.

e) *Self-concernedness*. In this category, aggressiveness or hostility in interpersonal relationships and the deviators' behavior were related to each other, and sloppy or desperate attitude was linked with deviant behavior. However, any consistent relationship or such a trend was not found among the junior high school and senior high school boys and girls, in terms of this category.

f) *Achievement motive*. There was a certain relationship between the lack of persistent effort and the behavioral devia-

tions, among senior high school boys, but not in girls.

These results indicate that "the perception of the self" is characterized, primarily in the senior high school deviators (boys, but not in girls), by personality traits of extraversion and emotional instability or lability, lack of cooperativeness, easy-going attitude toward solving every day living problems or difficulties, and lack of persistent effort. In fact, these characteristics were rare in other juvenile deviators, such as senior high school girls or junior high school boys and girls.

(2) *Perception of the reflected-self*. Items in this category comprised "the looking-glass self" of the students, which may become aware of through the social interactions with their friends, teachers and parents (i.e., how the other person is thinking or feeling about him/herself). This category was considered to include past experiences related to such a self and the negative self-image related to the school environment. Among the junior and senior high school students, the negative perception of the self was correlated with behavioral deviations and offenses, indicating that the negative thinking and feeling about themselves in the social interaction situation with their friends, teachers and parents are linked with their deviant behavior.

(3) *Perception of the social environment*. Among the junior and senior high school students, there was a certain correlation between the behavioral characteristics of the deviators and the positive (favorable) perception of the socially undesirable (prohibited) activities or places where those activities take place, such as smoking, sex-related activities or amusement quarters, which may be open to adults but difficult of access for adolescents. At the same time, these characteristics of the deviators tended to correlate with the negative (unfavorable) perception of the rules of adult society represented by their teachers, parents, police authorities, etc.

Table 3
Comparison of the major behavioral characteristics of school boys and girls between control group I and deviators group, in terms of percentage of "yes" (applies) to each item by their teachers

	Senior high school		Junior high school	
	Control group I	Deviators group	Control group I	Deviators group
a. Sociable	78.4	51.4 *	81.7	38.1 *
b. Irritable	9.7	69.5 *	16.8 (73.1)	73.8 * (54.8) (*)
c. Ego-centric and selfish	14.0 (43.6)	40.3 * (69.4) (*)	19.2	78.6 *
d. Do things without being told	86.8	11.1 *	85.1 (76.0)	21.4 * (45.2) (*)
e. Good student (in teacher's eyes)	99.1	19.5 *	97.6 (86.5)	21.4 * (35.7) (*)
f. Obedient and docile	97.0 (83.9)	25.0 * (69.4) (*)	99.0 (88.5)	54.8 * (52.4) (*)
g. Observe school rules well	98.3 (86.0)	18.1 * (73.6) (*)	99.5 (86.5)	47.7 * (47.6) (*)
h. Do anything for his/her life	88.1 (37.3)	13.9 * (63.9) (*)	94.3 (52.9)	31.0 * (28.6) (*)
i. Hard worker	79.6	9.7 *	77.0 (60.6)	9.5 * (40.5) (*)
j. Socially-naive	74.6 (27.5)	40.3 * (50.0) (*)		

Note: Confidence level is indicated in parentheses.

* $p < .05$, χ^2 tests.

Comparison of "Deviator Group" and "Control Group", in Terms of Ratings of the Students' Behavior by Their Teachers and Parents

(1) *Ratings by the teachers.* Table 3 shows results of the ratings of the students' behavior by their teachers, on the 10-item rating scale (representing the major behavioral characteristics of the students, which may be linked with deviant behavior). These results indicated significant differences between the deviators group and the control group I, in all 10 items (a to j) in senior high school students and 9 items (a to i) in junior high school students. The rated score (the percentage of "yes" or "applies") for "frank and sociable" was greater in the control than in the deviators groups, in both senior and junior high school boys and girls. These results indicate that the deviators are perceived by their teachers as being "unsociable" and "frankless".

The scores for "irritable", and also for "ego-centric and selfish", were predominantly greater in the deviators than in the control groups. This type of difference was also seen, although to a less extent (and in the opposite direction viz., the control groups showed greater scores), for "do things without being told", "good (or desirable) student", "obedient and docile", "observe school rules well", "do things with absorbed interest", and "hard worker", in both junior and senior high school students. In addition, the scores for the "social naivety" indicated that the deviators are clearly more socially-sophisticated or dissimulating than the control groups among the senior high school students.

The present results indicated that the confidence level of the ratings (regarding the major behavioral characteristics of the students) by the teachers are less for the

Table 4
Comparison of the major behavioral characteristics of school boys and girls,
between control group I and deviators group, in terms of percentage
of "yes" (applies) to each item by their parents

	Senior high school		Junior high school	
	Control group I	Deviators group	Control group I	Deviators group
a. Sociable			90.4 (71.2)	71.4 * (52.4) (*)
b. Irritable	32.2	48.6 *	32.2	69.1 *
c. Ego-centric and selfish	22.9 (72.0)	43.3 * (59.7) (*)	27.5	40.0 *
d. Do things without being told	64.5	48.6 *	49.0	19.1 *
e. Present parent-child relationship is acceptable	83.0	72.2 *	91.4	71.4 *
f. Scolded my child very often	47.0	61.6 *	60.1	76.2 *
g. My child had not been obedient or docile	16.5	36.1 *	24.5	42.9 *
h. Do anything for his/her life	74.6	62.5 *	70.6	40.5 *
i. Hard worker	55.9	37.5 *	44.2 (74.5)	16.7 * (52.4) (*)
j. Socially-naive				

Note: Confidence level is indicated in parentheses.

* $p < .05$, χ^2 tests.

deviators than for the control groups among the junior high school students (see, Table 3), suggesting that the teachers know less about (and are less aware of) the deviators' behavioral tendencies than the control students. However, the teachers' ratings of the confidence level for the senior high school students showed the results to the contrary. It is possible then that the less confident responses of the junior high school teachers to the deviators' everyday behaviors, as opposed to the lack of consistent difference in the confidence of responses of the senior high school teachers between the groups, may be linked with the fact that the greater part of everyday living activities of the junior high school students are not well known by their teachers as compared with those of the senior high school students. The behavioral characteristics of the juvenile deviators perceived by their teachers can be summarized as follows: unsociable, irritable, ego-centric and selfish, not doing things (they should be doing)

unless told (or directed) by someone, unpleasant (bad) students, eagerless (less attentive), awkward, not docile or obedient, not observing school rules and regulations, and not working (or studying) hard enough. In the case of the senior high school students exhibiting behavioral deviances, "socially-sophisticated and dissimulating aspects" (i.e., the lack of social naivety) are also included to constitute these characteristics.

(2) *Ratings by the parents.* As shown in Table 4, the parents of the senior high school deviators (as compared with those of the control students) showed the greater tendency to judge their children as: "irritable", "ego-centric and selfish", "not studying or doing things without being told", "the parents-child relationships are bad", "frequently scolded or punished", "had been stubborn", "not earnest or eager", and "not making effort". In addition, the parents of the junior high school deviators judged their children as "less sociable or friendly",

Table 5
Comparison of the perceived behavioral characteristics of "the senior high school" deviators, by their teachers and parents: In terms of the items showing significant differences from those perceived by the teachers and parents of the control boys and girls

	Teachers		Parents	
	Boys	Girls	Boys	Girls
Unsociable	*	*	<i>ns</i>	<i>ns</i>
Irritable	*	*	*	<i>ns</i>
Ego-centric	*	*	*	<i>ns</i>
Not doing things unless told by someone	*	*	*	<i>ns</i>
Stubborn	*	*	*	*
Lack of absorbed interest	*	*	*	<i>ns</i>
Lazy worker	*	*	<i>ns</i>	*
Socially sophisticated	*	*	<i>ns</i>	<i>ns</i>

* $p < .05$, χ^2 tests.

than those of the control group.

Among the senior high school boys, rated scores of the deviators were significantly different ($p < .05$, χ^2 tests) from those of the control students in the following items: "irritable", "ego-centric and selfish", "not doing things unless told by someone", "being stubborn", "difficult to handle or manage", "not keen to do anything", and "not industrious". On the contrary, among the girls, the significant differences were found in the three items: "not obedient or docile", "not keen to do anything", and "not studying hard enough". Among the junior high school boys, such differences ($p < .05$, χ^2 tests) were found in the items: "unsociable, irritable, ego-centric, doing things only if told by someone, being in a bad parent-child relationship, frequently being punished, being stubborn, and lazy worker". On the contrary, among the girls, the differences were found to be significant only in the following items: "unsociable, being irritable, ego-centric, not earnest, and not working hard."

(3) *Comparison between the ratings by the teachers and the parents of the deviators.* Table 5 summarizes the results which revealed the tremendous differences in the girls in

the senior, but not in junior, high schools; indicating that the parents' perception of their deviant children are more generous or lenient than the teachers' perception of their deviant students, which may lead to difficulties in developing means of preventing and coping with such deviances at the later stage of development.

The results of the present study indicate that through the determination of such categories as "emotional stability", "achievement motives", "ego-centrism", and "self-control", it is possible to detect early tendencies toward deviant behavior, of which delinquent behavior is a subset, characterizing subsequent criminality or socio-culturally maladjusted behavior. However, all these categories are heavily weighted by such biases as general ethical views and social desirability, resulting in common sense images and ideas which must be carefully examined and interpreted. Under the circumstances, the present results suggest three categories emphasis of which may be useful for detecting the behavioral characteristics of the potential deviators. They are "the social perception", "the perception of the reflected-self", and "the extraversion-introversion".

Although the rating scale items used to determine the aspects of these categories may not always be useful for detecting early signs of socially maladjustedness if applied without caution taking into consideration the social biases as noted above, it is expected that clarifying "the cognitive structure" of the potential deviators may lead to an useful paradigm for developing the means of predicting their prospective behavioral symptoms. The items useful for clarifying such cognitive structures may include: (1) perception of the self, in terms of introversion-extraversion, emotional stability-instability, ego-centrism, self-control, and achievement motives, (2) perception of the reflected self (or looking-glass self), in terms of misunderstanding by others, and (3) perception of the social environment, in terms of socially-maladjusted behaviors.

From these results, it is concluded that such a paradigm may comprise first of all those items of the perceptions: of the self (ego-concernedness, ego-centrism, self-control, extraversion, achievement motives), of the reflected-self, and of the social environment. Finally, standardization of the procedure is essential for clarifying whether these items indeed serve as effective scales in predicting behavioral characteristics of the juvenile deviators and offenders. Under the circumstances, the present results and the paradigm above provide useful information for developing the scales characterizing the behavioral problems of the juvenile deviators. The present results clearly show that "the cognitive styles" of the juvenile deviators are closely associated with their behavioral problems. And, therefore, it is obvious that the means of modifying such cognitive styles may lead to the modification of the tendencies to behavioral deviations. It is possible then that such a cognitive modification can be attained through educational interventions; and that one of the important roles of education today is to modify such cognitive

processes or to educate and develop potentialities of such cognitive modification.

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(Received Feb. 15, 1989; accepted Sept. 8, 1990)