The study investigated the following: (1) the relationship of problem solving appraisal to narcissistic vulnerability, locus of control, and depression; (2) the differences in problem solving appraisal, locus of control, and depression in first-time and repeat offenders; and (3) the prediction of problem solving appraisal by narcissistic vulnerability, locus of control, and depression in delinquents. Delinquent male adolescents (N=146) voluntarily completed a packet of instruments which included a revised measure of problem solving appraisal and measures of narcissistic vulnerability, locus of control, and depression. Results suggested a significant relationship between facets of problem solving appraisal and narcissistic vulnerability, locus of control, and depression in delinquent adolescents. These findings indicate that youth who appraise themselves as less confident and who have a tendency to avoid problem situations are more apt to experience depression, to possess an external locus of control, and to exhibit narcissistic vulnerability along the idealized sector. No significant differences in problem solving appraisal were detected between first-time and repeat offenders. Both groups appraised themselves as ineffective problem solvers. For repeat offenders, problem solving appraisal is predicted by peer-group dependence which would suggest that repeat offenders who appraise themselves as ineffective problem solvers tend to rely on their peers to sustain self-esteem. (RJM)
Problem Solving Appraisal of Delinquent Adolescents

Ruperto M. Perez
University of Georgia

Richard W. Thoreson, Michael J. Patton, P. Paul Heppner, & Leslie Eastman Lukin
University of Missouri-Columbia

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Introduction

This study examined the problem solving appraisal of delinquents and the relationship of problem solving appraisal to narcissistic vulnerability, locus of control, and depression. The personal problem solving paradigm of Heppner and Krauskopf (1987) provides a means of examining problem solving appraisal in delinquents. Problem solving appraisal is defined as a metacognitive operation through which persons examine their ability to comprehend the nature of their conflicts and their problem solving styles (Heppner, 1988). In conjunction, Kohut’s (1971, 1977, 1984) theory of the self lends itself to an understanding of the delinquent personality serves as a theoretical framework from which to understand problem solving appraisal of delinquents. Delinquents who possess a fragile sense of self may approach problem situations with less confidence in their abilities to problem solve, feel less in control of their problem situations, and avoid dealing with dilemmas directly. To date, little is known about how delinquent adolescents appraise their problem solving abilities and the influence of personality and emotional variables upon the problem solving process.

Purpose of Study

This study was designed to investigate the following: (a) the relationship of problem solving appraisal to narcissistic vulnerability, locus of control, and depression, (b) the differences in problem solving appraisal, locus of control, and depression in first-time and repeat offenders, and (c) the prediction of problem solving appraisal by narcissistic vulnerability, locus of control, and depression in delinquents.

Method

Participants

Delinquent male adolescents (N = 146) from three state institutions voluntarily completed a packet of instruments which included a revised measure of problem solving appraisal, three measures of narcissistic vulnerability, locus of control, and depression. A total of 153 youth participated in the study, though 7
subjects were excluded from the final subject pool because of failure to complete the entire questionnaire packet or because their responses to the instruments reflected a random or haphazard response style. In the final group, a total of 146 subjects were included in this study (52.1% African-American, 39% White-Caucasian, 2.7% Hispanic, 1.4% Asian, 2.7% Native American, 2.1% no response). The mean age for subjects was 16.45 with ages ranging from 12-20 years of age (SD = 1.20). Fifty-four percent of the subjects identified themselves as first-time offenders (mean age = 16.44, SD = 1.18) and 46% identified themselves as repeat offenders (mean age = 16.46, SD = 1.23).

Fifty-four percent of the subjects (N=79) were located in two regional correctional facilities (learning centers) in Virginia designed to house adjudicated adolescents (26% African-American, 21.92% White-Caucasian, 1.37% Hispanic, 1.37% Asian, 2.05% Native American, 1.37% no response). Of these subjects, 38% identified themselves as repeat offenders and 62% identified themselves as first-time offenders. The remaining 46% of the subjects (N=67) were located in a regional detention center in Florida designed to house youth who had been arrested for a variety of offenses but who had not yet been adjudicated by the court system (26% African-American, 17.12% White-Caucasian, 1.37% Hispanic, .68% Native American, .68% no response). Of these subjects, 55% identified themselves as repeat offenders and 45% identified themselves as first-time offenders. Data on individual educational backgrounds (e.g., reading levels, IQ), SES, type of offense, or other archival data were not readily available. Also, females were not included in this study because of the low number of female subjects available.

Delinquent youth are defined here as those adolescents who have been either arrested for some offense and placed in detention or those youth who have been arrested for an offense, adjudicated as delinquent by the committing court, and placed in a state correctional facility (i.e., learning center). Youth were asked to identify themselves on the demographic data sheet as either first-time or repeat offenders. First-time offenders were defined as those youth placed in detention or adjudicated as delinquent with no previous commitment or detention center placement history. Repeat-offenders were defined as those youth who have previously been placed in detention or those youth with prior delinquent adjudication histories.
Instruments

**Problem Solving Inventory.** The Problem Solving Inventory adolescent version (PSI-C; Heppner, Manley, Perez, & Dixon, in progress; Perez, Dixon, & Heppner, 1991) is a 35 item instrument based on a 6-point Likert-type scale and was used to assess problem solving appraisal in the delinquent group. In initial studies, the PSI-C has demonstrated adequate reliability for use with adolescents (total inventory, $\alpha = .88$; problem solving confidence, $\alpha = .78$; approach-avoidance, $\alpha = .84$; personal control, $\alpha = .52$; test-retest = .70, $p < .0001$) (Heppner, Manley, Perez, & Dixon, in progress; Perez, Dixon, & Heppner, 1991).

**Beck Depression Inventory.** The Beck Depression Inventory (BDI; Beck, 1978) is a widely used measure to assess symptoms and various levels of depression. The BDI is a 21 item instrument based on a 4-point Likert scale with items reflecting various features of depression. Reliability and validity estimates for the BDI reflect adequate psychometric properties.

**Children's Nowicki-Strickland Internal-External Locus of Control Scale.** The Children's Nowicki-Strickland Internal-External Locus of Control Scale (CNSIE; Nowicki & Strickland, 1973) is designed to assess the degree to which reinforcement is controlled for an individual. The scale contains 40 forced-choice items and has demonstrated adequate psychometric properties in its use with adolescents.

**Shame-Proneness Scale.** The Shame-Proneness Scale (SP; Shreve & Patton, 1988) was developed as a measure to assess the susceptibility of individuals to experience shame which may be indicative of a critical defect in the self. This hinders an individual from sustaining a healthy sense of self-esteem. The instrument contains 10 items based on a 6-point Likert scale and has a potential total score ranging from 10 to 60. Low scores reflect disagreement with the shame-prone items while a high score indicates a strong agreement with the shame-prone items (Shreve & Patton, 1988). The scale reflects adequate psychometric properties ($\alpha = .93$; test-retest = .81).

**Pseudoautonomy and Peer-Group Dependence Scales.** The Pseudoautonomy (PA) and Peer-Group Dependence (PGD) scales attempt to assess narcissistic vulnerability along the grandiose and idealizing poles in adolescents (Lapan & Patton, 1986; Patton & Meara, 1992). The PA scale attempts to assess the degree
of narcissistic vulnerability along the grandiose sector in adolescents. Endorsement of those items keyed as representing the grandiose sector is related to a defensive nature towards others who appear critical (Lapan & Patton, 1986). Endorsement of those items keyed as representing the idealizing sector is related to the adolescent's defensive style of attaching to peers and significant others in order to substitute for his/her own internal values and ambitions (Lapan & Patton, 1986).

Both scales are based on an 8-item forced choice format. Overall reliability estimates (KR-20) for the PA (.77) and PGD (.75) scales reflect high internal consistency for both scales.

Results

Three major analyses were used. First, a canonical analysis revealed a significant relationship between facets of problem solving appraisal to narcissistic vulnerability, depression, and locus of control ($R^2_c = .26$). From this analysis, youth who tend to appraise themselves as lacking in problem solving confidence and who tend to avoid problems, may be more likely to possess an external locus of control and experience vulnerability along the idealizing self sector.

Second, Hotelling's $T^2$ found no significant differences in problem solving appraisal between first-time and repeat offenders ($F(6,139) = 1.97$, $p > .05$). Both first-time and repeat offenders appraised themselves as ineffective problem solvers.

Third, two hierarchical regression analyses were employed to predict problem solving appraisal for first-time and repeat offenders. Results indicated that pseudoautonomy ($R^2 = .12$), peer-group dependence ($R^2 = .22$), and shame-proneness ($R^2 = .26$) significantly predicted problem solving appraisal in first-time offenders. The full equation accounted for 29% of the variance in problem solving appraisal for first-time offenders. For repeat offenders, only peer-group dependence ($R^2 = .21$) predicted problem solving appraisal. The full equation accounted for 26% of the variance in problem solving appraisal for repeat offenders.
Discussion

This study was subject to limitations of various sorts, although every attempt was made to control for or eliminate potential confounds. Because of these limitations, the results should be approached with some caution and consideration of the limitations before generalizing to delinquent populations as a whole. First, the exploratory design of this study indicates that the results should be considered as preliminary. At best, the results presented in this study should serve as a guide for further research and investigation.

Second, the delinquent population which comprises the sample population of delinquents is limited only to male delinquents and to specific geographic regions. The samples used in this study have been drawn from a specific geographic locations and may not be representative of delinquents as a whole across the country. Variations in local adjudication procedures and commitment proceedings may bias this sample.

Third, some instruments were corrected for missing data. While attempting to adhere to theory and to be methodical in the estimation of missing data, some of the responses in the data set represented in this study cannot be considered as completely "pure" responses.

Fourth, research on the revised Problem Solving Inventory (PSI-C; Heppner, Perez, & Dixon, research in progress) is still in its early stages. Continued research is needed to replicate the original findings (Perez, Heppner, & Dixon, 1992) and to establish reliability and validity estimates of the revised instrument with other populations.

The results of this study are threefold. First, the canonical analysis results suggests that there is a significant relationship between facets of problem solving appraisal and narcissistic vulnerability, locus of control, and depression in delinquent adolescents. Specifically, these results indicate that youth who appraise themselves as less confident and have a tendency to avoid problem situations are more apt to experience depression, possess an external locus of control, and to possess narcissistic vulnerability along the idealized sector. As a result, delinquent youth may tend to turn to other delinquents to gain confidence in their problem solving abilities and to build self-esteem.
Second, no significant differences in problem solving appraisal were detected between first-time and repeat offenders. Both groups appraised themselves as ineffective problem solvers. However, delinquents' total problem solving appraisal was significantly related to moderate scores on depression, locus of control, and shame-proneness, and low scores on pseudoautonomy and peer-group dependence. This may indicate the denial of first-time offenders to the seriousness of their adjudication or detainment status in order to protect against further injury to the self and avoid experiencing feelings of shame, guilt, or low self-esteem. This denial may also explain, in part, why first-time offenders and repeat offenders appraised their problem solving abilities similarly.

Third, problem solving appraisal as predicted by narcissistic vulnerabilities along both idealized and grandiose sectors for first-time offenders, suggest that these youth who tend to portray themselves as pseudoautonomous, dependent on their peers, and susceptible to shame appraise themselves as ineffective problem solvers. For repeat offenders, problem solving appraisal is predicted by peer-group dependence which would suggest that repeat offenders who appraise themselves as ineffective problem solvers tend to rely on their peers to sustain self-esteem.

Overall, problem solving in delinquent youth appears to be a complex process which includes several cognitive and metacognitive variables which may be related to personality variables. Problem solving appraisal may be instrumental in understanding the complex nature of problem solving in delinquents. Continued research is needed to replicate these initial findings and to explore the nature of problem solving appraisal as it might relate to severity of offense and cultural or gender differences in delinquents.
References


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