

**THE YOUNG ADULT OFFENDER (YAO) PROGRAM AT SCI-PINE GROVE:
AN EVALUATION OF THE LINK BETWEEN THERAPEUTIC COMMUNITY
PARTICIPATION AND SOCIAL COGNITIVE CHANGE AMONG OFFENDERS**

Principal Investigator:
Ariana Shahinfar, Ph.D.
Department of Psychology
La Salle University
Philadelphia, PA 19141

Project Funding Source:
The Pennsylvania Commission on Crime and Delinquency (PCCD)

Acknowledgements:

I wish to thank the following individuals, without whom this work could not have been completed: Gary Zajac at the Research and Evaluation Branch of the Pennsylvania DOC; David Close, Kevin McCausland, Jamey Berkheimer, and Barry Johnson at SCI-Pine Grove; and a cadre of dedicated undergraduate and graduate research assistants: Tracy Kloczynski, Colleen Davin, Jessica Glass, Leigh Anne Daniels, Claire DeLabar, Steven Haran, Jessica Percodani, Kristle Baillargeon and Heather Francis.

TABLE OF CONTENTS

I: Project Background	2
Purpose of project	2
Cognitive processes underlying aggressive behavior	3
II: Methods	5
Project design	5
Project participants	5
Measures of social cognition	6
Measures of community thinking	8
Measure of personal growth	9
III: Results and Discussion	10
Evaluation of the feasibility of measuring and tracking social cognitive change among YAOs	10
Examination of whether differences in social cognitive skills and community thinking were linked to inmate progression through the YAO program	11
Evaluation of individual change in inmate social cognitive skill, community thinking and self-assessed personal growth	12
IV. Conclusion	14
V. References	16

I: PROJECT BACKGROUND

Purpose of Project:

Despite challenges to the structure, function, and purview of the juvenile court system over the past several decades, one concept has remained fairly stable – that of the importance of the “therapeutic community” in working with juvenile and young adult offenders within corrections programs (Lipsey, 1999). Interestingly, although the therapeutic community model is nearly universally implemented across juvenile programs in the United States, relatively little attention has been drawn to examining *exactly how* the therapeutic community works toward developing positive attitudes and improved behavior among adolescent offenders. Traditionally, we have inferred that the therapeutic community has promoted positive outcomes when, for example, a decrease in infractions can be documented among incarcerated adolescents within a juvenile facility. What we don’t know when we use behavioral change as a proxy for therapeutic outcome, however, is whether behavioral improvement resulted from temporal behavior shifts due to contextual constraints (i.e., the fact of incarceration) or whether meaningful and long-lasting therapeutic change has been achieved.

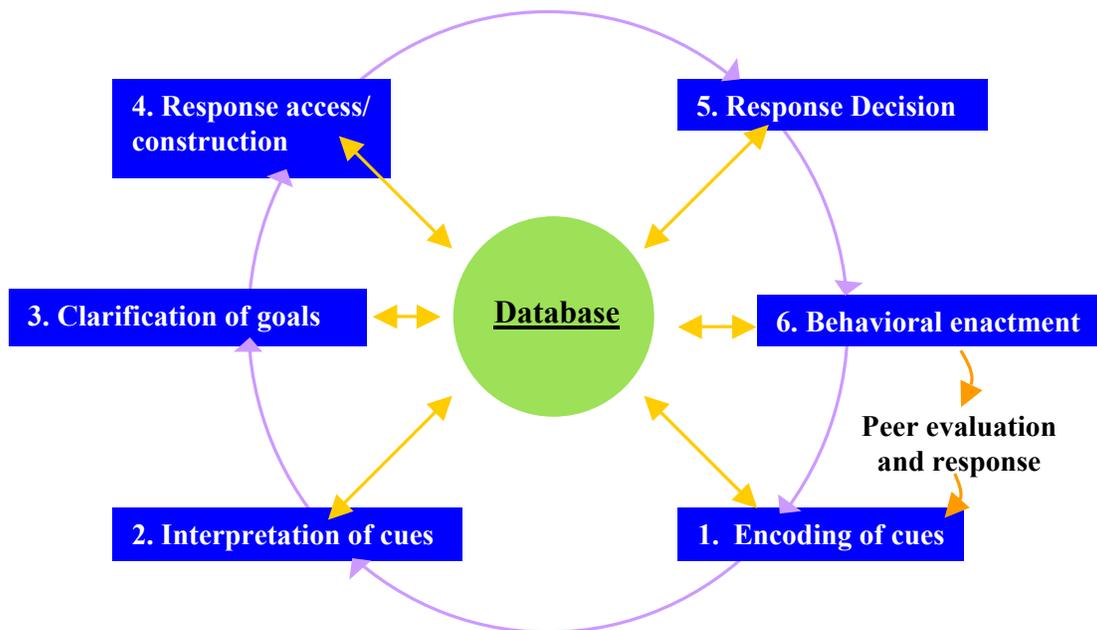
The juvenile boot camp literature provides an excellent case for the importance of distinguishing between behavioral improvement that results from contextual constraint and that resulting from change in the cognitions underlying behaviors. Evaluations of boot camp settings found that juvenile behaviors were altered in the detention center context, but that this did not necessarily generalize to post-release behavior in the community (e.g., MacKenzie, 1994). It may be argued that part of the reason that boot camps did not directly influence recidivism was that those who first advocated for the boot camp structure were interested in charting changes in behavior, but did not attend to those factors (i.e., cognitive processes) underlying this behavioral change. As a result, the juveniles attending boot camps were often released for their good behavior in the program, but then re-offended when placed back into the community. The speculation is that the behavioral changes the adolescent offenders demonstrated within the boot camp setting were more a function of the restrictive context rather than a change achieved in the cognitive processes underlying aggressive behavior. Without these contextual supports, adolescents for whom cognitive change had not been achieved would naturally return to their original set of behaviors.

The main purpose of this project was to assess the extent to which participation in the YAO program was linked to change in the cognitions underlying aggressive behavior among a group of incarcerated young adult offenders (n=156) housed at the SCI Pine Grove facility. This purpose was supported by three underlying goals: Our first goal was to evaluate the feasibility of measuring and tracking social cognitive change among Pennsylvania’s YAO population. The second goal was to examine whether differences in social cognitive skills and community thinking were linked to inmate progression through the YAO program’s “phases and levels” system of institutional promotion. The third goal was to evaluate individual change in inmate social cognitive skill and community thinking over time. The concepts underlying those factors which constitute “social cognitive skills” are described below.

Cognitive Processes Underlying Aggressive Behavior

The literature on social information-processing suggests that the way in which individuals view their social environments, including how they cognitively process and encode social information, largely determines behavioral response in a social situation (Crick & Dodge, 1994; Dodge, 1980; Dodge, 1986). Specifically, the social information-processing model posits that individuals pass through a series of cognitive steps when they are faced with social interaction (see Figure 1). For example, they must attend to relevant social cues, interpret those cues, choose among goals in the social interaction, and develop and choose among behavioral response options (Crick & Dodge, 1994). According to this model, each social interaction begins with a database of information regarding past social experiences that guides the individual's thinking in the new social situation. In turn, the information gained from each new social interaction regarding a behavior's effectiveness in achieving a particular social goal is then integrated into the database as information for use in the next social interaction. The literature on the treatment of juvenile offenders has continually supported the importance of working with social information-processing skills through cognitive-behavioral treatment (e.g., Loeber & Farrington, 1998). It is the development of these social information-processing skills that is thought to produce meaningful change in behavior.

Figure 1. Social information-processing model (adapted from Crick & Dodge, 1994)



Theories of social information-processing and related social cognitive processes have been specifically applied to understanding the development of aggressive and delinquent behavior among children and adolescents. Studies have demonstrated that aggressive children are more likely than non-aggressive children to endorse aggressive behavioral standards (Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Huesmann, Guerra, Zelli, & Miller, 1992) and cognitions regarding the legitimacy of aggression as a social response (Slaby & Guerra, 1988).

Aggressive children and adolescents also report more antisocial, aggressive beliefs than their nonaggressive peers (Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Guerra & Slaby, 1989; Slaby & Guerra, 1988). Certain types of aggressive children (“reactive aggressors”) have been shown to cognitively process fewer cues in a social situation before making a hasty and often aggressive response, while other types of children (“proactive aggressors”) have been shown to display aggression in the service of instrumental goals (Crick & Dodge, 1994). These findings have been reported in samples of non-delinquent children and adolescents as well as within adolescent offender populations (Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Dodge, Price, Bachorowski, & Newman, 1990; Shahinfar, Kupersmidt, & Matza, 2001).

Traditionally, the patterns of social information-processing which underlie aggressive behavior have been considered to be “maladaptive”. The focus of cognitive-behavioral treatment programs is on working with these faulty cognitions toward improving behavioral adjustment. On some level, however, it must be acknowledged that adolescents who have been raised in chaotic and dangerous home and/or community contexts have developed appropriate cognitive tactics to deal with the environment in which they were placed. The problem occurs when the community context changes (i.e., removal to the therapeutic community) and these tactics are no longer “adaptive”. The stated goal of the therapeutic community within the Young Adult Offender Program is to encourage behavior modification through positive participation in the community (YAO Program Procedures Manual, 2000). It is further stated that “the philosophy of the [therapeutic] community is to build new thought processes, produce norms by participation in positive activities, and [to reward offenders for positive participation]” (YAO Program Procedures Manual, 2000, p. 3).

The question that lies at the heart of this project is whether and how these young adult offenders adjust their cognitions in the face of the therapeutic community environment: How do aggressive adolescents respond when the context in which they are operating shifts from a threatening environment in which aggressive behavior is rewarded on some level, to one in which each individual is responsible for taking part in the community and in maintaining order, as is the case in SCI Pine Grove’s Young Adult Offender Program?

II: METHODS

Project Design

The basic research design utilized was a short-term longitudinal measurement strategy in which offenders' social cognitions were measured at two separate interviews, in order to offer analysis of both cross-sectional and longitudinal data points. The time lapse between interviews was approximately 20 weeks, a number recommended by the staff at SCI Pine Grove to represent the modal amount of time required for the average inmate to advance to the next phase of programming.

Trained undergraduate and graduate research assistants interviewed the participants in the Young Adult Offender Program regarding their social cognitive processing, individualistic-collectivistic tendencies, and personal growth/change since their commitment to the YAO program. The measures utilized to access these dimensions are described below. Each interview took between thirty minutes and one hour to complete. All data remained confidential and a unique identifying number was associated with each piece of data so that the identity of the offender was available to neither the research assistants nor the principal investigator.

Project Participants

All inmates in the YAO program were eligible for participation in this project. Interviews were not completed with inmates who were in the Restricted Housing Unit (RHU) during the time at which interviewing was conducted, although those inmates who were being "stepped down" from the RHU were offered the opportunity to participate. Overall, 156 young adult offenders (all male) participated in the current project. Three inmates declined to participate in initial interviews, 2 inmates declined to participate in follow-up interviews, and another 5 inmates were unable to fully complete their interviews due to time or work constraints.

Interviewing began with 93 inmates in April of 2001, three months after the new SCI Pine Grove facility began admitting young adult offenders (see Figure 2). In October of 2001, 55% of the initial interviewees (n=51) were available for follow-up interviews and initial interviews were conducted with a group (n=37) of newly admitted inmates. In March of 2002, follow-up interviews were completed with 84% of this second group of inmates (n=31) and initial interviews were conducted with a small group of newly admitted inmates (n=26).

Figure 2. Inmate interview timeline



Inmates ranged in age from 15 to 21 (see Figure 3), with an average age of 18.2 years ($SD = 1.1$). The ethnic makeup of the group was as follows: 18% Caucasian, 66% Black, 10% Hispanic, 1% Asian, and 5% Other (see Figure 4). At interview time, the inmates' average number of months since commitment was 18.1 ($SD = 14.7$), with a range from one to 66 months.

Figure 3. Age of study participants

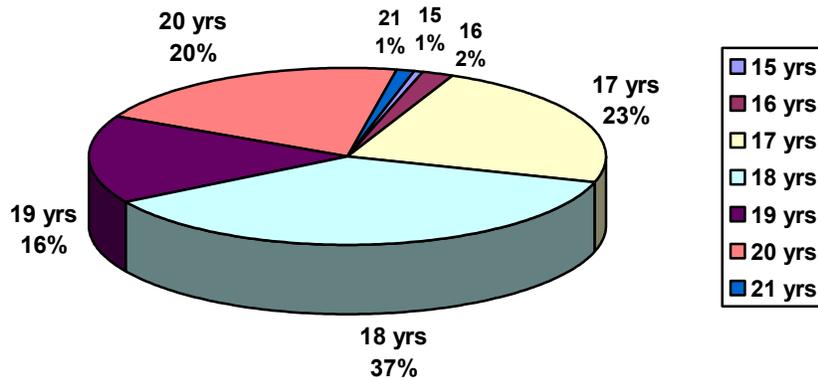
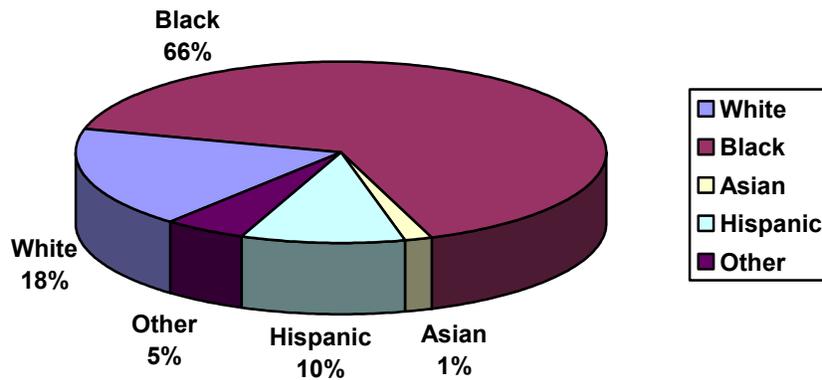


Figure 4. Ethnicity of study participants



Measures of Social Cognition

The main focus of this project was on accessing the social cognitive skills of the participants in the study. As is standard in the field, this assessment of social cognition was achieved through interview techniques in which the inmates were asked to respond to various questions regarding the thought processes utilized in social interaction. The framework highlighted in this project is the social information-processing model developed by Dodge and his colleagues (e.g., Crick & Dodge, 1994). Within this model, five stages of cognitive processing and a sixth behavioral step are outlined (see Figure 1), three of which were directly measured in the present study. The instruments utilized in this study are standard in the literature and have demonstrated adequate psychometric properties.

Measure 1: Interpretation of Social Cues – In general, studies of incarcerated and non-institutionalized youth indicate that aggressive adolescents selectively attend to aggressive social cues and have more difficulty diverting their attention away from aggressive cues than their nonaggressive counterparts (see Crick & Dodge, 1994). This tendency is termed “*hostile attribution bias*”, and is measured by presenting participants with ambiguous vignettes in which they are asked to interpret the antagonist’s social intention (Dodge, Pettit, McClaskey, & Brown, 1986; Dodge, Price, Bachorowski, & Newman, 1990; Lochman & Dodge, 1994). An example of one of the vignettes is presented below:

Imagine that you are sitting in the Food Court at the mall. You look up and see some guy coming over to your table with a can of coke. You turn around to eat your lunch, and the next thing that happens is that the guy spills coke all over your back. The coke gets your shirt all wet.

The inmate is then asked, on a scale of 1 to 5, whether he thinks the antagonist spilled the coke intentionally to be mean or whether it was an accident. The *hostile attribution bias* is calculated by subtracting the inmate’s total endorsement of the “accidental” causes from the total endorsement of “hostile” intentions across the four vignettes.

Measure 2: Social Goals – This stage of the social information-processing model is based on the idea that goals in specific social situations motivate behavior in those situations. Aggressive youth have generally been reported to have goals of dominance and revenge and are also influenced in their goals by reputation and status more than nonaggressive youth (Lochman, Wayland, & White, 1993).

Social goals have been examined among aggressive youth via the same vignettes used to measure hostile attribution bias. After asking the participant what attributions they would make for the hypothetical peer’s behavior, they are then asked, on a scale of 1 to 5, to endorse how likely they would be to: 1) want to get back at the antagonist (*revenge* goal), 2) show the antagonist that they are “in charge” (*dominance* goal), 3) want to get along with the antagonist (*affiliation* goal), and 4) want to get away from the situation (*avoidance* goal). Total *revenge*, *dominance*, *affiliation* and *avoidance* social goal scores are calculated by averaging the participant’s responses to these items across the four vignettes.

Measure 3: Outcome Expectancies – One of the final cognitive factors contributing to the selection of a behavioral response is the individual’s expectation of the outcome associated with that response. For example, even if an adolescent has interpreted a social partner’s behavior as having hostile intentions and they also hold dominance or revenge goals, if they do not believe that they can expect positive outcomes to their own aggressive retaliation, they will probably choose a non-aggressive response to the social situation. Research has shown that aggressive adolescents tend toward confidence in reaching their goals through both verbally and physically aggressive means (Perry, Perry, & Rasmussen, 1986).

Items from the Outcome Expectancies Questionnaire (Perry, Perry, & Rasmussen, 1993) tapping expectations regarding the use of verbal and physical aggression were used to assess the inmates’ expected social impact. A sample item from the Outcome Expectancies Questionnaire is presented below:

You just made a basket in the game. A guy on the other team begins angrily hitting you on the arm. You hit back as hard as you can. What do you think he will do now?

Very Sure	Pretty Sure					Pretty Sure	Very Sure
<input type="checkbox"/>	<input type="checkbox"/>	He won't hit you again.	OR	He will hit you again.	<input type="checkbox"/>	<input type="checkbox"/>	

Responses are coded from 1 to 4, depending on the degree of certainty with which the respondent believes aggression will remedy the situation. These scores are then summed and averaged across items tapping the effectiveness of physical aggression and items tapping the effectiveness of verbal aggression.

Measures of Community Thinking

In addition to measuring social cognition directly, several other measures of interpersonal functioning were collected for the purposes of examining change in patterns of thinking relevant to interaction within the community. Although not specifically tied to the cognitive stages of the social information-processing model, these measures were chosen for their relevance to adjustment within the therapeutic community setting.

Measure 4 – Individualism/Collectivism: Based on the work of Triandis and his colleagues (Triandis, 1995; Hui & Triandis, 1986; Singelis et al., 1995), the Individualism-Collectivism Scale (Hui & Triandis, 1986) was utilized in order to examine change associated with community thought. This measure asks respondents to endorse, on a five-point scale, how important various values are to them. Examples of *individualistic* items are: “living a pleasurable life”, “having other people recognize me”, “being ambitious”, and “being independent.” Examples of *collectivistic* items are: “being helpful”, “having social justice”, “being forgiving”, and “having true friends.” Total *individualistic* and *collectivistic* scores are calculated by averaging response choices to items within each subscale.

Measure 5 – Empathic Concern and Perspective Taking: The empathic concern and perspective taking subscales of the Interpersonal Reactivity Index (IRI; Davis, 1983) were utilized in order to examine change. The IRI asks respondents to indicate on a five-point scale how much they identify with specific empathic behaviors. For example, one question on the *empathic concern* subscale asks the respondent to rate how true the following statement is for him: “I often have tender and concerned feelings for people less fortunate than me.” A separate question on the *perspective taking* subscale asks how true the following statement is for the respondent: “Before criticizing somebody, I try to imagine how I would feel in his place.” Total *empathic concern* and *perspective taking* scores are calculated by averaging response choices within each subscale.

Measure of Personal Growth

A final measure was included in the follow-up interviews as a way of accessing the inmates' impression of their own personal growth and change since commitment. This measure was not included in the initial interview largely because the items tapped were not expected to have changed within the 20-week period. The measure was designed to provide a broad overview of inmate self-perception of change during the entire period of incarceration.

Measure 6 – Personal Growth/Change: Following Kupersmidt (Kupersmidt & Shahinfar, 2000; Shahinfar & Kupersmidt, 1999) and her work with tracking individual impression of personal growth/change among delinquent youth in North Carolina, this measure accesses individual accounts of change in three broad areas: 1) *academic*, 2) *interpersonal functioning*, and 3) *self*. The items that comprise the *academic* subscale include a measure of how well and how much the inmate has read since commitment. The items comprising the *interpersonal* subscale reflect how well the inmate gets along with peers, family, teaching staff and counselors since commitment, how well the inmate follows directions, how respectfully he speaks to others, and the number of fights in which the inmate has participated since incarceration. The items reflected in the *self* subscale revolve around inmate self-esteem, temper, thinking before acting, thinking about hurting others, and planning for the future. Each item is rated on a scale of 1 to 5, with a ranking of 1 reflecting an issue that is now much worse than before incarceration and 5 reflecting an issue that has been much improved since incarceration. Subscale scores are calculated by averaging across items included within the *academic*, *interpersonal functioning*, and *self* scales.

III: RESULTS AND DISCUSSION

As mentioned earlier, there were three main project goals at the heart of this study: 1) to evaluate the feasibility of measuring and tracking social cognitive change among Pennsylvania's YAO population; 2) to examine whether differences in social cognitive skills and community thinking were linked to inmate progression through the YAO program's system of institutional promotion; and 3) to evaluate individual change in inmate social cognitive skill, community thinking and self-assessed personal growth over time. The findings regarding these three goals are addressed separately below:

Evaluation of the feasibility of measuring and tracking social cognitive change among YAOs

Although each of the instruments utilized in this study has been tested in the literature and proven useful and psychometrically sound with varied adolescent populations, it was unclear at the outset of this study how well young adult offenders – a relatively new and distinct population in Corrections – would respond to the instruments. Not only are young adult offenders unique in that their criminal records generally represent more serious offenses than those sentenced in juvenile court, but we found that the average age of the inmates in this study (18.2 years) was older than generally seen among juvenile populations (which, in most states, includes only those *under* the age of 18).

Two steps were taken in order to validate the use of these instruments for the YAO population. First, each measure was examined for response distribution (i.e., Did inmates utilize all points of the scales? Was there variability in inmate response choice?) and found to be adequate. This indicated that the YAOs were distinguishing among their responses to the questions and were not demonstrating notable patterns of response bias. Second, the various subscales of each measure were evaluated for internal consistency (i.e., alpha scores were calculated) and found to be adequate. This indicated that the YAOs were responding similarly to items which tapped particular domains (e.g., individualistic tendencies) and that these responses differed from those given to questions tapping other domains (e.g., collectivistic tendencies) within the same instrument. These findings suggested that the measures chosen for this study were psychometrically sound for use with the YAO population.

One question which is often asked when using self-report instruments with a criminal population is how reliable such methodology can be considering, for example, the widespread diagnosis of antisocial personality disorder among inmates. Although there is no simple answer to this question, it is important to consider that the measures of interest in this study were cognitive factors – issues which can only be addressed by asking the individual what he thinks or how he feels. As such, the only way to access social cognitions or community attitudes is to ask the individual to offer self-report. While not necessarily a limitation, it is obviously a point of interest that should be mentioned when evaluating this report. One way of handling this issue within questionnaire construction is to ensure that some of the similar items within subscales are

reverse scored, such that an internal check of inconsistent responding is available to the researcher. While this does not address the actual truth in responding, it does provide a check for inconsistent response choice that may, in turn, raise a red flag regarding veracity of self-report. None of the inmates interviewed for this project displayed obvious patterns of inconsistent report.

Examination of whether differences in social cognitive skills and community thinking were linked to inmate progression through the YAO program

In order to address the question of relations between cognition and phase achievement, analyses of variance (ANOVAs) were performed on each of the social cognitive and community thinking scores using inmate phase (entry-level thru Phase 5) as a factor. The intention was to assess whether there were differences in social cognitive skill or community thinking among inmates at different stages of advancement within the YAO program. We found no significant differences among phases for any of the measures of interest. In other words, inmates participating in the Leadership Development Phase of the program (LDP; entry level) were not significantly more or less likely than inmates who had achieved Phase 5 (highest stage in program) to endorse hostile attribution biases, aggressive/dominant social goals, positive outcome expectancies for aggression, etc. These findings suggest that advancement in social cognitive functioning is not necessarily tied in a linear fashion to advancement through the YAO program's phase system.

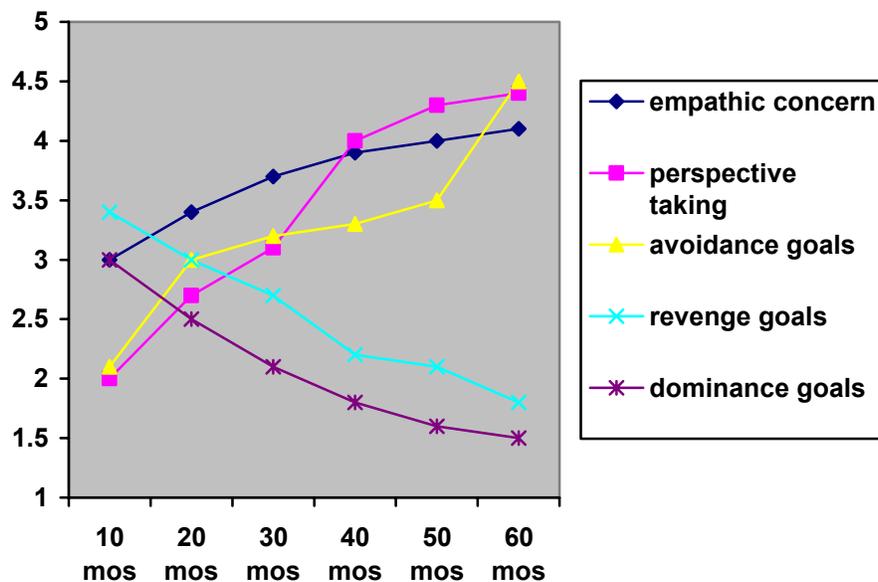
Although these findings are surprising at first glance, two critical points should be mentioned. First, it is important to note that the institution's therapeutic programming does not purport to correspond to skill development in specific aspects of the social information-processing model. Rather, development of social cognitive skill is intended to develop more organically through participation in the therapeutic community (YAO Program Procedures Manual, 2000). For example, an inmate's hostile attribution bias is not specifically addressed in training courses in the LDP, followed by specific programming to change social goals in Phase 1 and collectivistic training in Phase 2. Thus, the measures chosen for this study address concepts that are likely to be indirectly changed at various stages of programming, depending on those interactions and opportunities for growth available to the individual inmate at various points in the therapeutic community setting. As such, there is no specific prescription for how and when an individual inmate should achieve particular social cognitive advances. Therefore, it is not surprising that phase achievement was not directly linked to cognitive skill achievement.

Second, each inmate enters into the YAO program with a different baseline in terms of social cognitive skills. Because there is wide variability in social cognitive skill at the LDP Phase, it is not surprising that this wide variability in skill would continue through Phase 5. The true purpose of the YAO program is not necessarily to teach all inmates a particular set of skills at particular points in the program, but rather to improve each inmate's cognitive and behavioral functioning at the individual level. A more appropriate way to measure positive change, as described below, would thus appear to be to examine level of change within individual inmates over time.

Evaluation of individual change in inmate social cognitive skill, community thinking and self-assessed personal growth

In order to evaluate individual change within inmates across time, three analytical paths were followed. First, we tested whether time since commitment was related to the measures of interest using correlational analyses. In short, we found that the amount of time which an inmate had spent in the therapeutic community was significantly related to an increase in empathic concern, $r = .28$; $p < .05$, perspective taking, $r = .39$; $p < .01$, and avoidant social goals, $r = .26$; $p < .05$ (see Figure 5). Conversely, time since commitment was significantly related to a decrease in social goals revolving around revenge, $r = -.442$; $p < .01$, and dominance, $r = -.432$; $p < .01$ (see Figure 5). It should be noted at this point that with the exception of avoidant social goals, inmate age was also correlated with each of the above variables. As such, it is difficult to tell whether age or time since commitment was most directly related to the cognitive change. In fact, age and time since commitment were themselves highly correlated in this sample, $r = .73$; $p < .01$. Partial correlations showed that the relations between age and the variables of interest were removed when controlling for time since commitment, thus suggesting that time since commitment may have exercised a slightly stronger correlation with the cognitive skill and community thinking variables than age. Further exploration of this issue could be achieved in future studies with larger sample sizes and more demographic information.

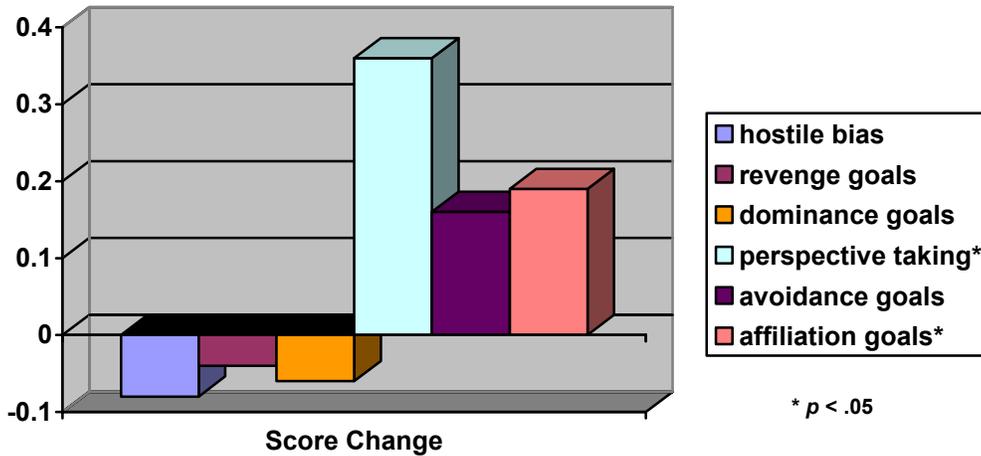
Figure 5. Associations between time since commitment and social cognitive skill and community thinking scores



The second analytical plan for exploring individual change was achieved by performing a series of paired samples t-tests on the corresponding scores from the initial and follow-up interviews. Although most scores were significantly related, only two showed a significant difference between initial and follow-up scores. There was a significant increase from initial to follow-up interview in inmates' perspective taking, $t = -3.3$, $p < .05$ and affiliative social goals, $t = -2.3$, $p < .05$ (see Figure 6). Although not significant changes, the other social cognitive and

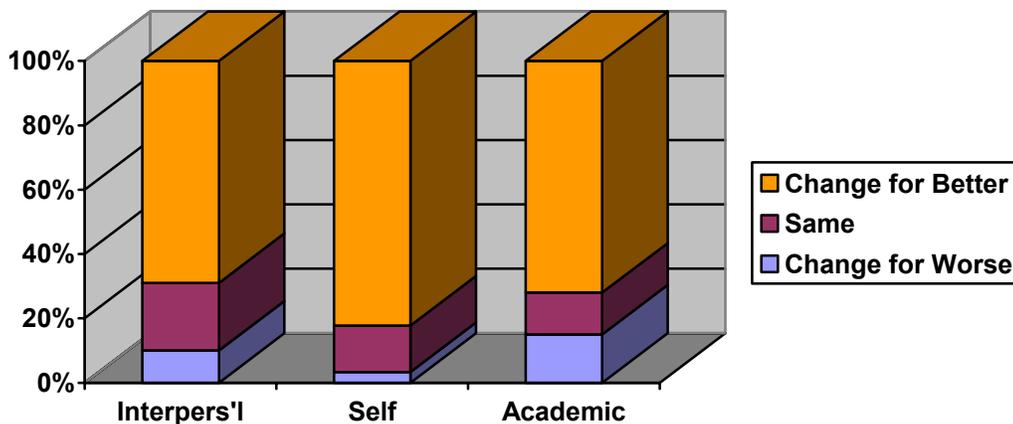
community thinking variables also demonstrated change in the expected direction during the interval between interviews. More specifically, *hostile bias*, *revenge goals*, and *dominance goals* decreased and *avoidance goals* increased between interviews. These changes are depicted in Figure 6.

Figure 6. Change in social cognitive and community thinking scores from initial interview to follow-up interview



The final analysis of change in this study involved examination of the inmates' self-assessed personal growth. As described earlier, the measure of personal growth was given at the follow-up interview only and asked inmates to describe change in three areas: 1) *academic*, 2) *interpersonal functioning*, and 3) *self*. As depicted in Figure 7, inmates expressed a near-universal endorsement of positive change in the areas of academics, interpersonal functioning, and self-growth since beginning the YAO program.

Figure 7. Self-assessed personal growth as a function of YAO program participation



IV. CONCLUSIONS

It is well understood that social cognitions share an important role in the production of social behavior. Over the past several decades, many researchers have noted the importance of cognition in both producing and maintaining aggressive behavior patterns (e.g., Bandura, 1973; Bandura, 1986; Crick & Dodge, 1994). While the prison system is well equipped to track inmate aggressive behavior through measures such as the frequency and severity of institutional infractions, the tracking of cognitive changes that are thought to underlie such aggressive behaviors has not been traditionally practiced. The existing evidence suggests that although institutional behavior is a potent indicator of institutional adjustment, it may not be the best predictor of post-incarceration behavior (MacKenzie, 1994). Understanding how an individual thinks, however, can help in both predicting and producing long-term change in behavior patterns.

The main purpose of this project was to track changes in the social cognitive patterns of participants in Pennsylvania's highly specialized Young Adult Offender Program. In order to achieve this purpose, three underlying goals were established. The first goal was to confirm the suitability of currently available social cognitive and community thinking measures for the YAO population. Careful review of the data indicated that the available measures were appropriate for use with YAOs. The second goal was to determine whether change in social cognitions co-varied with advancement through the institution's system of promotion. Data analyses failed to support the notion of a linear relationship between phase achievement and social cognitive skill development. These findings suggested that variability in baseline cognitive skills and individual change over time may be more important to assess than change associated with phase advancement.

The third goal was to track individual change in inmate cognitions and community thinking over time. Most notably, we found that time since commitment appeared to play a role in cognitive skill development and positive community thinking. We also found statistically significant increases in perspective taking and affiliative social goals during the interval between initial and follow-up interviews. Although not statistically significant, we found other changes in the expected directions during the time between first and second interviews: namely, decrements in hostile attribution bias, revenge goals and dominance goals, and an increase in avoidance goals. When asked about their own assessment of personal growth, a vast majority of inmates reported improvement in the arenas of academic, interpersonal, and self-development since beginning their participation in the YAO program.

These findings offer support for the idea that the YAO program is demonstrating positive impact in changing inmate social cognitions, community thinking and personal growth. Although the exact mechanism of this change deserves more attention, the message of change is clear. The question remains as to how to utilize this information. Most notably, these findings suggest the utility of establishing an assessment of baseline social cognitive functioning of individual inmates upon entry into the program, with the end goal of tracking the program's full impact on the development of social cognitive skills and other thought patterns supportive of positive

community participation. Linking these cognitive reports with the behavioral, academic and work tracking methods already in place within the institution would allow for a fuller picture of the inmate's functioning. This picture could then, in turn, help us move beyond strict behavioral monitoring toward the goals of understanding and predicting inmate behavior.

A second extension of these findings could be applied to the realm of therapeutic intervention. As mentioned earlier, the YAO program does not currently target specific aspects of social information-processing in its therapeutic goals. It is, rather, geared toward a more global change in community and social attitudes. This is appropriate considering the wide range of social cognitive skills and deficits each inmate brings with him into the program. By linking assessment of inmate cognitions to inmate behavior, however, clear plans for addressing specific inmate social cognitive deficits could be achieved. Such plans could be tailored to meet the individual needs of inmates and could be linked to treatment planning.

The third and perhaps most important implication of this work revolves around the possibility of better understanding how the development of social cognitive skills will serve the inmate upon release back into the community. For example, the question of whether and how the inmate translates cognitive lessons from the therapeutic community into the community at large is an important one. Furthermore, it could be useful to know whether inmates who have experienced little social cognitive change during incarceration are more likely to revert to old behavior patterns and, thus, recidivate. Such tracking could help us to not only manage post-release behavior, but to better understand and predict how participation in the YAO program impacts post-release outcome.

V. REFERENCES

- Bandura, A. (1973). Aggression: A social learning theory analysis. New York: Prentice Hall.
- Bandura, A. (1986). Social foundations of thought and action. Englewood Cliffs, NJ: Prentice Hall.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. Psychological Bulletin, *115*(1), 74-101.
- Davis, M.H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. Journal of Personality and Social Psychology, *44*, 113-126.
- Dodge, K.A. (1980). Social cognition and children's aggressive behavior. Child Development, *51*, 162-170.
- Dodge, K.A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), The Minnesota symposium on child psychology, Vol. 18. Cognitive perspectives on children's social and behavioral development (pp. 77-125). Hillsdale, NJ: Erlbaum.
- Dodge, K.A., Bates, J.E., & Pettit, G.A. (1990). Mechanisms in the cycle of violence. Science, *250*, 1678-1683.
- Dodge, K.A., Lochman, J.E., Harnish, J.D., Bates, J.E., & Pettit, G.S. (1997). Reactive and proactive aggression in school children and psychiatrically impaired chronically assaultive youth. Journal of Abnormal Psychology, *106*, 37-51.
- Dodge, K. A., Pettit, G. S., McClaskey, C. L., & Brown, M. M. (1986). Social competence in children. Monographs of the Society for Research in Child Development, *51*(2), 1-85.
- Dodge, K. A., Price, J. M., Bachorowski, J.A., & Newman, J. P. (1990). Hostile attributional biases in severely aggressive adolescents. Journal of Abnormal Psychology, *99*(4), 385-392.
- Guerra, N.G., & Slaby, R.G. (1990). Cognitive mediators of aggression in adolescent offenders: 2. Intervention. Developmental Psychology, *26*, 269-277.
- Huesmann, L.R., Guerra, N.G., Zelli, A., & Miller, L. (1992). Differing normative beliefs about aggression for boys and girls. In K. Bjorkqvist & P. Niemela (Eds.), Of mice and women: Aspects of female aggression (pp. 77-87). New York: Academic Press.

- Hui, C.H., Triandis, H.C. (1986). Individualism-collectivism: A study of cross-cultural researchers. Journal of Cross Cultural Psychology, 17, 225-248.
- Kupersmidt, J.B. & Shahinfar, A. (2000, February). Exposure to violence and coping with stress among incarcerated adolescents. Hampton University Research Forum, Hampton, VA.
- Lipsey, M.W. (1999). Can intervention rehabilitate serious delinquents? Annals of the American Academy of Political and Social Science, 564, 142-166.
- Lochman, J. E., & Dodge, K. A. (1994). Social-cognitive processes of severely violent, moderately aggressive, and nonaggressive boys. Journal of Consulting & Clinical Psychology, 62(2), 366-374.
- Lochman, J. E., Wayland, K. K., & White, K. J. (1993). Social goals: Relationship to adolescent adjustment and to social problem solving. Journal of Abnormal Child Psychology, 21(2), 135-151.
- Loeber, R., & Farrington, D.P. (1998). Serious and violent juvenile offenders: Risk factors and successful interventions. Thousand Oaks: Sage.
- MacKenzie, D.L. (1994). Bootcamps: A National Assessment. Overcrowded Times: Solving the Prison Problem, 5, no. 4.
- Perry, D. G., Perry, L. C., & Rasmussen, P. (1986). Cognitive social learning mediators of aggression. Child Development, 57(2), 700-711.
- Shahinfar, A., & Kupersmidt, J.B. (1999, April). Social perceptions and goals among incarcerated adolescents exposed to community violence. In A. Shahinfar & J.B. Kupersmidt (Chairs), Community violence and its relation to children's cognitions about their social worlds. Sixty-fourth Biennial Meeting of the Society for Research in Child Development, Albuquerque, New Mexico.
- Shahinfar, A., Kupersmidt, J.B., & Matza, L.S. (2001). The relation between exposure to violence and social information-processing among incarcerated adolescents. Journal of Abnormal Psychology, 110, 136-141.
- Singelis, T.M., Triandis, H.C., Bhawuk, D., Gelfand, M.J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. Cross Cultural Research: The Journal of Comparative Social Science, 29, 240-275.
- Slaby, R.G., & Guerra, N.G. (1988). Cognitive mediators of aggression in adolescent offenders: I. Assessment. Developmental Psychology, 24, 580-588.
- Triandis, H.C. (1995). Individualism and collectivism. Champaign, IL: University of Illinois.

Young Adult Offenders Program Procedures Manual – SCI Pine Grove (2000).
Harrisburg, PA: Commonwealth of Pennsylvania, Department of Corrections.