

Findings from this work indicate that individuals in the Pathways sample do tend to adjust their risk perceptions upward when they are arrested, by about 5% per arrest on average. That is, when a crime is committed and results in an arrest, individuals increase their ratings of perceived risk. This is a necessary condition for deterrence. However, when offending is undetected or avoids a legal reaction, individuals actually lower their perceptions of risk. Furthermore, they once again find evidence for a “ceiling effect”; the effect of an arrest on updating perceptions of risk and reward is significantly weaker for more experienced offenders. It seems that individuals who have a lot of criminal experiences become quite certain about their true arrest rate and eventually reach a point where they no longer update their risk perceptions based on new experiences. Finally, arrests for one type of crime (aggressive versus income-generating) appear to affect only perceptions for that particular type of crime, rather than all crimes.

So what does this all mean so far?

- From a policy perspective, this work seems to have some important implications:
- Even within a group of serious, active offenders, swift and certain punishment can play an important role in deterring future crime.
 - However, these factors do not operate in the same way for all offenders...policies that assume a “one size fits all” approach will fail for some offenders
 - Frequency of self reported offending seems to be an important way to sort groups which may be more or less “deterable”
 - Arresting youth before they have gained a sizable reservoir of offenses seems to have the greatest potential to prompt perceptual changes that may curtail future offending
 - However, those perception changes are greatest in relation to the crime associated with the arrest (e.g. perceptions about the risk for getting caught for robbery are likely to increase when the individual has actually been arrested for robbery). Policies that target

specific types of offending may be marginally more effective at curbing the targeted offenses than general policies aimed at reducing crime levels more broadly.

The study investigators have uncovered some important relationships between offending and perceptions of risk and rewards of crime in a sample of serious adolescent offenders and these findings are a contribution in and of themselves. However, this work also sets the stage for future investigations about a variety of questions. Is there an identifiable threshold of offending frequency above which arrests no longer have an impact on perceptions? Are changes in risk perceptions associated with subsequent changes in behavior? The study investigators have plans to continue to investigate these questions and others. Check our study website (www.pathwaysstudy.pitt.edu) for future publications in this area.

This brief summary is based on the following articles:

Anwar, S. and Loughran, T. (in press). Testing a Bayesian learning theory of deterrence among serious juveniles offenders. *Criminology*. (expected publication in May 2011).

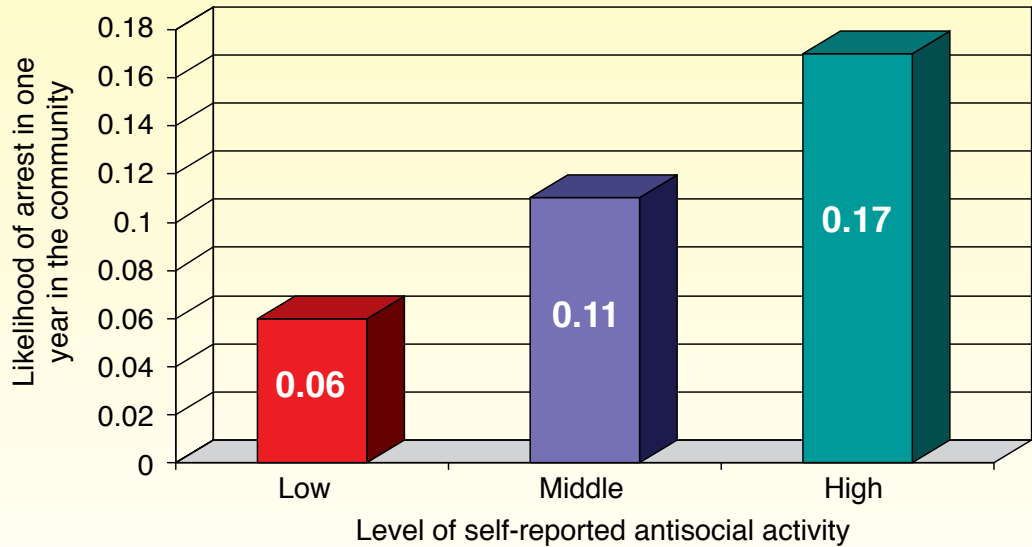
Loughran, T., Piquero, A. R., Fagan, J., & Mulvey, E.P. (in press). Differential Deterrence: Studying heterogeneity and changes in perceptual deterrence among serious youthful offenders. *Crime and Delinquency*.

The list of published articles that use the Pathways Data continues to expand. The study investigators have generated well over 30 articles covering a wide range of topics. We encourage you to visit the study website at www.pathwaysstudy.pitt.edu to view the list of publications. Use the “contact us” page to request a copy of any of the listed articles.

Coordinating Center
University of Pittsburgh Medical Center
3811 O'Hara Street
Pittsburgh, PA 15213

Phone: 412-647-4760
Fax: 412-647-4751

Likelihood of Arrest Per Year of Time in the Community by Level of Self-Reported Antisocial Activity at Baseline



Groups are based on the self-reported offending variety score at baseline for the full Pathways sample. The variety score is the number of different types of crime the youth endorses from among 22 serious offenses.



VOLUME 16

**Research
on Pathways
to Desistance**

Do All Serious Offenders Have the Same Views About Their Risk and Rewards of Crime?

There are a number of reasons why society locks up adolescent offenders who commit serious crimes. Certainly, there is some hope that an institutional placement experience might provide some rehabilitation and opportunities to develop skills and competencies. Beyond that, though, there is the belief that removing someone from the community and making them conform to institutional restrictions demonstrates an appropriate societal response to harm done by the crime. There must be some appropriate retribution; people must be held accountable. Also, there is a concern that individuals who offend seriously present a continuing danger to the community, and locking them up keeps them from committing future crimes. There is an incapacitation effect. Finally, we hope that the experience we will keep the offender from committing future crime (specific deterrence), and that people who see them punished will think twice before they commit the crime the individual was punished for (general deterrence). Deterrence is a foundational element in the rationale for, and mission of, the justice system.



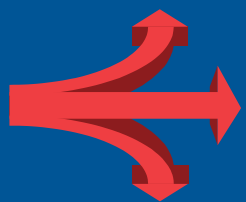
Yet we really don’t fully understand how deterrence operates for certain types of offenders. In particular, we know very little about how the experience of punishment effects the perception of adolescent offenders.

Background

There is a vast body of classic criminological literature regarding theories of deterrence (Beccaria, 1764; Zimring and Hawkins, 1973; Andenaes, 1974). Briefly, deterrence is rooted in the belief that when criminal sanctions are perceived to be certain, severe and swift, criminal activity will be reduced because the risk and costs of sanctions will be too high. Existing theories indicate that this sequela operates at two levels: for society as a whole (general deterrence) and for individuals (specific deterrence). General deterrence focuses on the prevention of crime through laws and enforcement strategies that will maintain the broad (society-level)

understanding that criminal activity will lead to punishment. Targeted enforcement strategies (e.g. gang task forces) often contribute to a community perception that crime does not pay. On the other hand,

Continued Inside



PATHWAYS PERSONNEL

COORDINATING CENTER:

Edward P. Mulvey, Ph.D.

Elizabeth Cauffman, Ph.D.

Carol Schubert, M.P.H.

University of Pittsburgh

Medical Center

3811 O'Hara Street

Pittsburgh, PA 15213

Phone: (412) 647-4760

Fax: (412) 647-4751

PHILADELPHIA SITE:

Laurence Steinberg, Ph.D.

Sonia Cota-Robles, J.D., Ph.D.

Temple University

Department of Psychology

Philadelphia, PA 19122

Phone: (215) 204-4470

Fax: (215) 204-1286

PHOENIX SITE:

Laurie Chassin, Ph.D.

George Knight, Ph.D.

Sandra Losoya, Ph.D.

Arizona State University

Department of Psychology

Box 871104

Tempe, AZ 87287

Phone: (480) 965-5505

Fax: (480) 727-7294

specific deterrence (the focus of this newsletter) focuses on preventing individuals from engaging in future crime by making clear the connection between their own criminal activity and negative consequences; the idea being that the individual will refrain from future crime simply because it isn't worth the risk or the rewards involved.

Clearly, some individuals don't apply this seemingly logical assessment of a criminal opportunity. As evidenced by a sizable number of repeat-offenders who often use the "revolving door" of jails and prisons, there seems to be a diverse set of processes going on for some people that produce a different response to a criminal opportunity. Because of maturity differences, cognitive impairment, prior experiences, or a host of other possible factors, some individuals just "don't get it" when they are punished for criminal activity.

In this article, we will consider three basic, but important, questions regarding how juvenile offenders frame issues related to deterrence. Based on analyses of data obtained from subjects in the Pathways to Desistance study (N = 1,354), we will address these questions:

1. Do perceptions of the risks and rewards of crime differ based on level of offending frequency? In other words, do people who do more crime just see less risk and get more reward?

2. Do these perceptions change over time?

3. Does the experience of an arrest prompt change in these perceptions?

The Pathways to Desistance study provides an opportunity to study these issues in a way that very few other research projects have ever had. The study focuses on active, serious offenders, while previous studies have largely focused on community samples where active and serious offenders are either completely excluded or at best underrepresented. Also, it includes recent insights from developmental/life-course criminology by considering changes in perceptions of "sanction threat" within youth over age and time. It follows the same individuals as they move through an influential developmental period regarding their assessment of risk and reward.

The Pathways study follow-up interviews included a series of questions regarding the youth's perceptions of their chances for getting caught and arrested for a series of crimes (e.g. stabbing someone), as well as how much of a "thrill" or "rush" they received from a number of different activities (e.g. robbery with a gun). Youth were also asked to self-report their involvement in 22 antisocial activities at each interview. (See the Pathways website: www.pathwaysstudy.pitt.edu for a description of and references for these measures.) Using the answers from the baseline through the 3-year interview (7 different interviews), the investigators first looked to see how the perceptions differed by "level" (high, medium or low frequency) of self reported offending. They then looked at how perceptions shifted over time conditional on offending level at baseline. In other words, the analyses explored differences in perceptions at baseline based on prior offending experiences, and then, if the level of prior offending (high, medium or low frequency) was associated with different patterns of change in perceptions over time? Finally, the analyses then looked at whether the perceptions shifted as the result of an arrest occurring during a particular time period.

Are there any differences in perceptions at baseline based on offending experience?

The investigators predicted that there would be differences in perceptions of risk and reward of crime based on the frequency of offending. That is, they thought that individuals who had only limited prior offending (were in the low-frequency offending group) would have fewer experiences upon which to base their perceptions and would assume that the risks of offending were rather high. On the other hand, it seemed those with higher rates of offending would have more experience, and would probably have already found out that the chance of getting caught was rather low. Indeed, this intuition is confirmed with the Pathways sample. As compared to those in the middle frequency group, those with lower prior offending perceived significantly more risk and lower reward from crime, while those in the highest frequency group perceived significantly less risk and more reward. These group differences were not explained by differences in level of maturity or the youths' age.

Is the level of offending (high, medium or low frequency) at baseline associated with patterns of change in perceptions across time?

Although the group differences in perceptions at baseline did not appear to be related to maturity or age, the investigators wanted to see if there were shifts in perceptions across time that would eventually eliminate or decrease these differences. Mean scores for risk and reward within each offending group (high, medium or low frequency) were plotted across the six interviews that occurred in the three years after the baseline interview. At this point, youth in the sample are moving from an average age of 16 to an average age of 19.

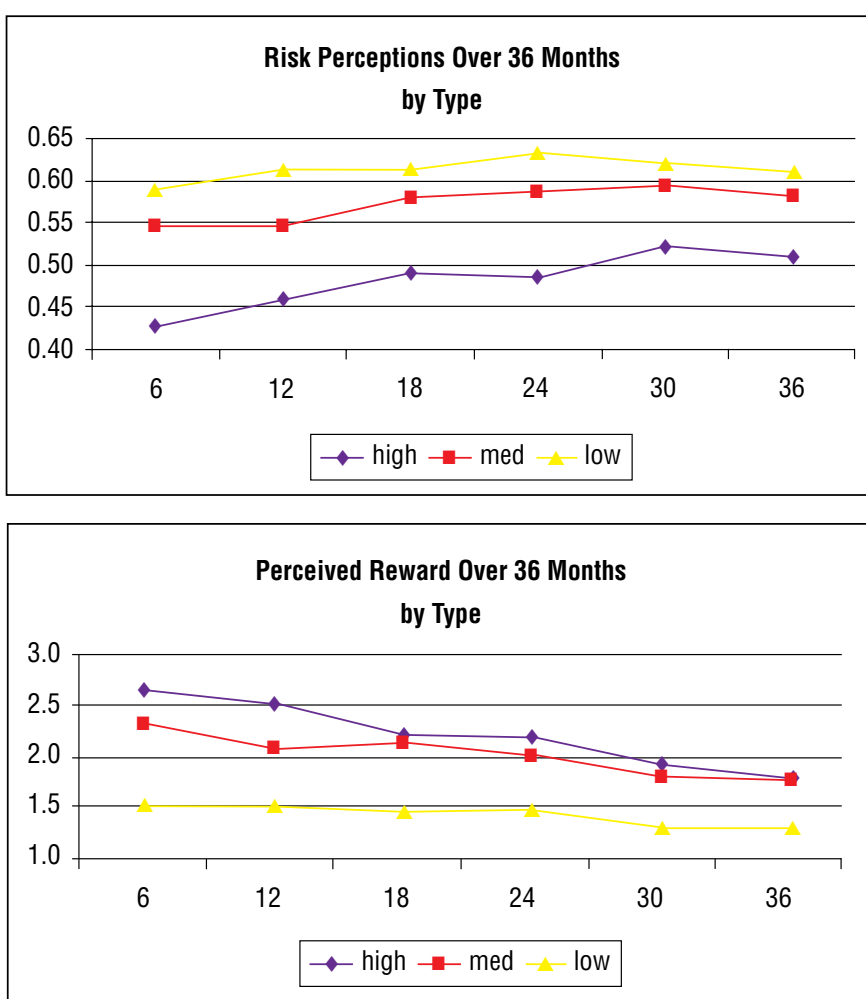
As seen in Figure 1, the average scores for

perceived risk and rewards are fairly flat overall, with only a slight increase in perceived risk and a slight decrease in perceived rewards over time. These patterns are important inasmuch as they indicate that with age comes a more logical (or rational) assessment of a crime opportunity that is not contingent on offending level.

This is not to say, however, that offending level is not related to changes in perceptions over time. Figure 1 also illustrates some other notable patterns related to offending level.

- Even after the passage of three years, the high

FIGURE 1



offending group still perceives less risk than either the medium or the low offending group.

- The high and medium offending frequency groups both show decreasing perceived reward from crime as they age, but they still do not approach the lowest level of rewards perceived by the infrequent offenders.

The Pathways investigators suggest that some of these patterns may be demonstrating a potential "ceiling" and "floor" for perceptions. Given that many of the individuals in the low offending group do not re-offend over the 3-year period, it appears that they may have reached a stable "floor" of perceived benefit from crime and hit a "ceiling" in perceived risk, as evidenced by their flat risk pattern. Their level of perceived risk is as high as it needs to be to keep them from offending. The high offending group may have also reached the "floor" of their perceived risk given their lack of change over time. Their level of perceived risk may not be able to go any lower, based on their prior experiences.

This phenomenon may have policy relevance. If it takes a certain level of perceived risk or reward to keep from offending, some individuals may never be operating near that value, if their floor or ceiling is much higher or lower. This thus suggests that certain types of offenders may be more "deterable" than others. If deterrence is rooted in perceptions of risk and cost (that presumably change with each new situations) and crime opportunities do not produce fluctuations in these perceptions for some offenders (they've hit their floor or ceiling), then deterrence may be out of the equation for decisions about continued offending for some offenders.

- So far, this summary indicates that there is a significant amount of heterogeneity in the realm of perceived risk and rewards from crime (which the investigator call "differential deterrence") and that, on average, within this group of serious offenders there is little change in these perception over the 3-year period following the baseline interview.

But the story doesn't stop there.....

Even though the group mean scores for perceptions of risk and reward appear to be flat over time for the groups of low, moderate, and highly experienced offenders, we know that not everyone in the sample stays at exactly the average level for the group. "Behind the scenes," there are individuals who fluctuate around that mean over the different time points. Some of these individuals do indeed

have changes in their perceptions, with some increasing and others decreasing in their assessment of risk and reward. So the study investigators looked further to see if they could understand more about what might produce changes in perceptions. Referring back to one of the basic tenets of deterrence theory, the investigators looked to see if an arrest (a swift sanction) would be powerful enough to promote a shift in perceptions.

Does an arrest influence perceptions of risk in a sample of active offenders?

Anwar and Loughran (in press) explored the issue of whether adolescent offenders update their subjective perceptions of risk as they accumulate additional information about both offending and arrest. Their model to test this was based on the concept of Bayesian learning theory. This is simply the idea that prior beliefs (in this case, the risk of being detected for committing a crime or the reward received) will be adjusted, or updated, in response to newly observed information. In this context, "newly observed information" can be thought of as the experience of either being caught or not caught for doing something illegal during an observed time period. In other words, it is the ratio of the number of arrests to the number of self-reported crimes over a given time period. Thus, the question is whether or not an individual will have a change in his/her perception of risk if he/she commits a crime and is arrested. If a logical learning process is occurring, one would believe that a high ratio of self-reported crimes to number of arrests (i.e., not much self reported crime but lots of arrests) would lead to an increased perception of risk whereas a low ratio (i.e. the individual commits a lot of crimes for which he/she is not arrested) may not produce a change or may lower the risk perception. The investigators performed these analysis by crime type (i.e. aggressive versus income-generating crime) to determine if the risk perceptions about specific crimes (e.g. "how likely is it that you'd be caught and arrested for committing armed robbery") respond to the individual's experiences committing those crimes during the follow up periods.