OPTIMISTIC BIAS AND INMATES

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The study sought to extend the optimistic bias literature by documenting the phenomenon among perpetrators of crime. The theory originated from health psychology and is primarily used in health contexts. While a number of recent studies have documented optimistic bias among crime victims, the current study is the first to document the phenomenon among perpetrators. A small-scale survey of county jail inmates incarcerated for drug-related offenses, property-related offenses, and violent offenses ($N = 60$) found optimistic bias emerged for all three types of offenders. Participants were optimistic about not getting caught for the offense they were currently serving time and even more optimistic about not being incarcerated again in the future. Predictors of optimistic bias included self-esteem, self-efficacy, and marital status. These results suggest the need for different approaches to crime prevention and rehabilitation of inmates.

Keywords: optimistic bias; crime; incarceration

According to the Bureau of Justice Statistics (2013), approximately one-third of all adult inmates (nearly three-quarters of a million individuals) incarcerated in correctional facilities throughout the United States are housed in local jails. More individuals pass through jails each year than prisons. There are an estimated 11.7 million individuals annually admitted into local jails, versus 609,800 individuals annually admitted into state and federal prisons (Bureau of Justice Statistics, 2014). This transiency in jail populations is likely due to jails housing individuals who are at various stages within the system (i.e., pre-trial detainees, probation and parole violators, those awaiting transfer to different institutions or jurisdictions, individuals who are convicted but not yet sentenced, those sentenced for misdemeanor and felony offenses, and state or federal offenders contracted to serve their sentences in a jail) versus prisons, which house only sentenced felony offenders. Some inmates may stay in jail for a few hours, days or weeks, while others serve sentences typically up to one year.

Inmate populations provide a unique opportunity to study risk perception. Inmates have already taken risks by engaging in criminal activity and received negative consequences (arrest and detainment). The purpose of the study is to test a robust risk-perception theory, optimistic bias, among inmates to see if the phenomenon still occurs under unusual circumstances.

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OPTIMISTIC BIAS

In lay terms, optimistic bias (Weinstein, 1980) is the belief that bad things happen to other people. More than 30 years and over 100 published articles later, optimistic bias has been documented in a broad array of contexts: For instance, terminal cancer patients believe they are more likely to survive than other cancer patients (Smith & Longo, 2013); people who live in disaster areas believe they are less likely than others to be harmed (Greenberg, Dyen, & Elliott, 2013); adolescents believe they are less likely than peers to contract Sexually Transmitted Diseases (STDs) (Zeeb, Pottgen, & Zeeb, 2013). On its own, optimistic bias is an interesting phenomenon, but it often is paired with a behavioral component: People who exhibit optimistic bias are less likely to take precautions (Becker, Paton, Johnston, & Ronan, 2013; Ludwig & Zimper, 2013; Sesen, 2014); thus people who believe they are less likely to contract STDs are also less likely to practice safe sex. Likewise, people who believe they are less likely to be harmed in a hurricane are also less likely to evacuate. The current study explores whether the same principles apply to criminals.

Optimistic Bias and Crime

The concept of optimistic bias emerged from the health psychology literature in the 1980s. For the first two decades, it was exclusive to health contexts. More recently, a handful of studies have applied the concept to crime. For instance, a study of 1,600 adolescents (Chapin, Strimel, & Coleman, 2014) found optimistic bias about dating violence. Despite awareness of abusive relationships and community resources, adolescents believe they are less likely than peers to be abused by their boyfriends or girlfriends. Related contexts include burglary (Joshi & Carter, 2013), information security (Rhee, Ryu, & Kim, 2012), and sexual assault (Chapin & Pierce, 2012). These studies have two things in common: (1) In each case, optimistic bias was observed; (2) Each of the studies focus on perceptions of potential victims. The current study extends the literature to potential perpetrators.

Self-esteem

A number of predictors of optimistic bias have been explored over the years. One of the most promising is self-esteem. In the study of adolescents and dating violence, the strongest predictor of optimistic bias was self-esteem. Students who scored high on the Rosenberg Self-Esteem Scale exhibited higher degrees of optimistic bias (Chapin et al., 2014). The finding is consistent with earlier work in health contexts, such as pregnancy risk (Smith, Gerrard, & Gibbons, 1997) and suicide (Weinstein & Lachendro, 1982).

Self-efficacy

Self-efficacy has a similar relationship with optimistic bias: The more confident people are about their abilities, the more optimistic bias increases. This has been documented regarding people who live near earthquake fault lines (Becker et al., 2013), senior citizens with health issues (Warner, Schwarzer, Schuz, Wurm, & Tesch-Romer, 2012), even business students perceived financial risks of starting their own businesses (Sesen, 2014).

Demographics

Given theories about adolescent invulnerability, it makes sense that age would predict optimistic bias. This is not always the case. There are similar mixed results with other demographic variables. The study of adolescents and dating violence (Chapin et al., 2014) reported optimistic bias increased with age, but was unrelated to gender and race. Another study found adolescents believed they were less likely than peers to get cancer from smoking, but optimistic bias in this case was unrelated to age (Pepper, Cameron, Reiter, McRee, & Brewer, 2013). A study conducted in India and the United Kingdom found optimistic bias different by race/country for a number of future life events, including divorce, suicide, and burglary (Joshi & Carter, 2013). A study about optimistic bias and sexual assault found men exhibited more optimistic bias than women; optimistic bias increased with age, but was unrelated to race (Chapin & Pierce, 2012).

Based on the preceding review of the literature, the following hypotheses and research question are posited:

H1: Criminals believe they are less likely than other criminals to get caught.

H2: Inmates believe they are less likely than other inmates to get caught again in the future.

H3: Optimistic bias will increase as self-esteem increases.

H4: Optimistic bias will increase as self-efficacy increases.

RQ1: What is the relationship between optimistic bias among inmates and demographics (age, gender, race, marital status, and criminal record)?

METHOD

Participants and Procedures

Access to the files of each inmate (18 years of age and older) incarcerated on a pre-determined day was granted from the warden of a county jail, located within a mid-Atlantic state. According to the U.S. Census (2012), the population estimate for the county is just over 170,000 residents. Over 90% of the county's residents are white. The total capacity for the county jail is 403 inmates. The official count on the pre-determined date was 358 inmates. The total collected sample size was 351. Of the collected sample, all but two individuals were classified as either white or black. The remaining two cases were excluded from the analysis, leaving a total sample size of 349. Of the 349 eligible, 60 (17%) agreed to complete a survey with one of the researchers. Inmates received no compensation or special privileges for their participation and completed informed consent prior to the interviews. Both researchers completed special training on working with inmates prior to receiving approval from the university's Institutional Review Board (IRB) for conducting research with inmate populations. Descriptive statistics for the sample are in Table 1.

Table 1

Descriptive Statistics for Variables, N = 60

Dichotomous Variables	N	%
Gender		
Male	52	86.7
Female	8	13.3
Marital Status		
Not Married	55	90.0
Married	6	10.0
Race		
White	36	60.0
Black	24	40.0
High School Diploma/GED		
HS Diploma	36	60.0
No HS Diploma	24	40.0
Sentenced		
No	50	83.3
Yes	10	16.7
Offense Type		
Drug Related	26	43.3
Property Related	20	33.3
Violent	14	23.3
Most Serious Prior Conviction		
Drug Related	23	46.0
Property Related	15	30.0
Violent	12	24.0

Continuous Variables	Mean	SD	Range	N
Age at Intake	32.2	10.7	18-57	60
Incarceration Time (months)	7.7	6.3	2-28	60
Sentence Length (in months)	17.4	10.8	6-48	60

Materials

Optimistic bias was measured with a standard instrument (Weinstein, 1989): "Compared to others convicted of similar offenses, how likely are you to become incarcerated again in the future?" Responses were on a Likert-type scale (-3 = much less than others; 3 = much greater than others). Optimistic bias is indicated by a negative mean.

Participants also were asked "Compared to others committing similar offenses, how confident were you at the time you committed the offense which resulted in your incarceration that you would get away with it?" Responses ranged from -3 (not confident) to 3 (very confident).

Self-esteem was measured with the Rosenberg scale (1979), a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. All items are answered using a 4-point scale ranging from strongly disagree (0) to strongly agree (3). Negative items were reverse coded, so higher numbers indicate higher esteem. The resulting scale was reliable ($\alpha = .83$).

Self-efficacy was measured with a single item: "How confident are you in your ability to re-enter society (get a job, find housing, etc.) following release?" Responses were measured on a Likert-type scale (0 = not confident; 6 = very confident).

Demographic information was obtained from inmate files. Gender of the offender was coded as male (1) or female (2). Marital status at the time of incarceration was coded as (0) not married, separated, widowed or divorced or (1) married. Inmates with a high school diploma or GED were coded as 1 and those without a diploma or GED were coded as 0. Race was coded as white (1) or black (2). The nature of incarceration was coded as either not-sentenced (0) or sentenced (1). Length of incarceration and age also were included as continuous variables.

RESULTS

H1 predicted optimistic bias, that inmates believed they are less likely than others to get caught for the offense (for which they are currently incarcerated). Optimistic bias is indicated by a group mean significantly less than zero. As predicted, inmates believed they were less likely than others to get caught ($M = -.2$, $SD = 1.9$), $t (56) = 13.0$, $p< .000$. H1 was supported.

H2 predicted optimistic bias about future crimes, that inmates believed they are less likely than other inmates to become incarcerated again. As predicted, inmates believed they were less likely than others to be incarcerated in the future ($M = -1.0$, $SD = 2.0$), $t (56) = -3.6$, $p< .01$. H2 was supported.

Table 2 displays zero-order correlations among the variables predicting optimistic bias. Standard multiple regression was used to identify the predictors of optimistic bias. Analysis of residual plots indicates that assumptions regarding normality, linearity and homoscadasticity were met. Because optimistic bias is indicated by a negative mean, signs are reversed in the tables for ease of interpretation.

H3 predicted that optimistic bias would increase as self-esteem increased. Self-esteem ranged from 1 (very low) to 30 (very high), with an average of 20.1. Most of the inmates (76%) rated in the top half (positive self-esteem). Only 5% exhibited very low

self-esteem. Table 3 shows the predicted relationship emerged for the past offense, but not for future incarceration. H3 was supported, but only for past criminal activities.

Table 2

Zero-Order Correlations among Variables Related to Optimistic Bias

	2	3	4	5
1. Optimistic Bias (future)	.09	.28*	.08	.06
2. Optimistic Bias (past)	----	.07	.32**	-.14
3. Self-Efficacy		----	.19	.05
4. Self-esteem			----	.02
5. Age				----

Note. *p<.05, **p< .01.
Because optimistic bias is indicated by a negative mean, signs are reversed in rows one and two for ease of interpretation.

Table 3

Summary of Linear Regression Analysis for Variables Related to Optimistic Bias

Adj. r^2 = .14

N = 56

Predictor	*B*	*SE B*	β
Self-efficacy	.24	.13	.15*
Marital status	.11	.06	.12*

*p<.05
Because optimistic bias is indicated by a negative mean, signs have been reversed for ease of interpretation.

H4 predicted that optimistic bias would increase as self-efficacy increased. Confidence in one's ability to be re-enter society (home, job, etc.) following incarceration ranged from zero (3.3%) to six (41.7%), with an average of 4.3. Self-efficacy skewed high, with 65% of inmates exhibiting at least moderately high confidence. Tables 2 and 3 show self-efficacy as the strongest predictor of optimistic bias regarding future incarceration. H4 is supported, but only for optimistic bias regarding the future.

RQ1 explored the relationship between optimistic bias and demographics (age, gender, race, marital status, and criminal record). The demographic breakdown of the sample is described in Table 1. T-tests were used to test for differences in optimistic bias in binary variables (gender, marital status, and race). One-way ANOVA was used to test for differences between categorical variables (type of offense). Correlation was used to test for a relationship between optimistic bias and age. The only significant relationship to emerge

was between future optimistic bias and marital status. Married (M = -3.0, SD = .1) inmates were more optimistic about their ability to avoid future incarceration than were unmarried (M = -.8, SD = 2.1) inmates, t (55) = 2.4, p< .01. Table 3 shows marital status to be a significant predictor of optimistic bias regarding future incarceration.

DISCUSSION

The purpose of the current study was to see if optimistic bias emerges among inmates. The theory originated from health psychology. While a number of recent studies have documented the phenomenon among crime victims, the current study extends the literature by documenting optimistic bias among perpetrators. Participants in the study were incarcerated for drug-related offenses, property-related offenses, and violent offenses. Optimistic bias emerged for all three types of offenders, with no significant differences between offender types. Inmates were optimistic about not getting caught for the offense they were currently serving time, and even more optimistic about not being incarcerated again in the future. The use of qualitative measures (indepth interviews) could further explain if inmates are optimistic about not committing further offenses or optimistic about not getting caught again in the future.

The current findings do provide some useful insights into the perceptual bias among current inmates. Despite being convicted and serving time for a criminal offense, inmates exhibited high self-esteem. This positive self-perception was the strongest predictor of optimistic bias for the offense that resulted in the current incarceration. This could be interpreted as being smarter or more highly skilled at evading the police than other offenders. Marital status and family relationships didn't prevent the perpetration of the crime, but the higher the self-esteem, the more likely they were to think they were going to get away with it. While inmates' self-esteem wasn't diminished following conviction, it no longer predicted optimistic bias about future crimes. Instead, marital status and confidence in one's ability to re-enter society (get a job, find a place to live) emerge as the strongest predictors of optimistic bias about future incarceration. This relationship held true, regardless of the race or gender of the offender.

These results suggest the need for different approaches to crime prevention and rehabilitation of inmates, with an emphasis on stabilizing families and personal relationships during periods of incarceration.

A number of limitations should be considered before interpreting the results of this study. Inmates are a protected population for research. This limited the sample size of the current study and may discourage others from conducting research in jails and prisons. For the current study, this limits the generalizability of the results. Despite these limitations, it is important for research in this area to continue.

CONFLICT OF INTEREST STATEMENT

None to report.

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