observing or otherwise learning about the punishment experiences of others. However, Gibbs (1975) and Erickson, Gibbs, and Jensen (1977b) argued that each of these types can involve subtypes: (1) absolute deterrence, where people refrain entirely from crime in response to a threat of legal punishment, and (2) restrictive deterrence, where people curtail their criminal behavior to reduce a threat of legal punishment. To illustrate restrictive deterrence, a person may burglarize only one house in a neighborhood rather than two or more out of a belief that the risk of legal punishment increases with each successive burglary. The importance of such distinctions is that legal punishment may achieve only some types of deterrence and not others (e.g., absolute general deterrence and not restrictive specific deterrence). Consistent with such a possibility, Erickson et al. (1977b, p. 448) used different crime rates for absolute and restrictive deterrence and found that "some types of rates provide more support for the deterrence doctrine than do other types."

Conclusion

Gibbs believed it was premature to formulate a deterrence theory without considerable exploratory research on the foregoing and related issues. Although there is still no systematic deterrence theory, Gibbs brought us closer to it than anyone since Bentham and Beccaria.

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See also General Deterrence Theory; Nagin, Daniel S., and Raymond Paternoster: Individual Differences and Deterrence; Perceptual Deterrence; Stafford, Mark C., and Mark Warr: Deterrence Theory; Williams, Kirk R. and Richard Hawkins: Deterrence Theory and Non-Legal Sanctions

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GIORDANO, PEGGY C., AND STEPHEN A. CERNKOVICH: COGNITIVE TRANSFORMATION AND DESISTANCE

While exploring the generalizability of social bond theory to explain the desistance of female offenders, Peggy Giordano, Stephen Cernkovich, and Jennifer Rudolph developed the theory of cognitive transformation. Their theory provides a symbolic interactionist perspective of desistance by examining how both social influences and internal changes within an individual lead to an offender's desistance from criminal behavior. Unlike Travis Hirschi's social bond theory and Robert Sampson and John Laub's age-graded theory of informal social control, Giordano et al. postulate a reciprocal relationship between the actor and the environment, arguing that desisters have not only established prosocial bonds but also have experienced "cognitive shifts" that have facilitated their desistance from criminal behavior (p. 999). More recently, the theory of cognitive transformation has evolved to include the role of emotions in addition to the role of social influences and cognitions in the desistance process.

Development of the Theory of Cognitive Transformation

Giordano et al. developed the theory of cognitive transformation as a response to Sampson and Laub's age-graded theory of informal social control, which argues social bonds formed in adult-hood can change the trajectory of an offender's criminal behavior. In particular, Sampson and Laub contend that people with criminal propensities can form prosocial adult bonds, such as finding a stable job or getting married, which serve as turning points. These bonds, when associated with increased social capital, can reduce the offender's criminal propensities by exerting control over the offender's behaviors and activities.

In 2003, Laub and Sampson revised their theory of informal social control to include structured routine activities and human agency as conditions that lead to an offender's desistance. They argue that when offenders experience prosocial bonds they experience new responsibilities (i.e., going to work on time), which creates more structured routine activities. This increase in structured routine activities decreases the opportunities for criminal behavior and increases the probability of desistance.

The revised age-graded theory of informal social control also considers the role of human agency. Human agency refers to an intentional, active choice by the offender to engage in or desist from criminal opportunities. The revised theory

recognizes that an individual plays an active role in the desistance process, and his or her choices influence his or her exposure to prosocial bonds. However, Laub and Sampson argue that a person's choice is constrained by the structural contexts of his or her life, and thus human agency is better referred to as "situated choice."

The theory of cognitive transformation and the revised age-graded theory of informal social control are similar in that both prosocial bonds and human agency are fundamental aspects of the desistance process; however, in "Emotions and Crime Over the Life Course: A Neo-Meadian Perspective on Criminal Continuity and Change," Giordano et al. argue Laub and Sampson's theories are incomplete and place too much emphasis on the external turning points and not enough focus on the offender's human agency and subsequent cognitive changes. The theory of cognitive transformation argues that both the cognitive changes within the individual, or "cognitive shifts," and the exposure to prosocial opportunities are fundamental influences that lead to an offender's desistance from crime (Giordano et al., 2002, p. 999). Thus, desistance is the result of a reciprocal relationship between the offender and the environment. Due to the emphasis on "cognitive shifts" and human agency, the theory of cognitive transformation refers to prosocial bonds as "hooks for change" rather than turning points (p. 1000). Giordano et al. justify this difference in terminology by arguing that the offender must be exposed to a prosocial opportunity for change, which the offender actively creates through his or her human agency, and be "hooked by" or receptive and willing to use these prosocial opportunities as a catalyst to change his or her behavior and desist from crime.

Four Cognitive Transformations

In "Gender, Crime, and Desistance: Toward a Theory of Cognitive Transformation," Giordano et al. argue desistance is the result of a set of four cognitive transformations. The four cognitive transformations that an offender must pass through are (1) "a general cognitive openness for change," (2) "exposure to a particular hook or set of hooks for change," (3) the ability "to envision and begin to fashion an appealing and conventional 'replacement self' to supplant the marginal

one," and (4) "a transformation in the way the actor views the deviant behavior or lifestyle itself" (pp. 1000–1002).

The first cognitive transformation involves an openness for change, or the offender's ability to see change may be possible and could be desirable. In this first transformation, the offender does not completely resist the possibility of desisting from crime. Rather, the offender is receptive to the idea that he or she could stop engaging in deviant behavior if presented with the opportunity.

Once the offender has a general openness for change, the individual must be exposed to positive "hooks for change." Similar to Sampson and Laub, Giordano et al. argue offenders have human agency and actively seek out these change opportunities; however, Giordano et al. place a greater emphasis on the reciprocal relationship between the offender and the prosocial opportunity. Neither a general openness for change nor positive hooks for change is enough for the desistance process to occur. Rather, both need to be present. Thus, an offender must be open for change, be exposed to a positive opportunity, and form a cognitive connection with the opportunity in order for desistance to be possible. If the offender does not have a general openness to change, the offender will not be receptive to or view a prosocial opportunity as a positive development for his or her life and will not form a cognitive connection with the opportunity. However, if the offender is open for change and is presented with a positive opportunity, the offender could form a cognitive connection with the new opportunity, view it as a positive development, and begin to define their current situation and lifestyle as incompatible with continued deviance increasing the possibility of desistance.

The third cognitive shift, the development of a "replacement self," occurs when the offender begins to create a new self-identity defining the type of person the offender hopes to become. This new self-identity serves as a "cognitive filter for decision making" (p. 1001). No longer does the offender view himself or herself as a criminal; rather, the offender begins to accept the self-view as a good worker, spouse, and/or parent. The offender then, using this new prosocial identity, determines if certain behaviors, such as criminal behavior, are congruent with the responsibilities and expectations of the new roles he or she is assuming. Because

antisocial behavior is not compatible with this new prosocial identity, the offender is likely to desist from crime.

The final cognitive shift, the change in how the offender views criminal and deviant behavior, is the culmination of the three prior cognitive transformations. In this stage, the offender begins to view criminal and deviant behavior as negative and unappealing, while viewing prosocial behaviors as desirable. Thus, the offender no longer has the motivation or believes the prior rationalizations that led to his or her prior participation in deviant behavior; rather, the offender is now motivated to engage in prosocial behaviors that are compatible with his or her new self-identity. When this final cognitive transformation occurs, Giordano et al. argue the desistance process essentially is complete and criminal behavior is highly unlikely.

The Integration of Emotions to the Theory of Cognitive Transformation

In 2007, Giordano et al. revised their theory of cognitive transformation to include the role of emotions, particularly love, and the offender's "emotional self" in the desistance process (p. 1608). Giordano et al. argue a strictly cognitive approach to explaining desistance is incomplete. Rather, they postulate that emotions also facilitate crime and emotional transformations are an important aspect of the desistance process. Specifically, they present three life-course changes in the "emotional realm" that are associated with the desistance process: (1) the "diminution of negative emotions originally connected to criminal behavior," (2) "a gradual diminution of positive emotions connected to crime," and (3) "an increased ability to regulate or manage the emotions in socially acceptable ways" (p. 1610).

Giordano et al. argue that the addition of the emotional realm in explaining desistance is especially important when explaining the beginning stages of moving from an antisocial to a prosocial lifestyle. Rather than the offender intentionally choosing to change his or her behavior, emotions have a strong influence on how and why the offender first develops a general openness for change. Emotions, especially love for another person, also influence the offender's receptiveness to hooks for change, provide informal social control,

and provide the offender with an emotional role model to help the offender envision a new prosocial way of life.

Finally, Giordano et al. propose that a loving relationship filled with good emotions will reduce the negative (e.g., anger) and positive (e.g., excitement) emotions associated with criminal offending, provide social support to help offenders manage their emotions, and lead to strong emotional connections to prosocial behaviors and relationships that replace the offender's attachments to his or her prior antisocial lifestyle. This strong emotional connection to a prosocial lifestyle also helps solidify the offender's cognitive transformations that resulted in the offender's new prosocial self-identity and rejection of deviant behaviors. Thus, the combination of prosocial bonds and both cognitive and emotional transformations ultimately results in the offender's desistance from criminal behavior.

Overall, the theory of cognitive transformation is an evolving theory. Beginning as a response to Sampson and Laub's age-graded theory of informal social control and evolving to include the emotional realm in the desistance process, the theory of cognitive transformation is an important addition to the explanation of the desistance process. The theory provides one of the most comprehensive explanations of desistance as it considers the social, cognitive, and now emotional influences on the desistance of criminal behavior and should be subjected to empirical tests in the future.

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See also Hirschi, Travis: Social Control Theory; Maruna, Shadd: Redemption Scripts and Desistence; Sampson, Robert J., and John H. Laub: Age-Graded Theory of Informal Social Control

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GLUECK, SHELDON, AND ELEANOR GLUECK: THE ORIGINS OF CRIME

Born in Poland, Sheldon Glueck became Roscoe Pound Professor of Law at Harvard. He and his wife Eleanor were pioneers in the analysis of criminal careers. They began by studying various samples of delinquents passing through Massachusetts reformatories and following up their subsequent involvements with the criminal justice system. Their work was noteworthy for diligence and comprehensiveness in the collection and collation of information from a variety of sources. They were impressed by the early onset of serious antisocial behavior, by the rapid decrease of offending with increasing age, by the persistent misconduct of a hard core of juvenile offenders, and by the apparent ineffectiveness of prevailing systems of probation and incarceration. They then embarked upon an ambitious project intended to lead to the identification of root causes of delinquency. They would compare the criminal career courses of matching pairs of delinquents and non-delinquents from similar social backgrounds. This project and its subsequent follow-up work occupied them for the rest of their working lives. The resulting publications caused heated debate among criminological theorists and stimulated concern about juvenile justice policies.

The Gluecks' Research Projects

A sample of 500 boys with court records of persistent delinquency, drawn from two corrective