THE EMERGENT RELATION BETWEEN ANGER AND ANTISOCIAL BELIEFS IN YOUNG OFFENDERS

by

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A thesis submitted in conformity with the requirements for the degree of Master of Arts
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ABSTRACT
The tendency for youth to form antisocial beliefs and persevere in those beliefs through adolescence and adulthood has been identified as a risk factor associated with delinquency. Research to date has largely neglected examining how these beliefs emerge and stabilize in young offenders. The present study investigated the emergent relation between anger and antisocial beliefs from the perspective of developmental psychopathology in general and self-organizing personality development in particular. Sixteen repeat offenders were compared to 13 first-time offenders as to their levels of anger and antisocial beliefs. Participants’ anger and antisocial beliefs were measured by two questionnaires. The findings revealed a significant correlation between anger and antisocial beliefs for repeat offenders and no association for first-time offenders. In addition, it was found that offense type differentiated levels of anger and antisocial beliefs for repeat offenders. The findings were interpreted as evidence for the crystallization of a relation between anger and antisocial beliefs as a function of repeat offenses.
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CHAPTER 1
INTRODUCTION

Among the important risk factors contributing to criminal behaviour is the tendency for youth to form antisocial beliefs and persevere in those beliefs throughout adolescence and adulthood (Andrews, 1989; Andrews & Bonta, 1994; Andrews et al., 1992; Dodge et al., 1990; Dodge & Somberg, 1987; Farrington, 1990; Hirschi, 1969; Mak, 1990; Perry, Perry & Rasmussen, 1986; Shields, 1992; Slaby & Guerra, 1988; Thornberry, 1987). Antisocial beliefs are characterized by distrust of authority figures (e.g., police, judges, lawyers), perceptions of the world as hostile and unsafe, endorsement of aggressive solutions, and identification with delinquent peers. Although these beliefs have been identified as a major risk factor to delinquency, research to date has not explicitly examined how antisocial beliefs develop and, in turn, how they influence personality development.

The purpose of this thesis is threefold: 1) to suggest the importance of emotion, namely anger, in the development and perpetuation of antisocial beliefs, 2) to provide evidence based on empirical data for the emergence and crystallization of this specific emotion-cognition interaction in young offenders, 3) to highlight the developmental nature of this crystallization and to suggest its impact on personality organization. In order to accomplish these aims, I will argue in this chapter that the conventional approach to delinquency research that focuses primarily on the identification of isolated risk factors has a number of inherent shortcomings. An alternative and perhaps more fruitful framework will be suggested—one that incorporates a number of premises put forth by developmental psychopathologists and is based specifically on dynamic systems theory. Once the general tenets of the dynamic systems model of personality development are outlined, the
theoretical rationale for implicating anger in the study of antisocial beliefs will be clarified. A review of empirical studies that have examined anger and its cognitive and behavioural correlates will be presented to strengthen this rationale. Finally, the advantages and implications of viewing the development of antisocial beliefs as part of the broader self-organizing process of development will be discussed.

A number of investigators have mentioned the contribution antisocial beliefs make to delinquent behaviour. In general, research has shown that antisocial and aggressive children, compared to their less aggressive peers, are more likely to reject the validity of laws (see Andrews et al., 1992 for review), appear to be more tolerant of deviant acts (Jurkovic, 1980), and are more likely to believe that their behaviour will be materially rewarded (Perry, Perry, & Rasmussen, 1986). They tend to believe their antisocial behaviour leads to increased self-esteem and helps avoid a negative image among peers (Slaby & Guerra, 1988; Moffitt, 1993). In addition, aggressive children have a hostile attributional bias that predisposes them to attribute hostile intent to others' ambiguous actions (Dodge & Somberg, 1987; Dodge, 1993; Dodge et al., 1990; Epps & Kendall, 1995). These antisocial beliefs have been labeled "risk factors" in that they seem to increase the likelihood, above the base rate of the population, that the individual will engage in delinquent behaviour.

**Conventional Approaches to Delinquency Research**

The study of risk factors has been enormously useful in establishing a rich pool of information regarding the various cognitive, biological, social, and environmental factors that increase the likelihood that a youth will engage in criminal acts. This approach to the study of delinquency remains
important and meaningful; however, a number of researchers in the field have begun to recognize the inadequacy of focusing on the identification of specific predictive factors that are consistent with a given outcome (i.e., antisocial behaviour) (e.g., Thornberry, 1987; Loeber, 1988; Cicchetti & Richters, 1993; Moffitt, 1993; Dodge, 1993). The approach may be insufficient for several reasons.

First, and perhaps the most basic limitation of identifying risk factors such as antisocial beliefs as predictors to delinquency is that this sort of classification seems to say little about what mechanisms function to form and maintain these beliefs in delinquent youth. The focus of risk research is on the outcome, namely, criminal offending, as opposed to the processes that may be involved in developing delinquent tendencies. A typological list of risk factors falls short of providing an adequate explanatory theory of delinquency.

A second shortcoming to approaching delinquency research from a "risk factor" framework is the inherent assumption of the homogeneity of delinquent behaviour. Dodge (1990) described conduct disorder as "at best a heuristic term to describe heterogeneous phenomena with differing etiologies and courses. We are no more likely to find a single cause of CD than we are of cancer" (p. 699). It seems reasonable to make the same assertion about delinquency. Numerous risk factors including specific attachment patterns (Greenberg et al., 1993), neurological deficits (Moffitt, 1993; Moffitt, 1990), the quality of parent-child interactions (Patterson, 1982; Loeber & Stouthamer-Loeber, 1987), association with deviant peers (Andrews et al., 1992; Farrington, 1986; Johnson, 1979), age of onset of delinquent behaviour (Farrington et al., 1990) and poverty (Farrington, 1986; Farrington & West, 1981; Loeber &
Stouthamer-Loeber, 1987) have been heralded as ‘major’ risk factors to delinquency. Delinquency, however, does not refer to one homogeneous condition or type of act.

Many researchers have duly noted the heterogeneity of delinquent behaviour and are conducting ongoing, large-scale longitudinal studies in order to map the diversity of antisocial behavioural paths leading to delinquent outcomes (e.g., LeBlanc, et al., 1988; Tremblay et al., 1989; Loeber et al., 1988, 1991; Patterson, 1982.). For example, Patterson (1982) proposed two subtypes of offenders that he labeled "stealers" as opposed to "aggressors." Moffitt (1990) also differentiates the behavioural trajectories of delinquent youth by dividing them into “adolescent limited” versus “life-time persistent” offenders.

Perhaps the most detailed account of the various developmental sequences of antisocial behaviour has been presented by Loeber and his colleagues (e.g., 1990, 1991, 1993). Loeber (1991) differentiates between antisocial behaviour characterized by overt/aggressive (i.e., assault), covert/non-aggressive (i.e., lying, theft, truancy) and versatile transgressions (combination of aggressive and non-aggressive acts). Each one of these developmental pathways is characterized by different types of risky behaviours that lead to different forms of criminal offending. For example, Loeber (1988; 1990) describes individuals on the “versatile/aggressive path” as typically having an early onset of behaviour problems (usually beginning in preschool). These youth tend to develop aggressive and non-aggressive concealing behaviours, they exhibit deficits in attention, impulsivity, and hyperactivity, and their problem behaviour is evident at home and at school. They also have the “highest innovation rate of developing novel antisocial
acts" (Loeber, 1990, p. 22), their desistance rate is low and there are significantly more boys than girls who tend to follow this path. Alternatively, individuals on the "nonaggressive path" have a much later age of onset of behavioural problems than individuals on the aggressive path, they are far less likely to exhibit hyperactivity, and they tend to confine themselves to behaviours such as theft, truancy and substance abuse. Most of these individuals engage in antisocial acts with peers rather than on their own, as opposed to aggressive/versatile youth who are more likely to act individually. Youths on this nonaggressive path are less likely to develop a variety of novel forms of delinquent behaviour and are more likely to desist in their delinquency in their late adolescence. The proportion of females on this path is greater than on the aggressive path, although boys still predominate. Through prospective and retrospective studies, Loeber (1990) has identified versatile offenders as the most likely to recidivate, followed by individuals who only engage in aggressive acts. Finally, non-aggressive offenders are the least likely to reoffend as compared to the other two groups.

The developmental pathways outlined by Loeber and other delinquency researchers (e.g., Farrington, 1990; Patterson, 1982) are based on empirical data from longitudinal studies and, as such, describe patterns of progressive antisocial behaviours that indeed reflect the heterogeneity of these behaviours. However, the diversity in underlying processes that may influence individuals' propensity to criminally offend are rarely addressed in these descriptive models. As a result, the question of how diverse offending trajectories unfold for different individuals remains unanswered.

A third weakness to approaching the study of delinquency from a "risk factor" perspective is the lack of attention paid to the interrelations among
factors. It remains common practice to sample a small number of predictor variables and to relate these factors to a target outcome later in time (Tolan & Thomas, 1995). This form of investigation may lead to several misconceptions about the development of delinquency. For example, in viewing delinquency as the behavioural outcome resulting from one or more static predictors, there is a false assumption that these factors exert the same influence throughout development (Cicchetti & Richters, 1993). A child exhibiting temper tantrums at three years of age is considered to be acting normatively, whereas the same behaviour in an adolescent is considered to be a symptom of conduct disorder (Achenbach, 1993). By ignoring interrelations, investigators also neglect to address issues of covariance. Cicchetti & Richters (1993) point out that internal processes implicated in causal models of conduct disorder are often not evident in isolation. Deficits in diverse areas such as social information processing, neuropsychological functioning, emotion regulation, and impulse control, meaningfully covary to a large extent in antisocial children (Cicchetti & Richters, 1993). The extent to which one deficit interacts with others is contingent on various factors such as an individual’s stage of development, parental attachment and peer group. Factors regarded as causal may in fact be products of other covarying systems that only slightly relate to antisocial behaviour. Furthermore, unidentified or underemphasized processes may indeed be influential in antisocial behaviour, but because they are intertwined and perhaps blurred by other interacting factors, their importance may be overlooked (Cicchetti & Richters, 1993). Thus, ignoring interrelations may also lead to the neglect of examining embedded causal sequences.
An empirical example may serve to clarify the importance of focusing on interrelations. Tolan and Thomas (1995) recently reviewed five waves of the National Youth Survey data in order to investigate whether age of onset, one of the most commonly acknowledged “risk factors” in delinquency research, is indeed predictive of criminal involvement. They found that early, as opposed to late age of onset, can “boost” criminal involvement, but that this boost is minimal and does not explain individual differences in offending. Instead, it was psychosocial variables (i.e., attitude toward deviance, family and peer involvement in academic pursuits, delinquent peer involvement) prior to and after onset that exerted stronger influences on chronicity and seriousness of offense. Most importantly, their results suggest that certain psychosocial factors (‘risks’) influence the age at which an individual may offend but, in addition, offending (‘outcome’) prompts changes in the psychosocial environment. Clearly, there does not seem to be a straightforward cause and effect relationship. Tolan and Thomas concluded that the use of a single sampling of predictors to understand later outcome “distort[s] our understanding not only of their stability, but their power to explain dynamic involvement patterns” (1995, p. 179).

The fourth criticism that can be made of research that aims to isolate risk factors is related to the previous consideration of interrelations: that is, the extent to which contextual issues are ignored in these types of studies. It is common and encouraged practice in the social sciences to “control” context variables. This method of dissection most often results not only in the loss of an enormous amount of meaningful information, but also in the increased likelihood of misleading conclusions.
Dodge (1990) advocates meaningful investigations focused on the interaction of individual and contextual factors. He points out the futility of reliably controlling for context variables by asking, "...in a world of genetic evolution, rapid medical advances, a war on poverty, and popular guides to parenting, how can one know what is the 'true' population in regard to genetic and environmental variables?" (Dodge, 1990, p. 698). He goes on to assert that "one cannot know, and therefore conclusions can be made only within contextual bounds" (p. 698). The focus on "relative strength" of main effects is meaningless to Dodge because the strength of these effects are contingent on the context in which they are studied.

Lewis and Douglas (in press) have similarly argued that the common approach to psychological research tends to be aimed at "rounding off" the enormous variability in behaviour. Lewis points out that by controlling for context effects and comparing average scores, researchers invariably celebrate 'significant' results which often render at least 70% of the variance meaningless (Lewis, in press). Similarly, researchers investigating the causes of delinquency typically attempt to compare a group of offenders to a group of non-offenders on some variable of interest and assume the difference found is due to the identified variable. The difficulty with this approach is that it is impossible to be sure that innumerable other contextual factors were not responsible for the differences found. Rather than comparing offenders to groups of 'normal' youths, it seems important to study individual differences among offenders, keeping in mind the contextual constraints that may be influential in their development.
Developmental Psychopathology

I have outlined a number of potentially important shortcomings in approaching the study of delinquency from a strict examination of risk factors. In order to address these difficulties, a developmental approach is required. Recently, a number of prominent researchers in the field of conduct disorder have begun to conceptualize their work as part of the larger discipline of developmental psychopathology (e.g., Achenbach, 1990; Dodge, 1993; Moffitt, 1993; Sroufe & Rutter, 1984). Developmental psychopathology aims to unify various diverse modes of inquiry including psychology, neuroscience, epidemiology, sociology and criminology (Achenbach, 1990; Cicchetti, 1990; Rutter & Garmezy, 1983). It is a developmentally based perspective that focuses on capacities and limitations that emerge at various stages of development. Developmental psychopathologists share the view that "ontogenesis is an integrated and complicated process, characterized by multiply determined pathways and outcomes that interact in a complex system of biological, psychological, and environmental factors..." (Cicchetti & Toth, 1992, p. 491). This perspective promises to complement the burgeoning research on risk factors and further enrich our understanding of delinquency.

Approaching the study of antisocial behaviour from a developmental psychopathology perspective seems to address a number of the previously mentioned weaknesses inherent in more conventional forms of inquiry. Developmental psychopathologists recognize "diversity in both process and outcome" (Cicchetti & Richters, 1993, p. 334) in terms of dysfunctional syndromes (i.e., Conduct Disorder) and 'deviant' behaviour. Accordingly, these researchers tend to focus their investigations on individual differences in functioning characteristics. They address questions pertaining to how
these functioning differences evolve and how they influence the unique development of the individual.

In addition, the search for single main effects is deemed inadequate. Instead of examining one factor in isolation, interrelations between biological, cognitive, emotional, and social domains are highlighted areas of interest (Moffitt, 1993; Pennington & Bennetto, 1993). Developmental psychopathologists are interested in studying how factors interact over time and how these interactions shape the developing individual.

Moreover, in developmental psychopathology, contextual factors are recognized as potential key variables in the meaningful conceptualization of human behaviour. The focus is on regressing back through the developmental path in the hopes of understanding how and when factors that may lead to psychopathology emerge and stabilize (Cicchetti & Richters, 1993). In doing so, contextual constraints that influence, and are influenced by individuals' developmental trajectories become crucial variables of interest.

For the purpose of the current study, examining antisocial beliefs in young offenders from a developmental psychopathology perspective is compelling in that the focus of investigation shifts from the outcome to the processes by which these beliefs emerge and stabilize over the course of time. It is important to note, however, that developmental psychopathology is a discipline, not a theory (Cicchetti & Richters, 1993) and as such, little attention has been paid to specifying the precise mechanisms that can explain individual developmental pathways. This is precisely the primary weakness inherent in the risk factor approach to delinquency research: the neglect to investigate underlying explanatory mechanisms. Is there a developmental
theory that both resonates with the research priorities advocated by developmental psychopathologists and sheds new light on the processes by which antisocial beliefs emerge and stabilize?

**Self-organizing Personality Development**

Recently, a number of developmentalists have begun to understand ontogenesis from a dynamic systems perspective (e.g., Fogel, 1993; Thelen & Smith, 1994; Lewis, 1995). Dynamic systems theory is based on the premise that recursive interactions among elements in a system self-organize, generating the emergence and stabilization of novel forms (Prigogine & Stengers, 1984). Principles of self-organization have proven essential in understanding both change and stability in diverse fields including physics, chemistry, biology, and evolution (Capra, 1996). Likewise, these principles are now being incorporated into models of human development by theorists such as Fogel, Smith, Thelen, and Lewis. For these theorists, self-organization has become a powerful concept through which the development of complex psychological systems can be better understood.

Particularly relevant to the present study of antisocial beliefs in young offenders is Lewis' theory of self-organizing personality development (Lewis, 1995; in press). His model incorporates many of the same considerations that occupy developmental psychopathologists and may provide the explanatory tools necessary for the more precise examination of the mechanisms by which antisocial beliefs develop and, in turn, affect development. Moreover, it will be shown that Lewis' approach effectively addresses the gaps in conventional approaches to research on delinquency that were previously outlined.
Lewis' theory of self-organizing personality development is based on three premises of dynamic systems theory. The first is that elements in a system interact in complex ways allowing for the spontaneous emergence of potentially novel structures (Prigogine & Stengers, 1984). Lewis' focus is on the psychological system and its components; the novel structures he investigates are emergent mental and behavioural patterns. These novel developmental structures are not completely prespecified by the individual components of the system and thus random fluctuations or small changes have the potential to influence developmental outcomes (Lewis, 1995). This notion is similar to other organizational perspectives on development which emphasize the qualitative reorganization within and among the cognitive, emotional and social systems that occurs at various junctures of ontogenesis (Cicchetti & Schneider-Rosen, 1986; Sroufe & Rutter, 1984).

The second premise concerning self-organizing systems is that they have a tendency to move towards coherence and stability. Through repeated feedback loops, elements of a system tend to coalesce into stable states. This move is described as a shift from indeterminacy to determinacy. Similarly, Cicchetti and Richters (1993) describe development as a progression from "a state of relatively diffuse, undifferentiated organization to states of greater articulation and complexity by differentiation and consolidation of the separate systems, followed by hierarchical integration within and between systems" (p. 336). This move towards integration is a basic tenet of organizational perspectives in general. Lewis' theory deviates from these organizational approaches by integrating the third major premise of self-organizing systems in general: the system's reliance on disequilibrium (Prigogine & Stengers, 1984).
According to dynamic systems principles, in order for self-organization to proceed, the system must be in a state of disequilibrium. The emergence and stabilization of new developmental structures through self-organization occurs only "when the system is far from equilibrium" (Capra, 1996, p. 85). Lewis incorporates this notion and suggests that it is the emotional system that realizes this state of disequilibrium at the psychological level and, thus, fuels the process of self-organizing personality development. Moreover, Lewis specifies that it is through the interaction of emotion and cognition that novel personality structures emerge through development (Lewis, 1995).

Several emotion theorists (e.g., Frijda, 1986; Lewis, 1995; McNaughton, 1989; Oatley & Johnson-Laird, 1987, 1996) emphasize the functional, adaptive nature of emotions. Emotions are believed to be elicited from cognitive evaluations of events relative to an individual's personal goals (Frijda, 1986; Lazarus, 1982, 1984; Oatley & Johnson-Laird, 1987, 1996). They focus an individual's attention on certain aspects of a situation, prompting changes in action readiness (Frijda, 1986). Emotions also serve to organize the cognitive system by imposing a specific mode of operations that may include attentional demands and memory biases (Oatley & Johnson-Laird, 1987). There is a growing body of evidence supporting the notion that emotions and cognitions reciprocally influence one another (e.g., Teasdale, 1983; Bower, 1981; Isen et al., 1978; Johnson & Tversky, 1983; Huesmann, 1988., Lewis & Douglas, in press; Lewis & Junyk, in press) and several theorists have begun to understand this relation as a feedback loop in which cognitive processes and emotion are interwoven in real time (e.g., Lewis, 1995, in press; Frijda, 1993; Teasdale, 1983; Barnard & Teasdale, 1991). Conceptualizing antisocial beliefs as cognitive structures that emerge and stabilize through interaction
with emotion may provide insights into how these beliefs persist and influence developmental trajectories.

According to dynamic systems theory, self-organization relies on feedback between coupled elements of the system. Lewis posits that positive feedback between emotion and cognition is the basis for self-organizing personality development. Positive feedback refers to a recursive process in which "inputs are a positive function of [the system's] outputs" (Lewis & Douglas, in press, p.10) - it is the "generative, self-enhancing force in self-organization" (Lewis & Douglas, in press, p. 9). Thus, Lewis proposes that feedback loops are not merely closed, repetitive cycles; instead, they are a process of amplification, starting small and generating growth through time. Neither cognition nor emotion is considered primary in the feedback process. In essence, the Lazarus-Zajonc (Lazarus, 1982; Zajonc, 1984) "which comes first" debate is rendered moot in this formulation. Cognitive appraisals are conceptualized as emerging together with emotions, each amplifying the other from moment to moment.

Coupling, in dynamic system theory, refers to the cooperative, cohesive relationship among elements in a system that emerges through the feedback cycle. Lewis describes coupling between emotion and cognition in the psychological system. According to his model, from moment to moment, emotion focuses an individual's attention on particular elements in a situation. An appraisal is then formed that further generates emotion which is in turn fed back into the system through repeated iterations. Again, neither emotion nor cognition is accorded ontological priority; they emerge in coordination with one another.
Through repeated cycles of the feedback loop, there is an increased tendency for particular elements to couple. In developmental terms, stability or "crystallization" results from a recurrence of positive feedback between specific appraisals and emotions that couple over time. In dynamic systems terminology, this crystallized structure is referred to as an "attractor." (Lewis & Douglas, in press, Lewis & Junyk, in press, 1995). Attractors inform us of the recurrent patterns that have stabilized in the system and can be illustrated as valleys on a dynamic landscape. The deeper the attractor, the more durable to small changes it is. Alternatively, the width of the attractor represents its comprehensiveness (Thelen & Smith, 1994; Lewis & Douglas, in press). As an individual develops, a uniquely configured state space, defined as a model of all possible states a dynamic system can attain, emerges. It is described as a landscape of attractors that a system will tend to move towards.

Coupling occurs not only between cognition and emotion, but between cognitive elements that reciprocally select one another from moment to moment as feedback with an emotion begins. These cognitive elements include script components, images, associations and propositional forms that 'stick together' in the form of a meaningful appraisal. The emerging cognitive interpretation interacts with emotion, self-organizing in real time and recurring over development, resulting in what Lewis and Douglas (in press) term an "emotional interpretation" (EI). Emotion thus "catalyz[es]" integrated cognitive elements "into larger wholes that are semantically meaningful" (Lewis & Douglas, in press, p. 4). Throughout development, a multitude of emotional interpretations (attractors) may emerge, characterized by stability and coherence in the personality.
Emotional interpretations are considered emergent constraints that result from developmental self-organization. They emerge through properties of the system that self-organize through feedback. EIs are the product of past interactions but they go on to constrain the self-organization of the system as it develops. EIs that emerge through experimentation with drugs or the 'belonging' EI that is associated with newly formed friendships with antisocial peers may be considered examples of emergent constraints that can both result from and influence antisocial development. Antisocial beliefs can be viewed as emergent constraints on development.

Although not directly related to the present study, it is important to note that Lewis (in press) also acknowledges the importance of prespecified constraints, which he considers part of the original structure of the system. The neurological structure of the brain at birth may be an example. It has been suggested that disruption in the ontogenesis of the fetal brain, caused by maternal drug abuse or poor prenatal nutrition, may be linked to antisocial behavior (Moffitt, 1993). Neurological damage seems to in part contribute to and constrain the direction of some youths' development.

The present study is concerned with emotional interpretations as emergent developmental structures that both result from and contribute to the increasing specificity of the system. The notion of stable emotional structures that influence developmental trajectories is not particular to Lewis' theory of self-organizing personality development. Several theorists have developed models of personality based on developing emotional structures (i.e., Izard, 1977; Tomkins, 1987, 1991, 1993; Malatesta & Wilson, 1988; Magai & McFadden, 1995). Tomkins, for instance, views affect as "the primary innate biological motivating mechanism" (1987, p. 137) and posits that emotional
organizations guide and characterize individual personality development. Izard's notions of "affective-cognitive" structures (1977) and Malatesta-Magai's "emotion traits" (1988, 1995) similarly resonate with Lewis' conceptualization of emotional interpretations. Each of these theorists emphasizes the functional, organizational nature of emotion-cognition structures that work to sensitize the individual to particular ways of processing information and engaging with the world. Additionally, all four theorists have insisted that repetition of interpretations is necessary for these emotional structures to cohere and stabilize. Through the course of development, specific emotional interpretations or structures grow to characterize the individual.

Lewis elaborates upon the previous theorists' conceptualizations by specifying the self-organizing processes by which these emotional interpretations emerge from moment to moment and go on to influence development more broadly. Notions of coupling sustained by positive feedback between cognition and emotion are compelling in that they provide a novel lens through which to approach developmental research. How might concepts such as emotion-cognition feedback and coupling apply to the study of antisocial beliefs in young offenders?

Anger and Antisocial Beliefs

Researchers studying the cognitive correlates (cognitive risk factors) associated with antisocial behaviour and aggression often use the terms anger and aggression interchangeably (see Kassinove & Sakhololsky, 1995 and Speilberger et al., 1995 for review). Although there seems to be an intuitive and meaningful relationship between the two constructs, it is important to
study anger as an independent affective state which may or may not accompany aggression (Kassinove & Sakholosky, 1995). Contemporary researchers seem to agree that anger does not directly cause aggression (Averill, 1993; Kassinove & Sukhodolsky, 1995; Kassinove & Eckhardt, 1995; Berkowitz, 1990, 1993) but rather, "...anger can be likened to an architect's blueprint. The availability of a blueprint does not cause a building to be constructed, but it does make construction easier. In fact, without a blueprint, there might not be any construction at all..." (Averill, 1993, p. 188). If anger makes aggression easier, then it seems reasonable to assume that there are intervening and interacting cognitive factors that influence an individual's inclination to act aggressively.

Anger is considered by many to be one of the basic emotions (Izard, 1972, 1977; Izard & Malatesta, 1987; Ekman, 1984; Oatley & Johnson-Laird, 1987) and it may be the most frequently experienced emotion in everyday life (Averill, 1983; Oatley & Duncan, 1994). According to many emotion theorists, anger is elicited when a goal is perceived to have been impeded (Frijda, 1986; Oatley & Johnson-Laird, 1996, 1987; Berkowitz, 1989). As part of his large-scale study using the controlled diary method, Averill (1983) investigated the precursors to natural episodes of anger. He found the most common reason individuals reported feeling angry was the value judgment or appraisal of someone else's blameworthy intent. Often, this appraisal of unfairness is accompanied by attributions of blame (Frijda, 1986, 1993; Oatley & Duncan, 1994; Ortony et al., 1988). Perhaps antisocial beliefs, such as the beliefs that all police officers are corrupt or that most laws are unfair, result from youths' perceptions of their goals (i.e., material gains, freedom) being thwarted by an
authority figure. These attributions of blame in conjunction with feelings of anger may be related to aggressive behaviour.

A number of specific cognitive variables have been found to relate to feelings of anger. Deffenbacher (1993) and several other investigators (e.g., Crick & Dodge, 1994; DiGiuseppe, 1995; Dodge & Coie, 1987; Feindler, 1991; Lochman & Lenhart, 1993) have found that elevated levels of anger are related to specific cognitive information processing patterns. For example, angry people tend to overestimate the probability of negative outcomes and underestimate the probability of positive ones (Deffenbacher, 1993); they are more likely to detect social cues poorly (Crick & Dodge, 1994); and they seem to overgeneralize in that they often use broad terms such as “always” and “never” to define time and people (Deffenbacher, 1993).

Furthermore, in accordance with research that suggests that anger is related to appraisals of blame and unfairness, a large body of evidence has accumulated indicating that angry and aggressive individuals tend to misattribute hostile intent to others where none is intended (Dodge, et al., 1990; Epps & Kendall, 1995; Dodge & Coie, 1987; Dodge & Somberg, 1987). Although few of these studies have explicitly measured levels of anger, most incorporate anger in their conceptualization of aggression. For example, Epps and Kendall (1995), in their investigation of hostile attributional biases, identify anger as an important component of hostile cognitions, and Dodge and Somberg (1987) also include anger as a factor in understanding aggressive youths' hostile appraisals of others.

Particularly relevant to the discussion of antisocial beliefs and anger are the findings indicating a positive relation between trait (chronic) anger and irrational beliefs (Ford, 1991; Mizes, Morgan, & Buder, 1990; Hart et al., 1991;
Hazaleus & Deffenbacher, 1985; Hogg & Deffenbacher, 1986; Zwerdling & Thorpe, 1987; Lopez & Thurman, 1986). Ellis (1962) contends that anger is generated and maintained through an individual's upholding of irrational beliefs. Several investigators have identified a set of irrational beliefs that seem to be related to self reported anger arousal including anxious overconcern and blame proneness (Ford, 1991; Hazaleus & Deffenbacher, 1985; Hogg & Deffenbacher, 1986; Lopez & Thurman, 1986). Research on attitudes endorsed by Type A personalities have also found cynicism, distrust of others (Yuen & Kuiper, 1991), and the belief that justice does not prevail (Price, 1982) to be correlated with the higher propensity for anger.

Feedback and Coupling Between Anger and Antisocial Beliefs

Past research seems to have indicated a connection between anger and antisocial beliefs. However, the nature of this interaction and its impact upon development remain unclear. How might principles of self-organization explain the emergence and stabilization of antisocial beliefs in interaction with anger? The discussion of emerging beliefs begins at a microdevelopmental level where elements of a system reciprocally select one another, becoming coupled. As noted above, Lewis distinguishes between two types of coupling: cognitive coupling and cognition-emotion coupling. Consistent with this model, I suggest that the cognitive elements of antisocial beliefs begin to assemble together in the presence of anger. These cognitive elements can be construed as parts of a script (Nelson, 1986; Lewis, in press) or a cognitive gestalt (Frijda, 1993) that begin to coalesce into a coherent interpretation of a situation. When a youth who wants to skip a day of school and socialize with his older friends gets apprehended for truancy by a police
officer, it is likely that he will begin to perceive that officer as having frustrated his goal. Perhaps he will recall previous instances of other police officials breaking up parties or issuing speeding tickets. Thus, all these elements of an "unjust authority figure" script might couple and, in turn, become part of a cognition-emotion feedback loop with anger.

How does this antisocial beliefs-anger feedback loop begin to develop? According to Lewis, coupling between cognition and emotion is conceptualized as a positive feedback loop that is perpetuated from moment to moment. The perception of an authority figure unfairly impeding a goal may elicit anger which then directs the youth's attention to his frustrated goal of freedom from a day at school. The individual's anger thus feeds back into the system, reorganizing and updating the cognitive appraisal. This new, more coherent appraisal becomes the input for another iteration of the feedback loop. Neither anger nor the negative appraisal of authority figures are conceptualized as primary in this approach. Both are intertwined in time and occur in coordination.

Moreover, coupling between cognitive interpretations and emotions becomes more consolidated through repeated iterations of the system. As an individual begins to repeatedly appraise authority figures such as teachers and parents as purposely blocking his goal, it is increasingly likely that anger will be associated with these appraisals. Alternatively, when this individual feels angry, it will become more likely that his anger will focus his attention on authority figures who he believes are hostilely motivated toward him. In time, the emergence and stabilization of the reciprocal interaction between various negative appraisals of authority figures and anger form an attractor. This particular type of attractor can be called an antisocial EI.
Although Lewis does not discuss coupling between an individual and her environment in any depth, this seems to be an additional process through which antisocial beliefs may become stabilized. As an individual interacts with her environment, she may experience circumstances such as getting arrested for shoplifting and being sentenced to youth detention. Thornberry (1987) emphasizes the emergent nature of delinquent values formed from delinquent behavior, associations with delinquent peers, and negative interactions with authority figures. These kinds of experiences may provide the individual with additional sources of information that become incorporated into the "unjust authority figure" script and that, in turn, become progressively linked with feelings of anger.

The depth of an antisocial attractor may increase over months and years of similar feedback as it becomes increasingly resistant to change. This deep attractor may then widen as further experiences with authority figures as well as antisocial peers interact with anger. From a dynamic systems perspective, antisocial beliefs are not conceptualized as static representations that function as templates in perceiving the world. Rather, they are emergent structures comprised of increasingly articulated appraisals that, in time, become crystallized through feedback with anger.

According to Lewis, what develops as the child matures are tendencies for system elements to come together in a specific way in real time (Lewis & Douglas, in press). What may develop in youth that engage in delinquent acts is the growing tendency to move towards antisocial appraisals about the world and to behave according to those beliefs. One of the most significant predictors of criminal offending is the association with delinquent peers (Akers, 1985; Elliot et al., 1985; Farrington, 1990; Loeber, 1993). Socializing
with delinquent peers seems to allow an individual to experience with others the gains of delinquent behavior (Akers, 1985). The delinquent peers may serve to refuel the individual’s anger at authority by sharing experiences that illustrate how unfair adults can be. This added exposure to negative appraisals of authority and the law continues to elicit anger that feeds back into the cycle and may magnify earlier beliefs. As a result of repeated experiences that elicit antisocial thoughts in cooperation with anger, the antisocial EI may widen to encompass a variety of antisocial scripts. This growing EI may be influential in increasingly constraining development in particular ways. In time, developmental crystallization can be characterized by this generalization or increasing uniformity.

According to this theory of self-organizing personality development, prior experience and context are essential to what emotion is elicited and how it interacts with cognitions (Lewis, in press). Attractors on a given landscape are said to not only indicate the stability and predictability of a system given a certain context, but also to encompass the history of the system (Thelen & Smith, 1994). Attractors are the coherent products of multiple iterations of a system; behavior self-organizes into stable patterns in relation to these attractors. An example from the literature on hostile attributional biases may clarify this conceptualization. Dodge and his colleagues (1990) demonstrated that aggressive adolescents are predisposed to attribute hostile intent to others, even when the situation is an ambiguous one. From a dynamic systems perspective, the aggressive youth has developed an attractor through past experience that is characterized by hostility and anger towards others. When an aggressive adolescent is in an ambiguous context, the situational cues seem to trigger the emergence of hostile cognitive components. Anger
seems to be a part of this attractor and begins to select or pull hostile appraisals together into a "cognitive gestalt" (Frijda, 1993). Recurrent feedback between anger and these negative cognitive components crystallize into what has been labeled a hostile attributional bias.

Huesmann (1988), in his cognitive-behavioural information processing model, posits a somewhat similar notion of the role of feedback in hostile appraisals. He suggests that angry, aggressive youth act out aggressive scripts and begin to perceive aggression as an acceptable form of expression. This reorganized perception of aggression is then stored with the older aggressive scripts. As a result of accumulating experiences in aggressive contexts, Huesmann suggests that aggressive youth develop an increased sensitivity to hostile environmental cues (Epps & Kendall, 1995).

Yet, there is an essential difference between Huesmann's conceptualization of the mechanisms involved in attributional biases and a dynamic systems interpretation. According to the principles of self-organization, the hostile attributional bias is not a static mental representation that is "stored" and pulled out of the mind's drawers to be used as a model for assessing a situation. Instead, it is a temporal form in that its components coalesce in real time and emerge through feedback with the environment. Stability, in self-organizing systems, does not imply stillness; rather, attractors are characterized by an iterative process of reciprocity that both result from and contribute to development.

**Antisocial Beliefs as Emergent Constraints**

The self-organization approach to development suggests that individuals move from diffused, undifferentiated organization towards a
more predictable organization made up of an increasingly complex, articulated state space. As an individual develops, there are particular types of attractors that emerge as "cascading constraints" that are both the origin and the product of increasing specificity throughout the system. These constraints self-organize from earlier interactions, and go on to influence the self-organization of personality through the course of development (Lewis, in press). Lewis suggests that these types of self-organizing cascading constraints become personal themes that guide the developmental process by influencing new elements that become incorporated into the system. The developmental unfolding of these constraints can be understood as a process of generalization or increasing uniformity in the personality.

On a moment-to-moment time scale, the antisocial EI can be construed as an emergent constraint that reduces the degrees of freedom an individual may have in a given situation. In time, less provocation is necessary to trigger the convergence of this crystallized personality structure. According to Lewis' model, the trigger may be emotional or cognitive in nature. Consider the youth with delinquent tendencies who bangs his head on a bookshelf at school. This misfortune may elicit anger which can then feed back into the system activating a negative appraisal of the teacher who asked him to look for the book on that particular shelf. The antisocial appraisal that emerges may in turn fuel the individual's anger and perhaps induce him to act aggressively. Alternatively, the mere sight of a police officer may provide sufficient provocation for some delinquent youths to become angry and gravitate towards an antisocial attractor.

On a broader, developmental scale, the stabilization of the antisocial EI seems to narrow an individual's perceptual, affective, and behavioural
options, increasing the probability of its emergence on successive occasions. As elements such as hostile attributions of others, experiences with delinquent peers, and exposure to goal-thwarting police officials select one another and self-organize over years, this increasingly articulated antisocial pattern also decreases the possibility for prosocial attractors to emerge. For individuals who have developed a deep and wide antisocial attractor, a developmental path unfolds that may be paved with delinquent behavior.

**Rationale for Present Study**

Throughout this chapter, I have suggested viewing the emergence and stabilization of antisocial beliefs as a self-organizing process. This dynamic systems approach is not simply a semantic redefinition of conventional approaches that aim to identify risk factors that contribute to delinquency. Instead, it is a shift in paradigm that meaningfully addresses the shortcomings of previous approaches while providing novel ways to investigate processes and mechanisms underlying antisocial behaviour.

Early in this chapter, four important limitations in risk research were identified: 1) little attention is paid to the underlying mechanisms that influence the emergence of risk factors, 2) the heterogeneity of the delinquent population is often ignored, 3) interrelations among factors are frequently neglected, and 4) the influence of context variables are rarely examined. By approaching the study of antisocial beliefs from dynamic systems perspective, a number of these shortcomings may be addressed. Viewing development as a self-organizing process shifts the focus from outcome (i.e., delinquency) to the mechanisms that contribute to the development of delinquent tendencies. This approach mandates attention to individual differences in both
behavioural manifestations of delinquency, and diversity in underlying processes by addressing change and variability in personality development. Moreover, interrelations among elements in the system become the central focus of investigation; patterns of interaction, rather than linear cause and effect relationships, are examined. Finally, from a self-organization view of personality development, interactions among system elements are recognized to be context-sensitive and as such, are understood as part of a larger cognitive, emotional, biological, environmental and social self-organizing system.

The purpose of the current study therefore, was to examine the relation between anger and antisocial beliefs as a developmental, self-organizing process. To accomplish this goal, first-time offenders were compared to repeat offenders, in order to identify a developmental trend towards the crystallization of an antisocial EI. First-time offenders were compared to repeat-offenders because it was assumed that repeat offenders had been exposed to more negative experiences with authority figures such as the police, court judges and lawyers. This exposure may have provided more opportunities for the anger-antisocial beliefs feedback loop to be iterated, thus forming a consolidated antisocial EI that would not have had time to develop in first-time offenders.

Differences between first-time offenders and repeat offenders on levels of anger and the extent of antisocial beliefs reported were first investigated. In this way, the components of the antisocial EI could be examined separately. The relationship between the emotional and cognitive processes could then be studied as evidence of the emergence of the antisocial EI. An additional concern in this investigation was the heterogeneity of the delinquent sample;
therefore, it was important to take into account the types of offenses individuals had committed. Doing so enabled me to examine whether diverse types of delinquent behaviours were related to different patterns of emotion-cognition interactions. Specifically, I was interested in understanding if Loeber’s (1982) subtypes of antisocial developmental paths differentiated levels of cognitive and emotional variables.

Research Questions and Hypotheses

The current study aimed to answer the following questions:

1.) Are repeat offenders angrier than first-time offenders? It was hypothesized that the means on trait anger would be higher for repeat offenders than for first-time offenders.

2.) Do repeat offenders, as compared to first-time offenders, endorse more antisocial beliefs? It was expected that the mean number of antisocial beliefs reported by repeat offenders would be higher than for first-time offenders.

3.) Is there a relation between anger and antisocial beliefs in repeat offenders that is not evident in first-time offenders? It was hypothesized that there would be evidence for an antisocial EI, characterized by a reduction of variability in the scatter of scores for repeat offenders. It was specifically predicted that this reduction of variability would be apparent in the clustering of scores in the higher end of the distribution for both variables.

4.) Do levels of anger and antisocial beliefs differ for individuals depending on the types of offenses they have committed? It was
hypothesized that offense type would mediate levels of anger and antisocial beliefs.
Participants

There were 29 adolescent participants (23 males, 6 females) between the ages of 12 and 16 years ($M = 14.72$ years) included in this study. All participants were referred to a Family Court Clinic in an urban psychiatric hospital for a court-ordered assessment. Based on court reports, police records, and developmental histories included in the medical record charts at the clinic, participants were divided into two groups: first-time offenders (FO) and repeat offenders (RO). There were 13 participants in the FO group (10 males, 3 females) and 16 participants in the RO group (13 males, 3 females). All subjects approached to participate in the study consented to do so and formally signed a consent form. In addition, the young offender’s parent or guardian was required to sign a consent form.

Design

Two dependent variables were examined in the current study: 1) Trait Anger (TA), defined as anger chronicity, as measured by the State-Trait Anger Expression Inventory (STAXI; Spielberger 1983, 1988) and 2) Antisocial beliefs, defined as the number of antisocial statements endorsed on the Criminal Sentiments Scale (CSS; Andrews, 1985).
Additionally, there were two independent variables of interest: 1) group membership and 2) type of offender. Group membership refers to the number of times an individual was charged for a crime. Based on information from court reports, police records, and developmental mental health histories, individuals were designated as either belonging to the first-time offender group (FO) or the repeat offender group (RO). To be included in the FO group, individuals had to have only been charged for a criminal offense once; individuals in the RO group had to have been charged for a criminal offense at least twice.

Subjects were further grouped by the types of offenses they had committed, according to Loeber’s (1987) antisocial developmental pathways. Individuals’ offenses were coded as either non-aggressive (NA), aggressive (AG), sexual (SO), or versatile (VER). Subjects labeled as NA were involved in crimes that were non-violent in nature (e.g., theft, break and enter, forgery). Those in the AG group had committed violent offenses (e.g., assault, possession of weapon, uttering death threats). Individuals in the SO group were convicted of sexual offenses (e.g., rape, sexual harassment). Finally, the VER group consisted of individuals that had committed both aggressive and non-aggressive types of crimes (e.g., theft and assault). In the first-time offender group, there were 5 NA, 4 AG, 1 VER, and 3 SO subjects. In the repeat offender group, there were 7 NA, 3 AG, and 6 VER.
Procedure

A full explanation of the assessment and research procedure was given to families and adolescents during the initial intake interview with the young offenders. Written consent to use data for research purposes was obtained from all the adolescents and their parents/guardians (see Appendix). Young offender participants referred to the Family Court Clinic were asked to complete a battery of research measures, among which were the CSS and the STAXI.

Young offenders were administered ten questionnaires in total. For all participants, the CSS was the third measure completed and the STAXI was the last. The instruments were administered in the same order for all subjects to insure that levels of fatigue and/or frustration would be as close to equal as possible for all subjects. The CSS was given early in the battery of tests because it is rather lengthy and requires the subjects to be attentive for a ten minute period of time. The STAXI was administered last because of its brevity and simplistic vocabulary that requires minimal concentration.

Subjects were tested individually in an interview room at the Family Court Clinic. The entire research package took approximately 60 - 90 minutes to complete.
Instruments

Two measures were included in the present study:

1. *State-Trait Anger Expression Inventory (STAXI):* The adolescents' level of anger across situations was measured by Spielberger's (1988, 1994) State-Trait Anger Expression Inventory (STAXI). The measure was designed to assess intensity of anger as an emotional state, individual differences in likelihood to react angrily, and the degree to which anger is expressed (Spielberger, 1988). As shown in Appendix A, the STAXI is a standardized measure with 44 items composed of three subscales: chronic trait anger (TA), acute state anger (SA), and anger expression (AX). Trait anger reflects chronicity as a result of temperament and proneness to react angrily across a variety of situations. For the purposes of the current study, scores on the trait anger subscale were the only ones examined. A sample item on the TA scale is "I have a fiery temper." Subjects were asked to respond on a four-point scale ranging from "Almost never" to "Almost always." Each response was given a point from 1 ("Almost never") to 4 ("Almost always"). Points are added to yield a cumulative score for each subscale. The STAXI was chosen for its well established validity and reliability as well as its brevity. For a review of the psychometric properties of the STAXI, see Spielberger (1988, 1994).

2. *Criminal Sentiments Scale (CSS):* The youths' antisocial cognitions were evaluated using a variation of Andrews and colleagues' (1985) Criminal Sentiment Scale (CSS). The original version is shown in Appendix B. The
CSS measures the degree to which an individual is contemptuous of the police, the law and the courts as well as the extent to which the individual identifies with criminal peers and is tolerant of deviant acts (Shields, 1992). The original scale was developed for an adult criminal population; Shields and Simourd (1991) modified the scale in order to make it more appropriate for older young offenders. The instrument has been standardized on young offender and normal populations in Ontario (Shields, 1990, 1992). It consists of 41 prosocial and antisocial statements (e.g., “It’s our duty to obey all laws” and “It’s O.K. to break the law as long as you don’t get caught”). Subjects were asked to respond in one of three ways: agree, disagree, or unsure. An endorsement of an antisocial statement or a rejection of a prosocial one was scored as two points; alternatively, the rejection of an antisocial statement or endorsement of a prosocial one was scored as 0 points. Unsure responses were given a score of 1. The higher the score on the CSS, the more antisocial were the youths’ beliefs.

The version used in the present study was slightly modified from Shields’ (1990, 1992) in order to make the scale more appropriate for younger offenders (as young as 12 years of age). From Shields’ 41 items, 13 of the items were omitted in the present version because they seemed to be too confusing or were aimed at adolescents who were at least 16 years of age. For example, statements such as “Almost any jury can be fixed” and “Law and justice are the same thing” were taken out of the present version because they seemed to demand a level of cognitive maturity that most young people that are seen at
the Family Court Clinic have not reached. Following the same rationale, the wording of some of the questions was slightly modified. For example, the statement, "You cannot get justice in court" was changed to, "You cannot be treated fairly in court." A Pearson-r correlational analysis was conducted to insure that the two versions were comparable. A correlation of .97 between Shields' version and the current version of the CSS was found, thus confirming that the two versions were indeed measuring the same construct.
CHAPTER 3
RESULTS

According to the first two hypotheses, repeat offenders (ROs), as compared to first-time offenders (FOs), were expected to demonstrate higher levels of both antisocial beliefs and anger. Tables 1 and 2 present a summary of the results. In order to test the hypothesis that ROs would endorse more antisocial beliefs than FOs on the Criminal Sentiment Scale (CSS), a one-tailed t-test was conducted. As shown in Table 1, ROs endorsed significantly more antisocial beliefs than FOs. In order to test the hypothesis that ROs, as compared to FOs, would score higher on the Trait Anger subscale of the State-Trait Anger Expression Inventory (STAXI), a one-tailed t-test was conducted. As shown in Table 2, ROs did not score significantly higher on Trait Anger than FOs, although there was a trend in the hypothesized direction.

Table 1 - Independent T-tests Comparing First-time Offenders and Repeat Offenders on Antisocial Beliefs

<table>
<thead>
<tr>
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<th>M</th>
<th>SD</th>
<th>N</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-time Offenders</td>
<td>17.31</td>
<td>10.03</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.74</td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>.05</td>
</tr>
<tr>
<td>Repeat Offenders</td>
<td>24.94</td>
<td>13.00</td>
<td>16</td>
<td></td>
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</tbody>
</table>
Table 2 - Independent T-tests Comparing First-time Offenders and Repeat Offenders on Anger

<table>
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<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>First-time Offenders</td>
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<td>5.30</td>
<td>13</td>
<td>-1.49</td>
<td>27</td>
<td>.07</td>
</tr>
<tr>
<td>Repeat Offenders</td>
<td>20.00</td>
<td>5.69</td>
<td>16</td>
<td></td>
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</tbody>
</table>

The third research question investigated whether members of the RO group would demonstrate a relation between anger and antisocial beliefs that would not be apparent in the FO group. Specifically, it was hypothesized that an antisocial EI would be indicated by a reduction of variability, manifested by a clustering of scores. Scatterplots were constructed to test this prediction. As expected, there was no pattern in the relation between anger and antisocial beliefs for FOs, as shown in Figure 1. However, as Figure 2 illustrates, there was no evidence to support the specific prediction of clustering for ROs. Rather, there appeared to be a correlation between anger and antisocial beliefs for ROs but not for FOs. Although these results were unexpected, they did seem consistent with the predicted reduction of variability. It therefore seemed important to further examine this association.

Before investigating the relation between anger and antisocial beliefs in ROs, it was investigated for the sample as a whole. Correlational analysis revealed a highly significant correlation between anger and antisocial beliefs,
Figure 1 - Relation Between Anger and Antisocial Beliefs for First-time Offenders

Figure 2 - Relation Between Anger and Antisocial Beliefs for Repeat Offenders
In order to ensure that this result was not a function of age, a partial correlation was conducted. The analysis revealed that the strength of the relationship was maintained even after possible effects of age were controlled for, partial $r = .60, p < .0001$.

The next set of analyses was conducted to examine whether there was a correlation between anger and antisocial beliefs for ROs that was not evident for FOs. First, the relation between anger and antisocial beliefs was investigated in the FO sample. No significant association was found, $r = .37, p = .21$. Next, the relation between anger and antisocial beliefs was examined in the RO sample. A significant association was found for the RO group, $r = .65, p = .006$. These findings indicated that the significant correlation between anger and antisocial beliefs in the entire sample (FOs and ROs) was due mainly to the strength of the association within the RO group (see Figures 1 and 2). A reduction of variability in the scatter of scores for repeat offenders was evident; however, it was revealed as a correlation rather than the expected clustering of scores.

The final research question was concerned with differences in anger and antisocial beliefs based on types of offenses. Figures 3 and 4 show subjects' scores by type of offense in the FO and RO groups, respectively. First, the levels of anger and antisocial beliefs were compared for aggressive (AG), non-aggressive (NA), versatile (V), and sexual offenders (SO) in the first-time offenders group, using a Multivariate Analysis of Variance (MANOVA). No significant multivariate effect was found. Second, levels of anger and
Figure 3 - Relation Between Anger and Antisocial Beliefs for First-time Offenders as a Function of Type of Offense

Figure 4: Relation Between Anger and Antisocial Beliefs for Repeat Offenders as a Function of Types of Offenses
antisocial beliefs were compared for aggressive (AG), non-aggressive (NA), and versatile offenders (V) in the repeat offender group, using MANOVA. Again, results indicated no significant multivariate effect.

There were two obvious outliers in the RO group, both with respect to the regression line and their group membership (see Figure 4). These two individuals were females. Moreover, all three females in the RO group were charged for non-aggressive offenses and scored significantly higher than male ROs on the CSS, \( M_{\text{males}} = 21.08, M_{\text{females}} = 41.67, t(2, 14) = 3.10, p = .004. \) Because females seemed to differ from their male counterparts on their patterns of responses on the CSS and in their preferred antisocial behaviour, they were excluded from both the FO and RO groups. It was then possible to examine whether for males, types of offenses differentiated the relation between anger and antisocial beliefs for males alone.

Correlation coefficients were re-calculated for both FO and RO groups to assess whether the relation between anger and antisocial beliefs remained strong for ROs and remained insignificant for FOs when females were excluded from the sample. Indeed, results indicated that there was no significant association between anger and antisocial beliefs in the FO group, \( r = .36, p = .25, N=10, \) as compared to the ROs group, where a highly significant correlation was found, \( r = .75, p = .001, N = 13. \)

Again, two MANOVAs were conducted to investigate whether the types of offenses of male young offenders predicted antisocial beliefs and anger (see Figures 5 and 6). There were no significant multivariate effects
Figure 5 - Relation Between Anger and Antisocial Beliefs for Male First-time Offenders as a Function of Type of Offense

Figure 6: Relation Between Anger and Antisocial Beliefs for Male Repeat Offenders as a Function of Types of Offenses
found for the FO group. Within the RO group, however, aggressive, non-aggressive, and versatile offenders differed significantly at the multivariate level, $F(4, 18) = 4.97, p = .007$. Univariate analyses were then conducted for each dependent variable. First, anger differed significantly among groups, $F(2, 10) = 4.42, p = .04$, and Scheffe post-hoc comparisons revealed significant differences between the means of non-aggressive and versatile offenders. Second, antisocial beliefs differed significantly among groups, $F(2, 10) = 10.67, p = .003$, and Scheffe post-hoc comparisons revealed significant differences between non-aggressive and aggressive offenders as well as between non-aggressive and versatile offenders. Means and standard deviations for ROs on antisocial beliefs and anger are reported by types of offenses in Tables 3 and 4, respectively. In terms of the fourth question posed in this study, these results provide convincing evidence that offense type does mediate levels of anger and antisocial beliefs.
Table 3 - Means and Standard Deviations of Antisocial Beliefs for Repeat Offenders Grouped by Types of Offenses

<table>
<thead>
<tr>
<th>Type</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-aggressive</td>
<td>9.25</td>
<td>4.27</td>
<td>4</td>
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<tr>
<td>Aggressive</td>
<td>28.67</td>
<td>6.51</td>
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<tr>
<td>Versatile</td>
<td>25.17</td>
<td>7.08</td>
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Table 4 - Means and Standard Deviations of Anger for Repeat Offenders Grouped by Types of Offenses

<table>
<thead>
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<th>Type</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-aggressive</td>
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<td>4.32</td>
<td>4</td>
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<tr>
<td>Aggressive</td>
<td>19.00</td>
<td>4.58</td>
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<tr>
<td>Versatile</td>
<td>23.17</td>
<td>5.12</td>
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CHAPTER 4
DISCUSSION

The purpose of this thesis was to examine, from a dynamic systems perspective, the relation between anger and antisocial beliefs in a sample of young offenders. Specifically, this study investigated whether there was a developmental trend towards the crystallization of an antisocial emotional interpretation (EI), characterized by chronic anger and antisocial beliefs. Two questionnaires measuring anger and antisocial beliefs were administered to offenders and the relation between them was examined. First-time offenders were compared to repeat offenders in order to investigate whether repeated exposure to the criminal justice system influenced the development of this antisocial EI.

The study was designed to answer four questions. First, do repeat offenders report higher levels of anger than first-time offenders? Second, do repeat offenders report more antisocial beliefs than first-time offenders? Third, is there a relation between anger and antisocial beliefs that develops for repeat offenders, but is not evident for first-time offenders? Specifically, this third question was concerned with the development of an antisocial EI in repeat offenders. Fourth, do the types of offenses that are committed by these youth differentiate individuals who develop an antisocial EI from those who do not?

Anger and Antisocial Beliefs

The first two hypotheses of the study were that repeat offenders, as compared to first-time offenders, would report more antisocial beliefs and higher levels of anger, respectively. The findings indicated support for the
first hypothesis, but not for the second. First-time offenders did indeed endorse fewer antisocial beliefs than repeat offenders; however, the two groups did not differ on their levels of anger. These results suggest that for the first-time offenders who reported often feeling angry, anger may be related to appraisals that are not antisocial in nature. Youth who have only been charged for one offense have presumably had little exposure to law enforcers and the legal system and, as a result, they may not have had the negative experiences that could lead them to appraise society as unjust. Perhaps their anger is associated with familial rather than societal issues or it may be related to authority figures such as teachers rather than law officials.

**The Development of an Antisocial EI**

The third question focused on the relation between anger and antisocial beliefs. It was expected that an association between anger and antisocial beliefs would be found in repeat offenders, but would not be apparent in first-time offenders. The findings were consistent with this prediction; anger and antisocial beliefs were indeed strongly related in repeat offenders and unrelated in first-time offenders.

Given the lack of association between anger and antisocial beliefs in first-time offenders, these findings indicate the emergence and crystallization of an antisocial EI. When age was controlled for, and the correlation was re-examined in repeat offenders, the strength of the association was maintained. These findings suggest that the developmental nature of the antisocial EI is not a function of age; rather, it seems to be associated with the number of times youths have been exposed to the criminal justice system. For some individuals, repeated experiences with the criminal justice system seems to
increase the likelihood that feelings of anger will become associated with antisocial beliefs.

**Individual Differences**

Although it was hypothesized that a relation between anger and antisocial beliefs in repeat offenders would be found, the particular pattern of association that was revealed was unexpected. Repeat offenders were anticipated to have developed an antisocial EI that was characterized by high levels of anger and the endorsement of numerous antisocial beliefs, hence a clustering of scores was predicted. The strong correlation obtained suggested, rather, that the likelihood that repeat offenders' would report feeling chronically angry was related to the extent to which they reported antisocial beliefs. Thus, for a number of repeat offenders, an antisocial EI was indeed evident, whereas for others, the opposite structural pattern emerged, characterized by low levels of anger and very few antisocial sentiments.

The final question investigated whether individual differences in offense types differentiated patterns of responses on the two instruments. Repeat offenders were grouped according to Loeber's (1987) classification of antisocial behavioural paths. Depending on the types of offenses with which they had been charged, they were labeled as either non-aggressive, aggressive, or versatile offenders.

**Gender Differences**

There seemed to be distinguishable clusters or patterns that emerged when repeat offenders were grouped by their types of delinquent activity; however, no significant differences were revealed for the group as a whole. Upon further inspection, it was clear that two non-aggressive individuals had
reported far more antisocial beliefs than other members of the non-aggressive group and thus differed a great deal in their pattern of responses. These two individuals were females. The only other female repeat offender was also a non-aggressive offender and had likewise reported considerably more antisocial beliefs than all other male, non-aggressive offenders.

Before proceeding to discuss the findings concerning offense types, it may be useful to discuss the gender differences in this sample. The differences found between males and females are interesting for several reasons. Most important seems to be the inconsistency between these results and Shields' (1990) findings with a population of incarcerated youth. He administered the Criminal Sentiment Scale, the same instrument used to measure antisocial beliefs in the present study, to males and females in a youth detention centre. His findings indicated no difference between males and females in terms of the number of antisocial beliefs they held.

The difference between males and females in the current study seems to be inconsistent with this past research. The most probable reason for the discrepancy is the difference between the sample of young offenders who participated in the present study and the one conducted by Shields (1990). The youth in the current study were court-referred to the Family Court Clinic for an assessment of their needs and possible dangerousness. The majority of these youth were not considered seriously dangerous to society and, therefore, were unlikely to be recommended for placement in a detention centre. In contrast, Shields' sample of young offenders had already been deemed extremely antisocial, to the degree that they had to be separated from society. Thus, it seems that in terms of antisocial beliefs, gender differences among
serious, incarcerated repeat offenders do not exist, whereas for less serious offenders, gender may be a moderating factor.

Moffitt’s (1993) distinction between life-course persistent versus adolescence-limited antisocial behaviour may also be important in understanding the gender differences found in the present study. When official rates of crime are plotted against age, the rate of offending for boys peaks dramatically at age 17 and drops equally sharply in young adulthood (Moffitt, 1993; Farrington, 1990). The actual rate of delinquent acts increases enormously during adolescence, so much so that Moffitt (1993) was moved to suggest that “participation in delinquency appears to be a normal part of teen life” (p. 675). It is important to note, however, that the majority of criminal behaviour is committed by males (Andrew & Bonta, 1992) and as a result, Moffitt’s statement is based on studies that have primarily been conducted on males. Perhaps because it is far from normative for females to participate in delinquent acts, those that do may be more impaired than their male counterparts. Therefore, it seems reasonable that females in the present study endorsed considerably more antisocial beliefs than males.

It is interesting to note that although females endorsed more antisocial beliefs than males, they were not higher on their levels of anger. Anger does not seem to be associated with girls’ antisocial beliefs. Perhaps females’ extreme antisocial beliefs are associated with feelings of depression and helplessness, rather than anger; this possibility is a speculative one that remains open to empirical investigation.

**Differences based on offense types**

Because females seemed to be consistent in reporting a different pattern of responses, compared to their male, non-aggressive counterparts, they were
excluded from the remaining analyses. The fourth research question concerning the relation between offense types and the development of an antisocial EI could then be re-examined in males only. Results suggested that it was the versatile and aggressive repeat offenders who had developed an antisocial EI. Non-aggressive repeat offenders, on the other hand, did not report feeling angry, nor did they report having antisocial beliefs. These findings suggest that the development of an antisocial EI, characterized by high levels of anger and antisocial sentiments, is related to youths' propensity to repeatedly engage in aggressive criminal acts.

In summary, there seems to be evidence for the crystallization of an antisocial EI that emerges through repeated exposure to the criminal justice system. This antisocial EI seems to emerge and stabilize only for individuals who tend to engage in aggressive and versatile types of delinquent acts. They seem to appraise the world as hostile and unjust and this understanding of their environment is associated with feelings of anger.

Implications for Research on Anger and Delinquency

Results obtained from the current study have several implications for research on anger and delinquency as well as for Lewis' developmental theory. Empirically, the present findings extend three major areas of research. First, the association between anger and antisocial beliefs in repeat offenders is consistent with several other studies (e.g., Ford, 1991; Mizes, Morgan, & Buder, 1990; Hart et al., 1991; Hazaleus & Deffenbacher, 1985) that have found a relation between anger and irrational beliefs. This study elaborates upon these findings by specifying the type of irrational beliefs (i.e., antisocial) that interact with anger in a specific population, namely aggressive and versatile
repeat offenders. Moreover, the present results extend the work of researchers who have investigated anger and irrational beliefs in Type A personalities (e.g., Yuen & Kuiper, 1991; Price, 1982). It was found that aggressive and versatile repeat offenders are similar to individuals with Type A personalities in that their anger is associated with cynical, distrusting beliefs such as the belief that justice does not prevail.

A second area of research that is extended by this study's findings, is the work on the relation between anger and aggression, conducted primarily by Averill (1993). He suggests that although anger does not cause aggression directly, it does make aggression more likely to occur. The current evidence indicating that only aggressive and versatile offenders report the propensity to feel chronically angry supports Averill's contention. Furthermore, the present research adds to Averill's conceptualization of the relation between anger and aggression by identifying antisocial beliefs as intervening cognitive factors that are likely to facilitate aggressive solutions.

Additional evidence for the validity of Loeber's (1987) classification of offenders based on antisocial behavioural pathways is a third way in which the current findings meaningfully contribute to delinquency research. Understanding the diversity of the young offender population in terms of Loeber's subtypes provided a richer portrait of the conditions in which an antisocial EI can develop. The findings suggested that Loeber's offender subtypes differentiated between offenders who developed an antisocial EI (aggressive and versatile) from those who did not (non-aggressive). According to Loeber's descriptive model of antisocial developmental pathways, it is the versatile and aggressive youth who have the worst
prognosis for reoffending. The present results suggest that the development of an antisocial EI may, in part, influence this antisocial trajectory.

Implications for Lewis' Theory of Self-organizing Personality Development

In addition to the implications for research on anger and delinquency, there are also implications for Lewis’ model of personality development. This thesis approached the examination of antisocial beliefs in young offenders from the perspective of self-organizing personality development. This theoretical framework offered a novel lens through which to investigate a commonly cited risk factor associated with delinquency. By incorporating the premises of Lewis' developmental theory (1995, in press), several limitations of conventional risk research were addressed. As a result, a number of new insights into the mechanisms by which antisocial beliefs emerge and stabilize through development were gained.

First, Lewis' theory shifts the focus of research from the outcome, namely criminal offending, to the mechanisms that contribute to delinquent tendencies. Lewis specifies that it is the interwoven cognitive and emotional systems that are the underlying mechanisms that influence psychological development. Second, the model is concerned with the interrelations among systems--specifically the interaction of cognition and emotion--rather than isolating single factors. Finally, Lewis emphasizes the importance of understanding individual differences by modeling variability and change in personality development. This is in contrast to conventional approaches to research that attempt to generalize and reduce the variability in psychological phenomena.
Incorporating the principles of Lewis' model into the study of delinquency led to the hypothesis that antisocial beliefs are not independent cognitive structures that influence delinquent behaviour. Instead, the emergent pattern of interactions between emotion--specifically, anger--and the coupled cognitive elements that constitute antisocial beliefs was the focus of investigation. Results from this study support Lewis' notion that emotional interpretations are characterized by two types of coupling: cognitive coupling and emotion-cognition coupling. Recall that cognitive coupling refers to the cohesion of semantically consistent appraisal elements (Lewis, 1995). Aggressive and versatile repeat offenders consistently reported a high number of antisocial beliefs ranging from the beliefs that the police are unfair and the courts cater to rich people to the notions that criminals are sometimes justified in their acts and breaking the law is rewarding. These offenders seem to have developed an antisocial script about the unjust nature of societal rules and the adults who enforce them. The extent to which unjust appraisals of the legal system and positive appraisals of criminal behaviour have cohered into a stable interpretation of the world for versatile and aggressive offenders seems to imply that cognitive coupling has occurred. But most important, this cognitive coupling was linked with high levels of emotion. For versatile and aggressive repeat offenders, high levels of anger were associated with the reporting of many antisocial beliefs. These findings suggest that through development, the cognitive elements of their antisocial scripts have become coupled with feelings of anger. Although there is no direct evidence for cognition-emotion coupling, the co-occurrence of particular beliefs with a compatible emotion is consistent with this notion.
Alternatively, non-aggressive repeat offenders were found to be both low in anger and to endorse a minimal number of antisocial beliefs. Instead of an antisocial EI, these individuals may have different emerging emotional interpretations that influence their personality development. For example, it is possible that instead of being chronically angry, repeat, non-aggressive offenders are more likely to feel depressed. Perhaps their feelings of sadness have coupled with appraisals of being unwanted or unloved. According to Loeber (1990), non-aggressive individuals usually engage in criminal behaviour with delinquent peers. It may be that these youth are engaging in delinquent acts in order to gain acceptance from their peers. For these adolescents, the emotion of sadness may be unrelated to hostile appraisals of society; instead, their sadness may correspond to negative appraisals of themselves. In terms of Lewis' model of self-organizing development, non-aggressive repeat offenders may have developed different patterns of emotional interpretations. The EIs that characterize non-aggressive offenders have emerged from developmental trajectories that differ from those of aggressive offenders and may further constrain their developing personalities in different ways.

Limitations and Future Research Directions

There are a number of limitations to the present study that future research in the area may be able to address. An important one is the small sample size. As a result of intake procedures, only a small number of young offenders could be included in this study. Because small samples are a less reliable estimate of the population as a whole, it is important to keep the sample in mind when attempting to generalize to the larger population of
young offenders. It is, however, doubtful that the evidence for an antisocial EI in repeat offenders would disappear altogether in a larger sample. In order to confidently assert the validity of the current findings, it is important to conduct further studies that can replicate these results in a larger sample.

A second limitation to the current project is the lack of equal representation of all types of offenders in both the first-time and repeat offender groups. There were three sexual offenders included in the first-time offender group, whereas none were represented in the repeat offender group. It is possible that the lack of meaningful relation between anger and antisocial beliefs in first-time offenders was due to some unique characteristics of sexual offenders. Sexual offenders were not grouped with aggressive offenders because none of the sexual offenders had committed rape or similar assaultive offenses. Instead, sexual offenders in this sample had been charged with harassment and inappropriate touching. These types of offenses did not seem to be clearly indicative of an aggressive act such as threatening with a weapon or assault.

Very little research has been conducted with sexual offenders; it therefore remains unclear whether this sub-type of offender is similar to any of the others described by Loeber (1987) or whether it is a qualitatively different group. It would be worthwhile to investigate if repeat sexual offenders exhibit the same pattern of interaction between anger and antisocial beliefs as any of Loeber’s three subtypes. It is possible that individuals who commit numerous sexual offenses and are violent in these acts share many of the characteristics of aggressive offenders, including the development of an antisocial EI. Because there were no repeat sexual offenders referred to the clinic, examining this possibility was beyond the scope of this study.
A third limitation to the current study is one that most cross-sectional investigations share. Although the differences found between first-time offenders and repeat offenders is suggestive of a developmental trend towards the stabilization of an antisocial EI, it is important to note that the two offender groups are separate samples. As such, conclusions about the emergence of the antisocial EI as a developmental process cannot be made definitively. In addition, there is evidence that an antisocial EI does exist for aggressive and versatile offenders who have had repeated exposure to the criminal justice system. The question of whether this antisocial EI emerged previous to these youths' offending and, in part, caused them to repeatedly offend or whether repeated arrests caused the development of an antisocial EI cannot be answered definitively from the current findings. It is possible that the first-time offenders will never develop an antisocial EI and it is only offenders who have developed this EI prior to getting arrested who will tend to repeatedly offend.

Although the developmental difference seems convincing, the interpretation of cross-sectional data must be made cautiously. Longitudinal studies need to be conducted to confirm the cross-sectional evidence obtained in this research. Specifically, it is important to design studies that identify samples of aggressive and versatile first-time offenders and examine the developing relation between anger and antisocial beliefs in these youth for several years. A portion of these youth will inevitably reoffend, and if it is found that an antisocial EI emerges through the years for these offenders, the developmental nature of this emotion-cognition personality structure will have been confirmed.
A final note about the design of the study is necessary. A caveat commonly put forth in many correlational studies is the acknowledgment that causality cannot be inferred from the results obtained. This is true for the current examination as well; however, because this study approached the investigation of anger and antisocial beliefs from a perspective of self-organizing personality development, there was a basic assumption that neither anger nor antisocial beliefs was primary in a causal sequence. The current results confirmed that the two mechanisms were indeed related and might have formed a coherent psychological structure for aggressive and versatile offenders. However, the existence of such a structure, and the precise process by which anger and antisocial beliefs might interact to form it, remain unclear. This study focused on the first step of identifying a potential antisocial EI that may have crystallized for some young offenders through development. Lewis' suggestion that such an EI emerges through a process of iterative feedback loops cannot be confirmed or disproved by the present study. The moment-to-moment process by which anger and antisocial beliefs influence each other and thus converge in an antisocial EI needs to be examined explicitly--a compelling task for future study.


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Part 1 Directions

A number of statements that people use to describe themselves are given below. Read each statement and then fill in the circle with the number which indicates how you feel right now. Remember that there are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to best describe your present feelings.

Fill in 1 for Not at all  
Fill in 2 for Somewhat  
Fill in 3 for Moderately so  
Fill in 4 for Very much so

How I Feel Right Now

1. I am furious.
2. I feel irritated.
3. I feel angry.
4. I feel like veiling at somebody.
5. I feel like breaking things.
6. I am mad.
7. I feel like banging on the table.
8. I feel like hitting someone.
9. I am burned up.
10. I feel like swearing.

Part 2 Directions

A number of statements that people use to describe themselves are given below. Read each statement and then fill in the circle with the number which indicates how you generally feel. Remember that there are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to best describe how you generally feel.

Fill in 1 for Almost never  
Fill in 2 for Sometimes  
Fill in 3 for Often  
Fill in 4 for Almost always

How I Generally Feel

11. I am quick tempered.
12. I have a fiery temper.
13. I am a hotheaded person.
14. I get angry when I'm slowed down by others' mistakes.
15. I feel annoyed when I am not given recognition for doing good work.
16. I fly off the handle.
17. When I get mad, I say nasty things.
18. It makes me furious when I am criticized in front of others.
19. When I get frustrated, I feel like hitting someone.
20. I feel infuriated when I do a good job and get a poor evaluation.
Part 3 Directions

Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel angry or furious. Read each statement and then fill in the circle with the number which indicates how often you generally react or behave in the manner described when you are feeling angry or furious. Remember that there are no right or wrong answers. Do not spend too much time on any one statement.

Fill in 1 for Almost never   Fill in 3 for Almost always
Fill in 2 for Sometimes   Fill in 3 for Often

When Angry or Furious...

21. I control my temper.
22. I express my anger.
23. I keep things in.
24. I am patient with others.
25. I pout or sulk.
26. I withdraw from people.
27. I make sarcastic remarks to others.
28. I keep my cool.
29. I do things like slam doors.
30. I boil inside, but I don’t show it.
31. I control my behavior.
32. I argue with others.
33. I tend to harbor grudges that I don’t tell anyone about.
34. I strike out at whatever infuriates me.
35. I can stop myself from losing my temper.
36. I am secretly quite critical of others.
37. I am angrier than I am willing to admit.
38. I calm down faster than most other people.
39. I say nasty things.
40. I try to be tolerant and understanding.
41. I’m irritated a great deal more than people are aware of.
42. I lose my temper.
43. If someone annoys me, I’m apt to tell him or her how I feel.
44. I control my angry feelings.
APPENDIX B
Listed below are statements concerning individuals attitudes and beliefs about laws and the legal system. Please indicate whether you Agree (A), are Undecided (U) or Disagree (D) with each statement.

<table>
<thead>
<tr>
<th>LAW</th>
<th>1. Pretty well all laws deserve our respect</th>
<th>2. It's our duty to obey all laws</th>
<th>3. Laws are usually bad</th>
<th>4. The law is rotten to the core</th>
<th>5. You cannot respect the law because it's there only to help a small and selfish group of people</th>
<th>6. All laws should be obeyed just because they are laws</th>
<th>7. The law does not help the average person</th>
<th>8. The law is good</th>
<th>9. Law and justice are the same thing</th>
<th>10. The law makes slaves out of most people for a few people on top</th>
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</thead>
<tbody>
<tr>
<td>A</td>
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</table>

<table>
<thead>
<tr>
<th>COURTS</th>
<th>11. Almost any jury can be fixed</th>
<th>12. You cannot get justice in court</th>
<th>13. Lawyers are honest</th>
<th>14. The crown often produces fake witnesses</th>
<th>15. Judges are honest and kind</th>
<th>16. Court decisions are pretty well always fair</th>
<th>17. Pretty well anything can be fixed in court if you have enough money</th>
<th>18. A judge is a good person</th>
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<tbody>
<tr>
<td>A</td>
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<table>
<thead>
<tr>
<th>POLICE</th>
<th>19. The police are honest</th>
<th>20. A cop is a friend to people in need</th>
<th>21. Life would be better with fewer cops</th>
<th>22. The police should be paid more for their work</th>
<th>23. The police are as crooked as the people they arrest</th>
<th>24. Society would be better off it there were more police</th>
<th>25. The police almost never help people</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<th>TLV</th>
<th>26. Sometimes a person like me has to break the law to get ahead in life</th>
<th>27. Most successful people broke the law to get ahead in life</th>
<th>28. You should always obey the law, even if it keeps you from getting ahead in life</th>
<th>29. It's OK to break the law as long as you don't get caught</th>
<th>30. Most people would commit crimes if they knew they wouldn't get caught</th>
<th>31. There is never a good reason to break the law</th>
<th>32. A hungry man has the right to steal</th>
<th>33. It's OK to get around the law as long as you don't actually break it</th>
<th>34. You should only obey those laws that are reasonable</th>
<th>35. You're crazy to work for a living if there's an easier way, even if it means breaking the law</th>
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<tr>
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<th>ICO</th>
<th>36. People who have broken the law have the same sorts of ideas about life as me</th>
<th>37. I prefer to be with people who obey the law rather than people who break the law</th>
<th>38. I'm more like a professional criminal than like people who break the law only now and then</th>
<th>39. People who have been in trouble with the law are more like me than people who don't have trouble with the law</th>
<th>40. I have very little in common with people who never break the law</th>
<th>41. No one who breaks the law can be my friend</th>
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