Differences in Personality and Patterns of Recidivism Between Early Starters and Other Serious Male Offenders

Xiaojia Ge, PhD, M. Brent Donnellan, PhD, and Ernst Wenk, M. Crim.

In this study, the differences in personality and patterns of recidivism were compared between individuals with an early incidence of offending ("early starters") and their later-starting counterparts ("later starters"). Results indicated that early starters were significantly different from later starters in several personality characteristics, as measured by the California Personality Inventory (CPI) and the Minnesota Multiphasic Personality Inventory (MMPI). Specifically, early starters scored lower on the responsibility and socialization scales of the CPI and higher on the paranoia, schizophrenia, and hypomania scales of the MMPI. Moreover, results indicated that early starters were at a significantly higher risk for recidivism than later starters, both at a 15-month and a 20-year follow-up.


The destructive consequences produced by a relatively small number of chronic offenders have long been a serious concern for scholars.1–4 Recently, there has been increased attention paid to the salience of an early onset of delinquency and to the role of individual differences in the development of chronic offending. Prominent in research of this orientation are the developmental taxonomy of Moffitt5 and the early-starter model of Patterson et al.6,7 These investigators converge on the importance assigned to an early onset of delinquency as a predictor of life-long criminality and assert that early starters are more likely to become persistent offenders than are later starters.

One of the strongest predictors of persistent offending involves an early age at first arrest.1,8–13 In a comprehensive review, Loeber and LeBlanc10 showed that a relatively early onset of antisocial behavior predicts a long and seriously antisocial career. For example, age at onset of delinquency was strongly related to the number offenses committed in adulthood in two Philadelphia birth cohorts.14,15 In their analyses of the Gluecks’ classic data, Sampson and Laub16 found that boys who were delinquent during childhood were three to four times more likely than nondelinquent boys to commit crimes during adulthood.

Patterson17 argued that extremely antisocial boys who were identifiable at an earlier age were more socially disruptive and were at a significantly higher risk for persistent offending as an adult. Indeed, Patterson et al.7 have shown that extremely antisocial boys in fourth grade were significantly more likely to have a first police contact at younger ages and were at greater risk for recidivism. More recently, Patterson et al.12 reported that only 6 of 53 individuals with an early arrest had not been identified as antisocial boys and only 11 of the 51 chronic offenders had not been early starters in their samples.

Early Starters and Personality Differences

Although there is an increasing recognition of the importance of early starting in persistent criminal offending, relatively little is known about the personalities of early starters. Central to the theories of both Patterson17 and Moffitt5 is the role assigned to individual differences in antisocial tendency. Both of these theorists trace the antecedents of an early onset of delinquency to variations in individual character-
istics. For example, Moffitt asserts that a major reason that early starting predicts a life-course-persistent offending is because of the early starter’s deficient self-control as indicated by impulsivity, risk-taking, and difficulties in delaying gratification. Thus, it is likely that early starters and later starters differ in their personalities, an important area of individual differences.

Crime and delinquency have long been related to personality dispositions (although this relation has been criticized). For example, Caspi et al. and Krueger et al. linked delinquent behavior to personalities that were high in negative emotionality and low in constraint. The crime-prone personality, according to Caspi et al., was marked by poor impulse control and the tendency to experience hostility and other distressing emotions. Similarly, John et al. found that delinquent boys had significantly lower scores on the personality factors of agreeableness and conscientiousness when compared with nondelinquent boys.

Collectively, the results from the literature on the connection between personality and crime suggest that there are differences in personality between the people who commit crimes and those who refrain from crime. However, the differences in personalities between early and later starters are not as well understood. One objective of this study was to explore these differences.

Early Starters and Patterns of Recidivism

Several developmentally oriented theorists maintain that early starters are disproportionately more likely to become persistent offenders. For example, Patterson et al. demonstrated that those adolescents who had their first police contact before age 15 were at a higher risk for chronic offending, both as juveniles and as adults. The significant relation between age at onset and persistent offending has also been reported in data collected in Europe.

Despite recognition of the importance of the timing of delinquency in the development of persistent offending, most existing studies have been limited to the years of adolescence. Very few studies have explored the significance of an early onset of delinquency in the continuation of criminal behavior past young adulthood. We are aware of very few studies that have linked early antisocial behavior to later adult crime and thus truly examined the life-course significance of an early start to offending.

Present Study

The present study had two purposes: to examine differences in personality between early and later starters and to contrast their patterns of recidivism by using both a short- and a long-term follow-up. We sought to achieve these goals by using data from a 20-year longitudinal study of 4,146 incarcerated adolescent offenders admitted to the California Youth Authority (CYA). These adolescents were first assessed with a comprehensive personality assessment between 1964 and 1965 during their intake by the CYA. A 20-year arrest record follow-up was obtained in 1984 and 1985.

We predicted that there would be significant differences between early and later starters on two widely used measures of personality: the California Personality Inventory (CPI) and the Minnesota Multiphasic Personality Inventory (MMPI). We predicted that early starters would score lower on the CPI scales designed to measure normative orientation and values than would later starters. The significant body of research and theory that suggests that criminality is related to an individual’s values, conventionality, and self-control informs this prediction. This includes the work that relates criminality to diminished self-control, inadequate socialization, and insufficient social bonding.

We also predicted that early starters would score lower on the CPI scales that measured self-perceptions of cognitive and intellectual functioning, because early starters should perceive themselves as less intellectually capable than their later-starting peers. This prediction is informed by a body of research and theory that links actual cognitive abilities to crime. Indeed, some of our own work on this sample indicates a link between crime and cognitive ability. We made no other specific predictions for the other CPI scales, and these analyses should be viewed as strictly exploratory.

On the MMPI, we predicted that early starters would score higher on the scale that measures psychopathic deviance than would later starters. This scale was designed to measure psychopathic responses that have been implicated in crime and delinquency. Moreover, we generally expected early starters to score higher on many of the MMPI scales, because they might be more likely to have elevated levels of personality disturbance than later starters. We did not make specific predictions for
these other scales, and these analyses should also be regarded as exploratory.

In terms of differences in patterns of recidivism between early and later starters, we predicted that early starters would be more likely to reoffend and thus to be rearrested sooner than their later-starting counterparts. This hypothesis is in line with the previously reviewed literature linking early starting and persistent offending. In the present study, we tested these predictions with both a short-term (15-month) and a long-term (20-year) follow-up of offenders. Finally, given the general assumption that early starters have a more serious criminal career, we predicted that early starters would be arrested more frequently than later starters over the course of our study.

Methods

Sample and Procedures

The data used in this investigation were part of a larger study designed to examine the criminal career patterns of violent offenders.37 The authors received approval (Protocol ID: 993734) from the University of California, Davis, Institutional Review Board to conduct secondary analysis on the existing data. Data were collected on a total sample of 4,146 adolescent male offenders who were committed to the Reception Guidance Center at the Dual Vocational Institution (DVI) in Tracy, California, between January 1964 and December 1965. The DVI was a facility operated by the CYA and was designed to provide treatment, education, and training to the oldest CYA wards during that time. Of these 4,146 youths, 1,078 (26%) were African-American, 2,214 (53.4%) were white, 773 were Hispanic (18.6%), and 81 (2%) were of other ethnic backgrounds. The average age (±SD) of the youthful offenders at reception by the DVI was 18.98 ± 0.98 years (range: 16 –24). Many of these youthful offenders were first arrested several years before their reception at the DVI (average age at first arrest, 16.92 ± 2.00 years; range: 9.00 –23.80).

Of these 4,146 youthful offenders, 2,790 (approximately 67% of the sample) had complete CPI scores and were classifiable as early or later starters. The CPI protocols were scored by a professional testing service, and raw CPI scores are reported for all analyses.

Classification of Early and Later Starters

We first divided our sample into early and later starters based on their ages at first arrest. We classi-
fied those offenders who were first arrested before age 15 into the early-starters group because age 15 has been discussed as an important line of demarcation for early starters. All other offenders were classified as later starters. Under this system we classified 599 individuals (approximately 14.45% of the sample) as early starters and the other 3,547 individuals (approximately 85.55% of the sample) as later starters.

Results

What Are the Personality Differences Between Early and Later Starters?

We conducted a series of t tests comparing early and later starters on the 20 folk scales of the CPI and the 10 clinical scales of the MMPI. The results of these analyses, along with the effect sizes for the differences, are reported in Table 3. Overall, we conducted 30 separate t tests, and concerns could be raised about an increased probability of Type I errors. To address this concern, we performed a Bonferroni correction by dividing the α level of .05 by 30 (the

<table>
<thead>
<tr>
<th>Table 1 Description of CPI Folk Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folk Scale</td>
</tr>
<tr>
<td>Measures of poise, self-assurance, and interpersonal proclivities</td>
</tr>
<tr>
<td>Cs: capacity for status</td>
</tr>
<tr>
<td>Do: dominance</td>
</tr>
<tr>
<td>Em: empathy</td>
</tr>
<tr>
<td>In: independence</td>
</tr>
<tr>
<td>Sa: self-acceptance</td>
</tr>
<tr>
<td>Sy: sociability</td>
</tr>
<tr>
<td>Sp: social presence</td>
</tr>
<tr>
<td>Measures of normative orientation and values</td>
</tr>
<tr>
<td>Cm: communality</td>
</tr>
<tr>
<td>Gi: good impression</td>
</tr>
<tr>
<td>Re: responsibility</td>
</tr>
<tr>
<td>Sc: self-control</td>
</tr>
<tr>
<td>So: socialization</td>
</tr>
<tr>
<td>To: tolerance</td>
</tr>
<tr>
<td>Wb: well-being</td>
</tr>
<tr>
<td>Measures of cognitive and intellectual functioning</td>
</tr>
<tr>
<td>Ac: achievement via conformance</td>
</tr>
<tr>
<td>Ai: achievement via independence</td>
</tr>
<tr>
<td>Ie: intellectual efficiency</td>
</tr>
<tr>
<td>Measures of role and personal style</td>
</tr>
<tr>
<td>Fx: flexibility</td>
</tr>
<tr>
<td>Fe: masculinity/femininity</td>
</tr>
<tr>
<td>Py: psychological mindedness</td>
</tr>
</tbody>
</table>

All descriptions are modified from Ref. 40 (pp 12 and 13 therein).

<table>
<thead>
<tr>
<th>Table 2 Description of MMPI Clinical Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
</tr>
<tr>
<td>Hypochondriasis (Hs)</td>
</tr>
<tr>
<td>Depression (D)</td>
</tr>
<tr>
<td>Hysteria (Hy)</td>
</tr>
<tr>
<td>Psychopathic deviant (Pd)</td>
</tr>
<tr>
<td>Masculinity/femininity (Mf)</td>
</tr>
<tr>
<td>Paranoia (Pa)</td>
</tr>
<tr>
<td>Psychasthenia (Pt)</td>
</tr>
<tr>
<td>Schizophrenia (Sc)</td>
</tr>
<tr>
<td>Hypomania (Ma)</td>
</tr>
<tr>
<td>Social introversion (Si)</td>
</tr>
</tbody>
</table>

All descriptions are modified from Ref. 43.
The resulting critical probability was rounded to .002. Using this relatively conservative criterion, 5 of the 30 personality differences were judged statistically significant: the socialization and responsibility scales of the CPI and the paranoia, schizophrenia, and hypomania scales of the MMPI.

On the CPI, there were significant differences between early and later starters on two of the seven scales designed to measure normative orientation and values. This was consistent with our general prediction. Thus, it appears that early starters are less socially responsible and more prone to rule breaking than later starters. It is useful to note that the observed effect sizes for these differences were relatively modest ($d = 0.23$ for the responsibility scale and $d = 0.30$ for the socialization scale). This result should not be surprising, because smaller effect sizes are typical in research concerning multiply influenced behavior such as criminal involvement.\(^{44}\) Contrary to our prediction, however, we found no evidence of statistically significant differences on the CPI scales designed to measure cognitive and intellectual functioning.

There were statistically significant differences on 3 of the 10 MMPI scales. Compared with later starters,
it appears that early starters were more paranoid, more prone to bizarre thoughts and feelings, and more excitable and emotional. This result confirms our general prediction that early starters have more disturbed personalities than later starters. Similar to these results, the effect sizes were relatively small ($d$ range: 0.19–0.21). Contrary to our prediction, we found no evidence of a statistically significant difference between the two groups on the psychopathic deviance scale.

**Do Early Starters Have a Different Pattern of Recidivism Than Later Starters?**

Figure 1 presents survival curves for the early and later starters based on the 15-month follow-up. The horizontal axis represents the number of months after release. The vertical axis represents percentage of the subjects who had their paroles from the DVI suspended (presumably because they committed a criminal act). As shown in Figure 1, by the end of six months after release, approximately 16 percent of the early starters had their paroles suspended compared with less than 11 percent of the later starters. By the end of 12 months since release, approximately 29 percent of the early starters had their paroles suspended compared with 20 percent of the later starters. By the end of 15 months, approximately 34 percent of early starters had their paroles suspended compared with 23 percent of the later starters. The chi-square statistic for the Wilcoxon test was 37.63 ($df = 1, p < .05$), suggesting that recidivism rates of early starters were significantly higher than those of their later-starting counterparts. The estimation of the Cox regression model indicated that the hazard ratio was 1.40 ($p < .05$), meaning that early starters had their paroles suspended 40 percent sooner than later starters.

Figure 2 presents survival curves for early and later starters based on a total of 53,538 arrests of individuals in the study sample from the 20-year follow-up. Time to failure was calculated by subtracting an individual's date of first arrest after release from a correctional facility from the date of last release. The results showed that the average time to get rearrested for early starters was 17.24 ($SD = .31$) months. This was in sharp contrast to the average time of 28.45 ($SD = .37$) months for the later starters. In other words, it took the average early starter less than one year, six months after release to be rearrested, whereas it took more than two years, four months for the average later starter to be rearrested. This difference was represented by a hazard ratio of 1.09. That is, in the same time frame after release, nine percent more early starters would be rearrested compared with their later-starting counterparts. The chi-square statistic from the Wilcoxon test was 68.27 ($df = 1, p < .05$), suggesting that early starters were rearrested significantly more quickly than later starters. More technical details of the survival analyses are available from the first author.

As a final contrast between early and later starters, we compared the two groups on their total frequencies of arrest over the 20-year duration of our study. Early starters had an average of approximately 19 arrests (mean, $19.18 \pm 10.31$ [SD]) whereas later starters had an average of approximately 12 arrests (mean, $12.16 \pm 10.07$). This difference was statistically significant at $p < .05$ ($t = 15.83$) and indicates that early starters were arrested more often than later starters.
starters. Moreover, the mean difference of 7.02 arrests translated into an effect size of .69, which is often interpreted as a medium-to-large effect.

Discussion

The first purpose of the present study was to examine personality differences between early and later starters. Indeed, our investigation is among the first to provide evidence of personality differences between these two groups. Moreover, we obtained these results using relatively stringent criteria. Based on our findings, it appears that the exploration of personality differences between early and later starters is a fruitful avenue of inquiry.

In our analyses of data taken from the CPI, we found that there were significant differences between early and later starters on two of the scales designed to measure normative orientation and values (the CPI scales of Re and So, Table 1). This finding is consistent with the theoretical traditions within criminology that posit that weak social bonding, irresponsibility, and the rejection of a set of values concerning prosocial behavior are important correlates of criminal behavior.6,22,30,31 Our findings extend this body of literature by suggesting that early starters score significantly lower than later starters in these aspects of personality.

We did not find conclusive evidence for a difference between early and later starters on the CPI scales designed to measure perceptions of cognitive and intellectual functioning. This was somewhat surprising, because previous research has implicated cognitive abilities in crime and delinquency.5,32,33 Although the differences were in the expected direction for the Ie and Ac scales (Table 1), they failed to reach statistical significance after the Bonferroni correction. One possibility is that the differences between the two groups in their perceptions of intellectual functioning are not as pronounced as their differences in actual cognitive abilities. Thus, actual measures of intellectual abilities are probably better than measures of perceptions of those abilities in assessing the role of cognitive abilities in crime. However, future research should clarify this finding.

In terms of personality differences on the MMPI, a measure of abnormal personality, we found that early starters had higher scores on 3 of the 10 scales. It appears that early starters are more paranoid, have more bizarre thoughts and feelings, and are more emotional than later starters. These findings are con-
sistent with the notion that early starters are more prone to psychological disturbances. Furthermore, the general finding of higher scores for early starters on the scale designed to measure hypomania is consistent with previous research indicating that criminal populations score higher on that dimension.45

The second purpose of our study was to contrast the patterns of recidivism of early and later starters by using both a short- and a long-term follow-up of offenders. Consistent with the theoretical suggestion put forth by Moffitt5 and Patterson,6,7,17 early starters were at a significantly higher risk for recidivism than those whose first arrest occurred after the age of 15. This difference in risk for reoffending was evident in both the short-term (i.e., the 15-month) and long-term (i.e., the 20-year) follow-ups. We also found that early starters were arrested more frequently over the course of our study than later starters. The current study is among the first that we are aware of that has reported on the 20-year records of recidivism for early and later starters and thus contributes to the growing literature on the importance of the distinction between early and later starters.

It is worth considering the practical significance of the finding that early starters are quicker to reoffend and have more arrests over the course of their lives than later starters. Recall that early starters had an average of approximately 19 arrests over the course of this study. If these arrests represent crimes that involve victims and/or financial losses, then it can be argued that early starters are a major cost to society in both human and financial terms. Viewed in this light, prevention and treatment of early-start offending is a pressing need that could provide major benefits to society.

Some Theoretical Considerations

Based on our results, the salient question becomes what makes someone an early starter. Although the answer to this question is undoubtedly complicated, Moffitt5 and Patterson and associates6,7,17 have provided two of the most elaborate accounts of the plausible criminogenic factors leading to an early start to criminal behavior. Moffitt5 distinguishes between adolescence-limited and life-course-persistent antisocial behavior. Youths exhibiting adolescence-limited behavior become antisocial during adolescence, in part, by mimicking the behavior of their deviant peers. The delinquent career of these individuals, however, tends to be of short duration because of the lack of personal predisposition for committing crimes. In contrast, individual exhibiting life-course-persistent antisocial behavior are early starters who continue their destructive ways across adulthood because of a personal predisposition toward antisocial behavior.

At the core of her account of life-course-persistent offending is a concept that Moffitt5 terms neuropsychological deficit. According to Moffitt, life-course-persistent offenders have neuropsychological impairments that lead to deficient self-control. This lack of self-control or antisocial tendency in turn disrupts normal parenting practices and makes these individuals more susceptible to criminogenic social environments. Thus, one reason why an early onset of offending continues through adolescence to adulthood is that early starters have neurologically based tendencies to engage in antisocial behavior that have been reinforced and elaborated by criminogenic environments. A series of investigations conducted by Moffitt and colleagues has supported these predictions. Moffitt has argued that tests of cognitive ability are a good index of neuropsychological deficits, and an earlier study published from the current data34 demonstrated that, at least in European- and Hispanic-American males, life-course-persistent offenders score lower on measures of cognitive ability than adolescence-limited offenders.

Patterson et al.6,7 offers a more strictly social learning account of the development of antisocial behavior. Similar to Moffitt’s5 theory, however, is the notion of two major paths to delinquent behavior: one for early starters and the other for later starters. The more serious antisocial problems of early starters are more likely a result of disrupted parenting, whereas the problems of later starters are more likely a consequence of negative peer influences. According to the early-starter model of Patterson et al.,6,7 disrupted parenting practices, chiefly inconsistent discipline and lack of monitoring, are significant predictors of the age of onset of delinquency. A lack of family management skills on the part of parents provides a direct training ground for the development of antisocial tendencies, such as a lack of self-control, irresponsibility, social disruption, and deviance. This antisocial trait, then, generalizes to other settings, such as school and peer relations.11 In contrast, later starters do not have this strongly reinforced antisocial trait and thus exhibit more transitory delinquency. Given that both Moffitt and Patterson implicate the
family in the development of early starting, future work should be oriented toward the further examination and amelioration of those factors in family environments that promote an early initiation into delinquency and crime.

**Research Limitations**

A few caveats should be noted when considering the findings we have reported. The first is that we measured personality with only two instruments, the CPI and the MMPI. Although these instruments are widely used and measure a broad and diverse set of both normal and abnormal personality dimensions, they are not the only measures of personality. Future work should compare early and later starters on other personality measurements, most notably instruments designed to tap the Big Five (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience).\(^{27}\) We wish to stress that many of the specific findings in this study should be viewed in light of the exploratory nature of the data analysis and require replication before firm conclusions are drawn concerning the personalities of early starters. Moreover, the effect sizes we obtained were not large. There is clearly more to early starting than just personality differences. It is also possible that there are larger personality differences between criminals and noncriminals than between different types of criminals.

Another caveat is that our arrest record follow-ups only included arrests that occurred in California. It is possible that this method overlooks some out-of-state arrests. It is not unreasonable, however, to assume that most of the individuals in this sample stayed in California for lengthy periods because of their limited resources and the large size of the state. In fact, because of financial and logistical constraints, few studies predicting criminal tendencies use arrest records outside of a single state. In this respect, this study is comparable with most other studies of crime and delinquency.

A final caveat centers on our classification of early and later starters. Although we are confident that there is sufficient research and theory to justify the distinction between early and later starters, we are less certain about the exact age cutoffs for the two groups. Future research and theory that clearly delineates the cutoff point for early starting is needed. However, we should note that modifying our cutoff point by one year did not dramatically alter the results.

In sum, our results underscore the importance of the distinction between early- and later-starting offenders. We found evidence that early and later starters differ in several personality dimensions and differ in their future criminal careers. Based on these findings, future research should continue to explore the antecedents and consequences of early starting. Moreover, we recommend that intervention and treatment efforts be directed specifically to early starters, because this group may pose the greatest threat of harm to society.

**References**

42. Hathaway SR, McKinley JC: Minnesota Multiphasic Personality Inventory. Minneapolis, MN: University of Minnesota Press, 1943