

## Personality Traits Are Linked to Crime Among Men and Women: Evidence From a Birth Cohort

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Is there a relationship between personality and criminal behavior? We addressed this question in a representative birth cohort of 862 male and female 18-year-olds. Personality was assessed with the Multidimensional Personality Questionnaire (MPQ). The MPQ measures 10 relatively independent personality traits and was not designed to identify offenders. Delinquency was assessed via 3 data sources: self-reports, informant reports, and official records. *Variable-centered analyses* revealed that MPQ scales indexing negative emotionality and behavioral constraint were consistent predictors of delinquency across the 3 data sources. *Person-centered analyses* revealed that youths abstaining from delinquency were uniquely characterized by low interpersonal potency. Youths involved in extensive delinquency were uniquely characterized by feelings of alienation, lack of social closeness, and risk taking. Advances in understanding criminal behavior can be made through research that places the personality–delinquency link in a developmental context.

A majority of teenagers engage in some form of delinquency. For example, the National Youth Survey revealed that at age 17, 65%–75% of all American youths commit illegal acts (Elliott, Ageton, Huizinga, Knowles, & Canter, 1983). These delinquent acts vary in their frequency and severity from mere pranks to rape and assault (U.S. Department of Justice, 1986). However, although delinquent involvement is normative, it is not universal; some teens abstain from delinquency altogether (Elliott & Voss, 1974).

Why do some youths become enmeshed in an extensive variety of delinquent acts while others avoid criminal participation? In this article, we address this question by exploring the relationship between personality and delinquent behavior in a large representative sample of 18-year-old youths, using multiple sources of data about their illegal involvement.

### Personality Psychology, Criminology, and the Causes of Delinquency

Are some people crime prone? Is there a criminal personality? Psychologists and criminologists have long been intrigued

by the connection between personality characteristics and crime. However, in their research efforts, members of the two disciplines have seldom drawn on the complementary strengths of both disciplines.

Personality psychologists have proposed numerous well-articulated theories linking personality to crime and other antisocial outcomes (e.g., Cloninger, 1987; Eysenck, 1977; Fowles, 1980; Quay, 1988; Zuckerman, 1989). Many of these theories rely on trait-based personality models that have been criticized in the past as inadequate (Mischel, 1968). In the past 20 years, however, researchers have succeeded in demonstrating the cross-situational consistency (Epstein & O'Brien, 1985) and long-term stability (Caspi & Bem, 1990) of traits, and psychology has borne witness to a renaissance of the trait as an essential personality construct (Kenrick & Funder, 1988; Tellegen, 1991). Traits represent consistent characteristics of individuals that are relevant to a wide variety of behavioral domains, including criminality (cf. Eysenck, 1991).

However, recent advances in personality theory and assessment have had little influence on research conducted by criminologists (Gottfredson & Hirschi, 1990; Hirschi & Hindelang, 1977). Reviews of research on personality and crime appearing in mainstream criminology continue to identify numerous methodological shortcomings in psychological studies of crime (e.g., Schuessler & Cressey, 1950; Tennenbaum, 1977; Waldo & Dinitz, 1967), leading criminologists to dismiss personality as an unfruitful area of inquiry (see Stitt & Giacomassi, 1992). At the same time, criminologists have made important advances in conceptualizing and measuring illegal behavior. These advances, however, have had little influence on research on antisocial behavior conducted by psychologists. In this study we attempted to draw on the strengths of both personality psychology and criminology.

### Methodological Issues in the Study of Personality and Delinquency

Critics of empirical efforts to link personality and crime have pointed to problems with the *measurement of personality*, the

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*measurement of delinquency, and sampling.* We attempt to redress shortcomings in each of these areas.

### *Personality Instruments*

The most commonly used personality instruments in studies of crime have been the Eysenck Personality Questionnaire (EPQ), the Minnesota Multiphasic Personality Inventory (MMPI), and the California Psychological Inventory (CPI; Arbuthot, Gordon, & Jurkovic, 1987; Wilson & Herrnstein, 1985). Among these instruments, the EPQ Psychoticism scale, the MMPI Psychopathic Deviate (*Pd*) scale, and the CPI Socialization (*So*) scale best differentiate between criminal and noncriminal samples (Arbuthot et al., 1987; Eysenck & Gudjonsson, 1989). This is not surprising because each of these scales was constructed to detect criminal deviation. The Psychoticism (*P*) scale of the EPQ was created by choosing items that could successfully differentiate between criminals and average citizens (Farrington, Biron, & LeBlanc, 1982). The MMPI *Pd* scale was standardized on a group of incarcerated offenders (Dahlstrom, Welsh, & Dahlstrom, 1972). Similarly, although the CPI's construction was guided by theoretical concerns (Gough, 1957), the Socialization scale (*So*), originally labeled *Delinquency*, was designed to reliably differentiate between delinquents and nondelinquents (Megargee, 1972). These scales are excellent clinical tools for detecting criminal deviates in an ostensibly normal population. However, a theory that is based on observed correlations between *P*, *Pd*, or *So* and delinquency may be tautological.

In the current study, we assessed our sample members with the Multidimensional Personality Questionnaire (MPQ; Tellegen & Waller, in press). This instrument yields a comprehensive description of individual differences in personality and was not designed to differentiate between offenders and nonoffenders. Moreover, its multitrait nature allows researchers to identify a constellation of personality traits, not just a single trait, that may be linked to criminal involvement.

Previous studies of personality and delinquency have also been criticized for using delinquency and personality questionnaires that include virtually identical items (Tennenbaum, 1977). For example, both the MMPI and the CPI include items such as "I have never been in trouble with the law" and "Sometimes when I was young I stole things." Similarities between legally defined offenses and the wording of items on personality inventories may inflate correlations between these two theoretically distinct constructs. In the current study, we maintained sensitivity to this issue by evaluating each MPQ item in terms of its potential semantic overlap with any actual illegal acts.

### *Delinquency Measures*

In studies of personality and crime, the most commonly used delinquency measure has been subjects' conviction record or their presence in a correctional facility. However, a fundamental problem with official measures is that "hidden criminals," offenders who commit crimes but are not caught, escape empirical attention and may slip into "control" samples (Schuessler & Cressey, 1950). Only a fraction of deviance is reflected by official statistics (Hood & Sparks, 1970). Many criminologists

have turned to less biased measures, specifically, self-reported delinquency questionnaires.

The use of self-report delinquency measures has revealed other problems in official measures of delinquency: Systematic arrest and conviction biases exclude some types of offenders from empirical study, such as offenders who are White, middle class, or female (Klein, 1987). Because self-reports minimize these biases and have been shown to be valid and reliable, self-report delinquency inventories are now considered essential to the accurate measurement of delinquent behavior (Hindelang, Hirschi, & Weis, 1979, 1981; Hirschi, Hindelang, & Weis, 1980).

Nonetheless, self-report measures are not faultless. They have been criticized for including trivial items that query about acts that are unlikely to result in official intervention, such as skipping school or defying parental authority (Hindelang et al., 1979; Hirschi et al., 1980). Similarly, nonoffenders may tend to report trivial events such as sibling fisticuffs in response to questions about "assault" or taking the family car without permission in response to questions about "auto theft" (Elliott & Huizinga, 1989). By contrast, frequent offenders may tend to underreport their delinquent behavior because the individual acts are so commonplace that they are not salient in the offenders' memories (Hirschi et al., 1980).

Because both official records and self-report delinquency questionnaires have unique benefits and shortcomings, the use of the two measures in tandem affords the most effective empirical strategy (Hirschi et al., 1980). In this study, we collected multiple independent measures of delinquent behavior: self-reports, official records of police contact and arrest, court conviction records, and reports from independent informants.

### *Sampling*

Although much of the knowledge about personality and crime derives from studies of incarcerated subjects, these samples may be systematically different from nonincarcerated offenders. For example, because women are less likely to be convicted of crimes than men, women are often systematically excluded from subject pools (e.g., Taylor & Watt, 1977). In addition, the personal characteristics of offenders may influence official responses to their aberrant behavior. For example, some offenders may be poised enough to talk their way out of an arrest. Finally, incarceration itself may contribute to personality aberrations (Schuessler & Cressey, 1950; Wilson & Herrnstein, 1985). Thus, nonrepresentative sampling clouds interpretation of observed differences between captive offenders and nonincarcerated controls.

In our study we included male and female 18-year-olds from an entire birth cohort whose level of involvement in illegal behaviors ranged from complete abstinence to a wide variety of violations. Our results are not limited to a selected minority of teenage offenders who have been caught and convicted of their crimes.

### *Differentiating Between Delinquent Subtypes*

A great deal of past research on personality and crime has attempted to identify the personality characteristics of different

types of offenders (Quay, 1987), such as status offenders versus criminal offenders (e.g., Stott & Olczak, 1978). However, this may not be a productive research strategy when applied to adolescent offenders because there is little evidence for offense specialization prior to adulthood (Klein, 1984, 1987). Instead, most juvenile delinquents engage in "cafeteria-style delinquency," sampling from a variety of illegal possibilities.

How, then, can researchers make meaningful differentiations among delinquents? Epidemiological studies of delinquency suggest a distinction between normative and nonnormative delinquent participation (Moffitt, 1993). Research has shown that rates of offending peak sharply at age 17 (Blumstein & Cohen, 1987; Farrington, 1986) and that this adolescent peak reflects a temporary increase in the number of people involved in antisocial behavior, not a temporary acceleration in the offense rates of a few antisocial individuals (Farrington, 1983; Wolfgang, Thornberry, & Figlio, 1987). Thus, near age 17, delinquency is anything but deviant; among adolescents, delinquent participation represents normative behavior. Such normative participation conceals two distinct and theoretically interesting nonnormative groups: extremely delinquent (or *versatile*) adolescents, and nondelinquent (or *abstaining*) adolescents.

### *Versatile Delinquents*

A minority of participants in juvenile delinquency will continue their involvement beyond adolescence, developing into career criminals. Research shows that this group of extremely antisocial individuals can be distinguished by the persistence of their antisocial behavior across the life course (Moffitt, 1993) and by their involvement in an unusually wide variety of delinquent acts during adolescence (e.g., Robins, 1966, 1978). The reliable identification of this group is important because these youths are likely to do tremendous damage if their antisocial tendencies cannot be curtailed. Personality variables, if they are linked to high-variety delinquency, may aid in this identification process.

### *Abstainers From Delinquency*

Despite the fact that large numbers of youths participate in delinquency, a small minority reports that they abstain completely. Given that these youths eschew an activity that is regarded as normal by their peers, one may expect them to have distinct personality profiles. For example, Shedler and Block (1990), in a study of personality and adolescent drug use, found that the minority of teens who abstained from drug use tended to be tense, emotionally inhibited, and lacking in social poise. Youths who abstain from delinquency may thus be at risk for adult adjustment difficulties, albeit different difficulties from those that characterize adults who were enmeshed in extensive delinquency as youths.

In sum, we expected our sample to contain a group of future serious offenders who could be identified by their participation in a wide variety of delinquent behaviors. We also expected another portion of our sample to have abstained entirely from delinquent activities. By examining these two groups, we hoped to identify not only the robust personality correlates of delinquent

behavior, but also the unique personality correlates of nonnormative delinquent participation and abstention.

## Method

### *Subjects*

Subjects were 18-year-olds involved in the Dunedin (New Zealand) Multidisciplinary Health and Development Study. The cohort's history has been described by Silva (1990). Briefly, the study is a longitudinal investigation of the health, development, and behavior of a complete cohort of consecutive births between April 1, 1972, and March 31, 1973, in Dunedin, New Zealand. Perinatal data were obtained, and when the children were traced for followup at 3 years of age, 1,139 children were deemed eligible for inclusion in the longitudinal study by residence in the province. Of these, 1,037 (91%) were assessed.

The sample has been repeatedly assessed with a diverse battery of psychological, medical, and sociological measures since the children were 3 years of age. Data were collected for 991 subjects at age 5, 954 at age 7, 955 at age 9, 925 at age 11, 850 at age 13, 976 at age 15, and 1,008 at age 18. With regard to social origins, the children's fathers were representative of the social class distribution in the general population of similar age in New Zealand. Regarding racial distribution, members of the sample were predominantly of European ancestry (less than 7% identify themselves as Maori or Polynesian).

### *Measurement of Personality*

As part of the age 18 assessment, 862 subjects completed a modified version (Form NZ) of the MPQ (Tellegen, 1982). The MPQ is a self-report personality instrument designed to assess a broad range of individual differences in affective and behavioral style.

There were three reasons for modifying the original version of the MPQ for use in our study. First, limited time was allocated for the administration of the MPQ during each subject's full day of data collection; pilot testing revealed that subjects could not complete the 300 items that made up the original MPQ in the 30 min available. Second, because the sample consisted of an entire birth cohort, there were wide individual differences between our subjects in reading ability. This necessitated simplifying or removing items that involved particularly difficult words and concepts. Third, the MPQ was designed to be administered to American subjects. Although the culture of New Zealand is not much different from that of the United States, certain items on the original MPQ express notions with which the average New Zealander is likely to be unfamiliar.

With these considerations in mind, and with Tellegen's approval, we administered a 177-item version of the MPQ (Form NZ) that yields 10 different scales (Tellegen, 1982, pp. 7-8).<sup>1</sup> Scale names, descriptions of high scorers for each scale, and internal consistency coefficients (alphas) are presented in Table 1. The alphas ranged from .63 to .80 and had an average value of .73. The scale intercorrelations for male subjects ranged from -.30 to .50 with a mean absolute value of .16. The scale intercorrelations for female subjects ranged from -.38 to .41 with a mean absolute value of .17. The low magnitudes of these intercorrelations are similar to those obtained with the original instrument and illustrate the relative independence of the 10 MPQ scales (cf. Tellegen et al., 1988).

The 10 scales constituting the MPQ can be viewed at the higher order level as defining three superfactors: Constraint, Negative Emotionality, and Positive Emotionality (Tellegen & Waller, in press). Constraint is associated with the Traditionalism, Harm Avoidance, and Control scales. Individuals high on this factor tend to endorse social norms, act

<sup>1</sup> Multidimensional Personality Questionnaire Form NZ is available on request.

Table 1  
*Multidimensional Personality Questionnaire (MPQ) Scale Descriptions  
 and Internal Consistency Coefficients*

MPQ scale	$\alpha$	Description of a high scorer
Traditionalism (22 items)	.63	Desires a conservative social environment; endorses high moral standards
Harm Avoidance (21 items)	.71	Avoids excitement and danger; prefers safe activities even if they are tedious
Control (20 items)	.79	Is reflective, cautious, careful, rational, planful
Aggression (18 items)	.78	Hurts others for own advantage; will frighten and cause discomfort for others
Alienation (17 items)	.76	Feels mistreated, victimized, betrayed, and the target of false rumors
Stress Reaction (14 items)	.80	Is nervous, vulnerable, sensitive, prone to worry
Achievement (17 items)	.69	Works hard; enjoys demanding projects and working long hours
Social Potency (18 items)	.76	Is forceful and decisive; fond of influencing others; fond of leadership roles
Well-Being (11 items)	.67	Has a happy, cheerful disposition; feels good about self and sees a bright future
Social Closeness (19 items)	.75	Is sociable, likes people, and turns to others for comfort

in a cautious and restrained manner, and avoid thrills. The Negative Emotionality factor is associated with the Aggression, Alienation, and Stress Reaction scales. Individuals high on this dimension have a low general threshold for the experience of negative emotions such as fear, anxiety, and anger, and tend to break down under stress (Tellegen et al., 1988). Positive Emotionality consists of the Achievement, Social Potency, Well-Being, and Social Closeness scales. Individuals high on Positive Emotionality have a lower threshold for the experience of positive emotions and for positive engagement with their social and work environments, and tend to view life as being essentially a pleasurable experience (Tellegen et al., 1988). Further information about these higher order factors and their relations to other theorists' superfactors can be found in Tellegen (1985).

### *Measures of Delinquency*

*Self-reported delinquency.* Complete self-reports of delinquency were obtained for 930 subjects during individual interviews, using the standardized instrument developed by Elliott and Huizinga (1989) for the National Youth Survey (Elliott et al., 1983). Self-report measures of delinquency have been shown to have strong psychometric properties and are valid when the reporting period is 1 year or less and when the subjects have reason to trust guarantees of confidentiality (for reviews, see Hirschi et al., 1980; Moffitt, 1989). For example, across samples in different nations, test-retest reliabilities for periods between 2 weeks and 6 months ranged from .75 to .98, internal consistency alphas ranged between .65 and .92, and criterion correlations between self-report and police or parent data hovered near .40. The instrument used in our study is the most highly respected self-report assessment of antisocial behavior; its generally good psychometric properties are equaled when it is used in the New Zealand study (for details, see Moffitt, 1989). The validity estimates for our subjects' self-reports are somewhat higher than is typical for community or school surveys because the subjects have a long history of reporting sensitive personal information to us with no breach of confidentiality.

For this research, we used a "variety" score, which indicates how many of 43 different illegal acts were committed at least once during the past 12 months. Variety scores are useful for individual-differences

research for several reasons. First, they indicate the extent of involvement in different types of crimes, a variable that has been found to be a highly reliable predictor of future antisocial outcomes (Robins, 1978). Second, they are less skewed than frequency scores. Third, they give equal weight to all delinquent acts, unlike frequency scores, which give more weight to minor crimes that are committed frequently (e.g., underage drinking) and give less weight to serious, less frequent crimes (e.g., rape). For male subjects, the age 18 variety score had an alpha of .88, a mean of 6.1 ( $SD = 5.4$ ), and the range was 0–30. For female subjects, the alpha was .82, the mean was 3.4 ( $SD = 3.1$ ), and the range was 0–29.

*Informant reports.* At the age 18 assessment, subjects were asked to nominate a friend or family member who knew them well and to give informed consent for us to send informants a 41-item mailed questionnaire. Of informants who returned the questionnaire, 824 provided responses to 4 items that inquired about our subjects' antisocial behavior during the past 12 months: "problems with aggression, such as fighting or controlling anger," "doing things against the law, such as stealing or vandalism," "problems related to the use of alcohol," and "problems related to the use of marijuana or other drugs." These items were coded as doesn't apply (0), applies somewhat (1), and certainly applies (2). The items were summed to create a single index. For male subjects, the index had an alpha of .63, a mean of 0.79 ( $SD = 1.26$ ), and a range from 0 to 8. For female subjects, the alpha was .50, the mean was 0.53 ( $SD = 0.98$ ), and the range was from 0 to 6.

*Police contacts.* "Police contacts" included all police actions that resulted in the filing of a standard incident form listing offenses known by the officer to be committed by the juvenile. Records of police contacts from ages 10 to 16, inclusive, were obtained for 991 subjects from Youth Aid constables in police departments throughout New Zealand. These records were unavailable for 12 subjects who had died and for 34 who had moved outside of New Zealand. Among the young men in the sample, 18.8% had records of police contacts as juvenile delinquents; the number of contacts they had with the police ranged from 0 to 18. For young women in the sample, 9.8% had records of police contacts as juvenile delinquents; the number of contacts they had with the police ranged from 0 to 12. The sample was representative of New Zealand

Table 2  
*Correlations Among Reports of Delinquency  
 From Independent Data Sources*

Source	1	2	3	4
1. Self-report	—	.48	.42	.36
2. Informant report	.36	—	.40	.47
3. Police contacts	.21	.05 <sup>a</sup>	—	.78
4. Court convictions	.35	.13	.71	—

Note. Correlation coefficients for young men are presented above the diagonal; those for young women are presented below the diagonal.

<sup>a</sup> This coefficient failed to reach significance. All other coefficients are significant at the .01 level.

juveniles as a whole in terms of the number of police contacts experienced (Moffitt, 1989).

*Court convictions.* Computerized records of 932 subjects' court convictions at all courts in New Zealand or Australia were obtained by searching the central computer system of the New Zealand police. The convictions did not include traffic offenses, with the exception of drunk driving and criminally negligent driving. Routine motor vehicle violations are handled by a separate agency in New Zealand. Records included convictions in children's and young persons' court up to the 17th birthday and convictions in adult criminal court up to the 18th birthday. Informed consent for the search was obtained during the age 18 interviews; hence, records could not be acquired for subjects who did not participate in the Phase 18 assessment, were deceased, did not give informed consent for the record search, or lived outside of New Zealand or Australia.<sup>2</sup> Of the male subjects, 14.9% had one or more convictions (range = 0–68); for female subjects, the comparable figure was 5.5% (range = 0–10). The earliest conviction was at age 14.

*Convergent validity of delinquency measures.* To be certain that all three measures of delinquency (i.e., self-reports, informant reports, and official records) were converging on the same phenomenon, we computed correlations between the delinquency measures. As shown in Table 2, the intercorrelations were uniformly positive, and all but one reached statistical significance.<sup>3</sup>

### Attrition

We examined whether subjects who did, versus did not, complete the MPQ differed in terms of their self-reported delinquency. Subjects who completed the MPQ did not differ significantly from nonrespondents in self-reported delinquency at age 18,  $t(928) = 1.26, ns$ . However, subjects who did not complete the MPQ at age 18 had reported more delinquent activity at age 15 than those who did complete the MPQ,  $t(958) = 2.5, p < .05$ . This suggests that some highly delinquent 15-year-olds were not available to complete the MPQ at age 18. Hence, the variance in self-reported delinquency at age 18 was probably slightly lower than it would have been if these subjects had been included. With less variance in the delinquency measures available to be predicted by personality, our effect sizes may underestimate the true effect size in the population; attrition may thus make our analyses more conservative.

### Results

Our analyses addressed two questions about the link between personality and delinquency. First, could we identify robust personality correlates of delinquency when delinquency was as-

sessed by multiple and independent data sources? Second, is nonnormative delinquent participation (i.e., complete abstention or extensive delinquency) characterized by a unique set of personality correlates?

### What Are the Personality Correlates of Delinquency?

To assess the relation between personality characteristics and delinquency, we computed correlations between the 10 MPQ scales and measures of delinquency drawn from three independent data sources: self-reports, informant reports, and official records. We used rank order correlations to obviate difficulties introduced by the skewness typically found in measures of delinquency (cf. Block, Block, & Keyes, 1988). These results are presented in Table 3, separately for male and female subjects. We discuss only those significant findings that replicate across gender or data source.

Three personality scales were correlated with all three independent sources of data among both male and female subjects. Delinquency was negatively associated with the MPQ Traditionalism and Control scales and positively associated with the Aggression scale. These results suggest that young men and women who engaged in a wide variety of delinquent behavior preferred rebelliousness over conventionality, behaved impulsively rather than cautiously, and said they were likely to take advantage of others.

Two additional personality scales showed robust, but somewhat less consistent, patterns: Among young men, all three data sources correlated with the MPQ Alienation scale and two data sources correlated with the MPQ Stress Reaction scale; among young women, two data sources correlated with both the Alienation and Stress Reaction scales. These results suggest that young men and women who engaged in delinquency were also likely to feel betrayed and used by their friends and to become easily upset and irritable. The only consistent gender difference emerged with regard to the MPQ Achievement scale; it was significantly correlated with two data sources among young women, suggesting that those who engaged in delinquency were not particularly hard working or ambitious. The overall MPQ personality profiles explained 32% (female subjects) to 40% (male subjects) of the variance in self-reported delinquency, 12% of the variance in informant-reported delinquency, and 5% (female subjects) to 9% (male subjects) of the variance in official delinquency records.

### Does Shared Item Content Influence Correlations Between Personality and Delinquency?

In the introduction, we identified predictor–criterion overlap as a pervasive problem in research linking personality and de-

<sup>2</sup> The 22 participants who did not consent to the search did not differ from the whole sample on self-reported delinquency at ages 13, 15, or 18, or on parent reports of delinquency at ages 13 or 15.

<sup>3</sup> Juvenile arrests were recorded up until the subjects' 17th birthday and informant reports covered the subsequent year. It may be that different reporting periods, coupled with the relatively low reliability of informant reports about female delinquency and the relative instability of female delinquency, might have conspired to produce this one anomalous correlation in the Table 2.

Table 3

*Correlations Between Personality Variables and Multimethod Assessments of Delinquency by Sex*

Variable	Measures of delinquency							
	Self-report		Informant report		Police contacts		Court convictions	
	Women (n = 417)	Men (n = 440)	Women (n = 379)	Men (n = 395)	Women (n = 418)	Men (n = 444)	Women (n = 414)	Men (n = 432)
MPQ scales								
Traditionalism	-.34***	-.37***	-.12*	-.14**	-.08	-.08	-.11*	-.16**
Harm Avoidance	-.23***	-.20***	-.03	-.01	-.01	-.02	-.04	-.04
Control	-.39***	-.37***	-.13**	-.12*	-.09	-.11*	-.12*	-.19***
Aggression	.48***	.52***	.25***	.28***	.24***	.17***	.19***	.21***
Alienation	.19***	.29***	.23***	.20***	.08	.18***	.08	.18***
Stress Reaction	.17***	.26***	.23***	.07	.06	.12**	.01	.03
Achievement	-.13**	.00	-.01	-.06	-.13**	-.01	-.13**	-.02
Social Potency	.23***	.21***	.09	.09	-.03	-.02	.01	.03
Well-Being	-.04	.05	-.11*	.02	-.01	-.01	-.04	-.04
Social Closeness	-.08	-.08	-.12*	.01	-.01	-.04	-.02	-.03
R	.57***	.63***	.35***	.34***	.29***	.23**	.24**	.30***
MPQ superfactors								
Constraint	-.44***	-.44***	-.13*	-.12*	-.07	-.09	-.13**	-.17***
Negative Emotionality	.34***	.48***	.32***	.23**	.15**	.20***	.09	.17***
Positive Emotionality	.01	.05	-.05	.03	-.08	-.04	-.09	-.04
R	.50***	.58***	.33***	.24***	.17**	.20***	.16**	.21***

Note. Coefficients represent Spearman rank order correlations. MPQ = Multidimensional Personality Questionnaire.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

linquency. To be certain that the previously reported correlations did not suffer from this shortcoming, four of us independently judged all 177 MPQ items for content overlap with the domain of delinquent activity (i.e., an item that implies illegal behavior or that may appear on a self-report delinquency questionnaire). The raters identified 6 items describing criminal or physically assaultive activity, all of which fell on the Aggression subscale (e.g., "Sometimes I hit people who have done something to deserve it"). The remaining 12 items on the Aggression scale were judged to be uncontaminated (e.g., "I see nothing wrong with stepping on people's toes a little if it is to my advantage") and thus were combined to form a scale labeled *Non-Delinquent Aggression*. Correlations between the Non-Delinquent Aggression scale and the four measures of delinquency did not differ significantly from the correlations between the original Aggression scale and the four measures of delinquency (.58 vs. .53 for self-reported delinquency; .29 vs. .26 for informant-reported delinquency; .25 vs. .21 for police contacts; .20 vs. .17 for court convictions). Thus, predictor-criterion overlap did not appear to be a significant confound in our study of personality and delinquency.

#### *Higher Order Personality Factors and Delinquency*

To summarize the personality correlates of delinquent behavior across the three independent data sources, we examined correlations between the MPQ's three higher order factors and each measure of delinquent activity. The correlation coefficients are presented in the lower portions of Table 3 for young men and women, respectively.

The Constraint and Negative Emotionality factors emerged

as robust correlates of delinquent behavior across the three different data sources and both sexes. The negative correlations with the Constraint factor suggest that delinquent adolescents were likely to be impulsive, danger seeking, and rejecting of conventional values. The positive correlations with the Negative Emotionality factor suggest that these delinquent adolescents were prone to respond to frustrating events with strong negative emotions, to feel stressed or harassed, and to approach interpersonal relationships with an adversarial attitude. Positive emotionality was not significantly associated with any measure of illegal behavior.

#### *Nonnormative Delinquent Participation and Personality*

Thus far, we have identified the personality correlates of the entire range of delinquent participation represented in our sample. As we noted in the introduction, however, much delinquent activity is normative during the adolescent years. Thus, we hypothesized that nonnormative delinquent behavior (i.e., complete abstention or extensive participation) may be associated with unique personality profiles. We began our test of this hypothesis by identifying three groups of subjects: (a) those who reported that they had never engaged in delinquency, (b) those who engaged in a wide variety of delinquent acts, and (c) those who engaged in normative levels of delinquency.

Previous studies that relied on official measures of delinquency were not able to distinguish between nondelinquents and undetected delinquents. The self-report method allowed us to isolate a group of nonparticipants in delinquency. Although the male 18-year-olds in our sample committed an average of 6.1 different types of delinquent acts during the past year, 31

young men (7% of all male respondents who completed the MPQ) reported engaging in no delinquent behavior. These subjects are statistically unusual and are referred to as *male abstainers*. To create a comparable group of extremely delinquent young men, we identified an equal number of subjects who fell at the opposite end of the distribution of self-reported delinquency. These young men are referred to as *male versatiles*. Our designation of a versatile group as equal in number to the abstainers is a statistical operationalization of the theoretical concept of the versatile offender. The remaining 86% of boys in the middle of the distribution constituted a group of *normative male delinquents*.

Similarly, the young women in our sample committed an average of 3.4 different types of delinquent acts during the past year, but 69 of them (16.5% of all female respondents who completed the MPQ) reported engaging in no delinquent behavior. Like the male abstainers, these young women are statistically unusual and are referred to as *female abstainers*. To create a comparable group of extremely delinquent female subjects, we identified an equal number of young women who fell at the opposite end of the distribution of self-reported delinquency. These subjects are referred to as *female versatiles*. The remaining 67% of subjects in the middle of the distribution constituted a group of *normative female delinquents*.<sup>4</sup> Male and female versatiles were designated relative to their own gender and thus were not matched on number of offenses.

We examined personality differences among the abstainers, versatiles, and normative delinquents using one-way analyses of variance (ANOVAs). Each statistically significant omnibus test was followed by pairwise comparisons of (a) abstainers versus normative delinquents and (b) versatiles versus normative delinquents. Familywise alpha was constrained to .05 by setting the pairwise significance level at .025. These contrast analyses were intended to uncover any personality characteristics unique to abstainers or to versatile offenders.

### *Do Adolescents Who Abstain From Delinquency Have Distinct Personality Profiles?*

The two panels in Figure 1 show a contrast of the personality profiles of abstainers and normative delinquents separately by sex.<sup>5</sup> As Panel A shows, young men who abstained from delinquency scored significantly higher than their normative counterparts on the MPQ Traditionalism and Control scales and scored significantly lower on the Aggression and Social Potency scales. Like the young men, the female abstainers scored significantly higher than did normative female delinquents on the MPQ Traditionalism and Control scales and scored significantly lower on the Aggression, Social Potency, and Stress Reaction scales (see Figure 1B). To a lesser degree ( $p = .029$ ), female abstainers also tended to score higher than normative female delinquents on the Achievement scale.

In sum, the personality profiles of adolescents who abstained from delinquent behavior differed significantly from the personality profiles of normative adolescent delinquents. Moreover, male and female abstainers exhibited convergent personality profiles that were characterized by a preference for conventionality, planfulness, meek, nonaggressive behavior, and a nonassertive interpersonal style.

### *Do the Most Versatile Adolescent Delinquents Have Distinct Personality Profiles?*

The two panels in Figure 2 show a contrast of the personality profiles of versatile and normative delinquents separately by sex. As Panel A shows, young men who engaged in a wide variety of delinquent acts scored significantly higher than their normative counterparts on the Aggression, Alienation, and Stress Reaction scales and significantly lower on the Traditionalism, Control, and Social Closeness scales. To a lesser degree ( $p = .041$ ), they also scored lower than did male normative delinquents on the Harm Avoidance scale. Like the male subjects, female versatiles scored significantly higher than did female normative delinquents on the Aggression and Alienation scales and significantly lower on the Traditionalism, Harm Avoidance, and Control scales. To a lesser degree, they also scored lower than did female normative delinquents on the Social Closeness ( $p = .028$ ) and Achievement ( $p = .047$ ) scales.

In sum, the personality profiles of adolescents who engaged in a wide variety of delinquent acts differed significantly from the personality profiles of normative adolescent delinquents. Moreover, male and female versatiles exhibited convergent personality profiles that were characterized by a rejection of traditional values, thrill seeking, impulsivity, aggressive behavior, lack of sociability, and feelings of alienation. Taken together, the group comparisons indicated that abstainers from delinquency scored uniquely low on the Social Potency scale, whereas versatile offenders scored uniquely low on the Harm Avoidance and Social Closeness scales and uniquely high on the Alienation scale.

## Discussion

In this study we drew on separate methodological strengths from personality psychology and criminology to address two questions: First, what are the robust personality correlates of delinquent behavior? Second, do adolescents who engage in extensive delinquent behavior and those who completely abstain from delinquency have unique personality characteristics?

### *Robust Personality Correlates of Delinquent Behavior in Young Men and Women*

Previous studies linking personality and crime have been limited by problems inherent in measuring delinquency. Researchers who have used exclusively police and prosecution records might have identified only a subgroup of delinquents, and those who have used exclusively self-report measures of both person-

<sup>4</sup> We checked whether abstainers, normative delinquents, and versatiles differed on informant-reported delinquency and official records of delinquency. The groups differed significantly from each other on all outcome variables; according to informant reports and official records, the versatiles were the most delinquent, followed by the normative delinquents and the abstainers. We also checked the official records of the abstainers to verify that, on their self-reports, they were truthful about their lack of delinquent activity during the past 12 months. Official records revealed that only 1 of the 100 abstainers had an official record: a single conviction for underage drinking.

<sup>5</sup> Complete tabled data are available on request.



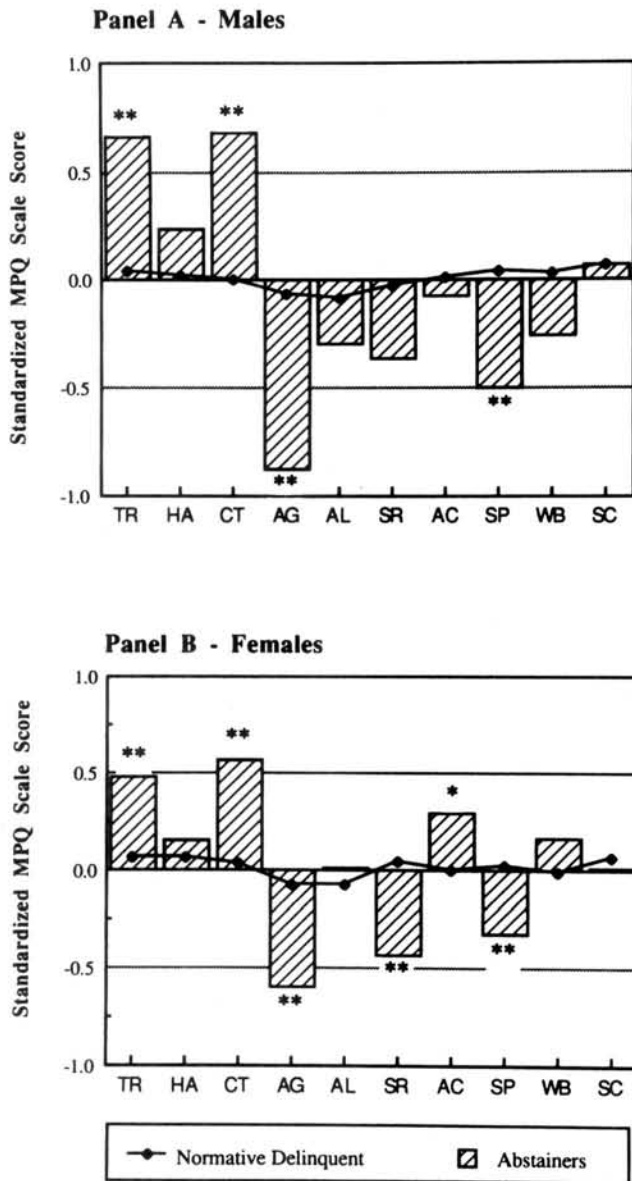


Figure 1. Personality differences between abstainers and normative delinquents. TR = Traditionalism; HA = Harm Avoidance; CT = Control; AG = Aggression; AL = Alienation; SR = Stress Reaction; AC = Achievement; SP = Social Potency; WB = Well Being; SC = Social Closeness. \*Scale score differs from the normative score at the .05 level. \*\*Scale score differs from the normative score at the .025 level.

ality and delinquency might have found inflated correlations attributable to shared method and source variance. Our measures of delinquency included official records of arrests and convictions as well as self-reports. In addition, we included informant reports of delinquency, which possess neither the bias inherent in official measures nor the source overlap that may complicate interpretation when personality and delinquency are assessed via self-report measures.

The personality correlates of delinquency were robust across

the three independent data sources. For young men and young women, across the official, self-reported, and informant data, greater delinquent participation was associated with more aggression, more alienation, greater stress reactivity, less traditionalism, and less self-control. Differential personality correlates for young men versus young women were few; the convergence across genders was the more striking finding. Furthermore, the strength of the association between personality and delinquency was impressive across the data sources;

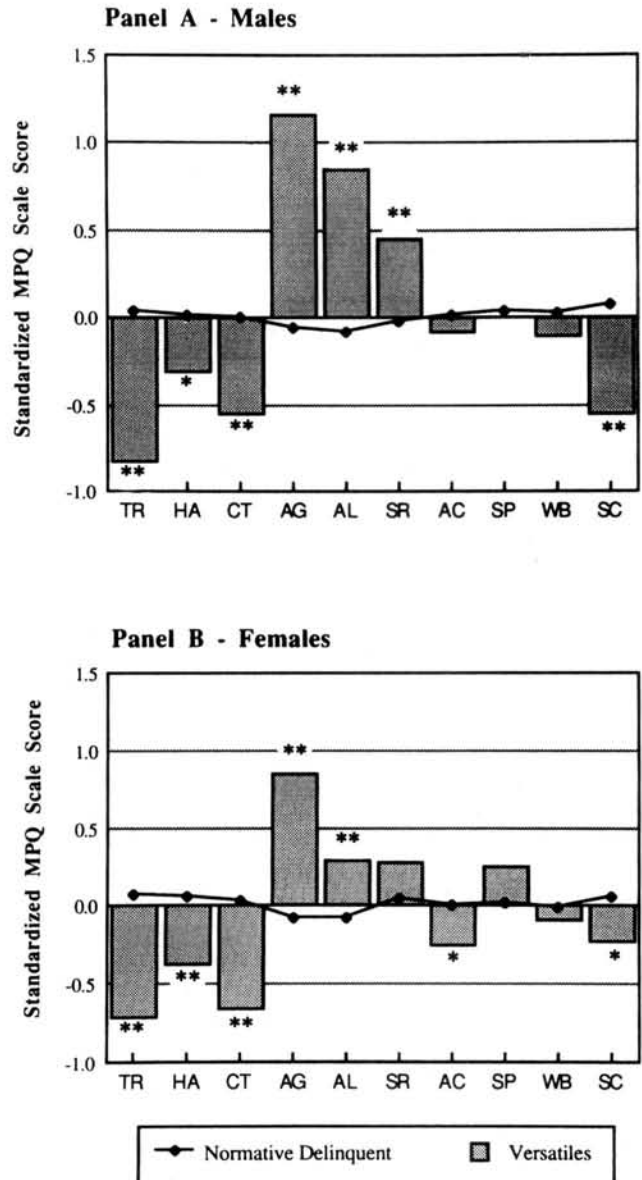


Figure 2. Personality differences between versatile and normative delinquents. TR = Traditionalism; HA = Harm Avoidance; CT = Control; AG = Aggression; AL = Alienation; SR = Stress Reaction; AC = Achievement; SP = Social Potency; WB = Well Being; SC = Social Closeness. \*Scale score differs from the normative score at the .05 level. \*\*Scale score differs from the normative score at the .025 level.



multiple correlations ranged from .23 to .63. The strength of this personality effect matched the predictive strength in this sample of the three best known correlates of delinquency: social class, sex, and IQ ( $R = .32$ ).

At the higher order factor level, greater delinquent participation was associated with greater negative emotionality and less constraint. How do these factors relate to delinquent behavior in a young adult? Negative emotionality is a tendency to experience aversive affective states such as anger, anxiety, and irritability (Watson & Clark, 1984). It is likely that individuals with chronically high levels of negative affect perceive interpersonal events differently from others. They may be predisposed to process information in a biased way, perceiving threat in the acts of others and in the vicissitudes of everyday life.

This situation may be worsened when negative emotionality is accompanied by an inability to modulate impulsive expression (a lack of constraint). In low-constraint individuals, negative affect may be more readily translated into actions against perceived threat. Theoretically, antisocial behavior should become increasingly likely among individuals high in negative emotionality and low in constraint.

#### *Person-Centered Analyses: A Comparative Analysis of Normative Versus Nonnormative Delinquency*

We also conducted analyses aimed at identifying and describing individuals whose nonnormative delinquent behavior distinguished them from the majority of their peers. We identified two subtypes: those who completely abstained from crime (abstainers) and those who were extensively involved in a wide variety of illegal activities (versatiles).

In some ways, abstainers and versatiles appeared to represent opposite ends of a behavioral continuum: Abstainers were overconstrained, whereas versatiles were underconstrained. Moreover, abstainers were passive, whereas versatiles were aggressive. Thus, with regard to most of the 10 MPQ scales, the group comparisons duplicated the results of the correlational analyses. However, the group comparisons allowed us to illustrate that on 4 of the MPQ scales, the two groups were not merely mirror images of one another. Instead, each group was characterized by a distinct *interpersonal* style.

Abstainers were uniquely lacking in social potency; they described themselves as submissive, not fond of leadership roles, and lacking capacity to influence others. This characterization overlaps with Shedler and Block's (1990) description of social uneasiness among individuals who abstained from experimentation with drugs during the adolescent years. However, unlike Shedler and Block's drug abstainers, who were also described as tense and emotionally inhibited, our abstainers from delinquency were less stress reactive than normal youths. Thus, the results of our study suggest that abstainers are distinguished not by their emotional difficulties but instead by their low interpersonal engagement, which may entail lower participation in quasi-normative adolescent activities, including delinquency.

In contrast to the abstainers, the versatiles uniquely lacked social closeness and were high on alienation; they described themselves as interpersonally distant and felt persecuted by their peers. This portrait is consistent with theorizing about the peer relationships of persons with long-term severe antisocial

behavior. Moffitt (1993) suggested that these "life-course-persistent" delinquents, akin to our versatiles, will have peer relationships in adolescence that are short-lived and oriented around illegal activities. The peer groups of versatile offenders may thus serve the function of supporting delinquent goals, but such relationships need not imply loyalty or affection among co-offenders. Thus, despite their apparent peer connections, these versatile adolescent offenders continue to describe themselves as interpersonally isolated and persecuted.

#### *Directions for Future Research*

Our study focused mostly on White adolescents who lived in a midsized city with little social decay relative to America's largest cities. Will negative emotionality and constraint predict antisocial behavior in individuals from different environments and during different developmental stages? We are currently addressing some of these generalizability issues by replicating this study of the personality-crime relationship in a separate sample of American inner-city youths aged 12–13 years (Caspi, Moffitt, Silva, Stouthamer-Loeber, Krueger, & Schmutte, in press).

Our study was also cross-sectional and could not untangle the causal direction of the personality-crime relationship. Indeed, two questions must be addressed in future research. First, can negative emotionality and constraint measured prospectively in childhood predict which youngsters will take up delinquency when they enter adolescence? We plan to explore this question in our study of American inner-city youths as they move toward the peak age of normative delinquency. Second, can negative emotionality and constraint measured during adolescence predict which adolescent delinquents will sustain adult crime careers and which will abandon delinquency for a conventional life-style? We plan to address this question as we follow the New Zealand subjects into adulthood.

Although the idea of a relationship between personality and crime is not new (Eysenck & Gudjonsson, 1989), many researchers have remained unconvinced of the importance of personality in understanding illegal behavior. Our study suggests that a unique configuration of personality traits is nearly part and parcel of delinquency. Societies, families, and genes—the current foci of criminological research—are important forces contributing to crime, but these forces do not commit crimes. We hope our study helps to encourage and guide research efforts that acknowledge the role of actors in the criminal drama and endeavor to understand how their personalities mold the parts they play.

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