In Response

Rhetoric and Cliché: A Response to Neitzel and Milich's Review of *Crime and Human Nature*

John G. Youngbauer
University of Kansas

In *Crime and Human Nature*, James Q. Wilson and Richard J. Herrnstein (1985) offer a naturalistic explanation of crime on the level of the behavior of individuals. Their explanation involves the matching law (Herrnstein, 1974) through which are derived probability statements about the commission of criminal and noncriminal behavior based on behavior's positive and negative consequences, and as mediated by "impulsivity." The research literature on impulsivity is interrelated with that on the characteristics of prison inmates and high rate juvenile offenders to yield what the authors see as predisposing constitutional, developmental, and social factors to crime and delinquency.

In reviewing *Crime and Human Nature*, Neitzel and Milich (1986) provided a thorough overview of the book, properly emphasizing the massive amount of work the authors undertook in integrating diverse literatures and theories from many fields of inquiry. The reviewers also noted that the book's prose style, length, and complexity might lead some readers to cite and discuss the book on the basis of its reviews rather than on a reading of the book itself. As Neitzel and Milich point out, however, many of the negative reviews need to be read with caution be-

cause they seemingly reduce the book's contents to mere rhetoric and cliché, especially in the treatment of constitutional factors in criminal behavior.

The purpose of this "In Response" is to explore why some reviewers might have impulsively yielded to what Neitzel and Milich see as rhetoric and cliché, with an eye towards examining whether or not that tone of criticism was warranted.

CONSTITUTIONAL FACTORS IN CRIMINAL BEHAVIOR

Wilson and Herrnstein begin their chapter on constitutional factors with the observation that young males are more likely to commit crime than females or older males, and that the high rate of youthful male offending may have both social and constitutional antecedents. As for the latter, Wilson and Herrnstein admit that there is no "crime gene" nor "born criminal." They do, though, argue that some predisposing factors such as physique, intelligence, and temperament—seen as constitutional factors—nonetheless affect the probability that an individual will engage in crime.

Wilson and Herrnstein begin quite reasonably: "We believe that criminal behavior, like all human behavior, results from a complex interaction of genetic and environmental factors" (p. 70). This statement, however, serves not as a point of departure for investigating the complex interaction of genetic and environmental factors, but rather leads to a comparison of relative importance of those factors.

According to Wilson and Herrnstein, criminologists had dismissed constitu-

I would like to extend my thanks and appreciation to Don Bushell, Mont Wolf, and James T. Todd for their thoughtful and constructive comments on earlier versions of this manuscript. Preparation of this manuscript was supported in part by grant HD 07173-09 from the National Institute of Child Health and Human Development. Reprints may be obtained from the author, Department of Human Development, Haworth Hall, University of Kansas, Lawrence, KS 66045.

tional factors with the waning of Lombroso's influence and credibility in the early 1900s. Today, however, Wilson and Herrnstein assert that "modern" research provides the necessary physical and genetic evidence for such factors. In making this case, they lay out the null hypothesis of their logic for all their subsequent analyses:

If it could be shown that criminals are constitutionally indistinguishable from noncriminals, then it would seem plausible to suppose that crime results from a criminal's economic, cultural, social, and political circumstances, rather than his constitution. (p. 71)

Two points bear special emphasis here. First, much of the modern evidence emphasized by Wilson and Herrnstein is decidedly not modern: It is the anthropometric work of Lombroso and Ferrero (1897; Lombroso-Ferrero, 1911/1972), Goring (1913), and Hooton (1939a, 1939b); the research on facial characteristics by Thornton (1939), Kozeny (1962), and Bull and Green (1980); and investigations into somatotyping by Sheldon (1940, 1942, 1949) and the Gluecks (Glueck & Glueck, 1930, 1934, 1956). Second, based on the logical form of their analysis, Wilson and Herrnstein can easily assert that these data support the position that a constitutional correlate of crime provides evidence against a purely environmental explanation. In their words: "Our purpose in this chapter is served simply by noting that the evidence leaves no doubt that constitutional traits correlate with criminal behavior" (p. 90).

In stating that constitutional traits correlate with criminal behavior, Wilson and Herrnstein are careful to point out that correlation is not causation. Nonetheless, the evidence appears sufficient enough in their view to establish a case for discussing "predispositions" towards crime. Having proven the physical correlates of, and predispositions for, criminality to their satisfaction, Wilson and Herrnstein move on to introduce quantitative genetics.

Quantitative Genetics

Quantitative genetics attempts to infer genetic links to behavior by partialling

correlation coefficients into genetic and environmental components. By comparing relevant information on twins reared apart, the differential influence of genetic endowment and the environment can be determined. Wilson and Herrnstein examine studies that apparently show some concordance between a trait (in this case, criminal behavior) and genetic relationships among individuals. In so doing, however, they offer this caution:

The studies vary significantly in definitions of criminality and concordance, as well as in the pains taken to determine whether the twins were fraternal or identical. Using blood typing or direct chromosomal assessment, modern studies can exceed 95 percent accuracy in determining twinship; accuracy was a good deal poorer in the past. (p. 92)

However, they then go on:

Nevertheless, we have pooled all the data (in effect weighting by sample size) to give a single, overall comparison of the MZ-DZ differences in concordance. Pooled concordance for MZ twins was .69; for same-sex DZ twins, it was .33, strongly indicative, within the limitations of the data and the twin method, of a substantial genetic component in criminal behavior. (p. 93)

Seven out of eight of these pooled studies, however, were conducted between 1929 and 1947, presumably before blood typing or direct chromosomal assessment were used. Thus, the independent variable, twinship, is unspecified. Moreover, Wilson and Herrnstein themselves admit that the definition of the dependent variable, criminality and concordance, is ambiguous. How a "substantial genetic component" is established by these data seems patently unclear. Nonetheless, Wilson and Herrnstein proved otherwise to their own satisfaction, and moved on to adoption studies.

Adoption Studies

Adoption studies offer opportunities to investigate inferred genetic influences on criminal behavior, while controlling for environmental factors. Specifically, adoption or foster-home placement separates children from their biological parents, so that they are raised without exposure to criminogenic environments. From this, any covariation between criminality of parents and child can be

inferred to be genetic. This line of reasoning is not new nor uncriticized. In the early part of this century, John B. Watson (1925) commented: "Let one adopted child who has bad ancestry go wrong and it is used as incontestable evidence for the inheritance of moral turpitude and criminal tendencies" (p. 84).

In their review of the adoption studies, Wilson and Herrnstein cited a comprehensive and rigorously designed analysis conducted by Mednick, Gabrielli, and Hutchings (1984). Mednick et al. took great care to report both the major and secondary findings. The major findings reported by Wilson and Herrnstein are: "Chronically criminal biological parents (three or more convictions) are three times more likely to produce a chronically criminal son than are biological parents with no convictions" (p. 97). Wilson and Herrnstein reported the secondary findings of the study to be: "The age of placement exerted no effect on the relationship between biological-parent-male-adoptive criminality" (p. 99).

Wilson and Herrnstein omitted some critical information, however, in describing the age of placement and its relation to crime. According to Mednick et al.:

Among males, there was a statistically significant association between adoptee criminality and amount of time spent in the orphanage waiting for adoption. This effect, which was not true for females, may be due to institutionalization. Or it may be a function of selection bias ("less desirable" boys adopted later and also being convicted). (p. 894)

This omission suggests a possible bias in the literature review (see also Neitzel & Milich, 1986, p. 217). If, as Wilson and Herrnstein described earlier in their book, youthful males are the most frequent offenders and that their patterns of anti-social behavior start very early, then failing to report that 11.3 percent of the adoptee population in this study waited in an orphanage more than two years before placement seems an oversight. Nonetheless, Wilson and Herrnstein continue on to cytogenetic studies.

Cytogenetic Studies

Wilson and Herrnstein next present the work of Jacobs, Brunton, Melville, Brit-

tain, and McClemon (1965) who found a disproportionately high frequency of men with an extra Y chromosome among prison inmates. Wilson and Herrnstein also cited a Danish study by Witkin, Mednick, Schulsinger, Bakkestrom, Christiansen, Goodenough, Hirschhorn, Lundsteen, Owen, Phillip, Rubin, and Stocking (1976) that sampled 4,139 individuals chosen on the basis of height (also a correlate of XYY chromosomal abnormality). Twelve individuals were found to have an XYY chromosomal constellation, five of whom had a criminal record of one or more offenses, which is above base rate for offending. Wilson and Herrnstein make the following assertion about these latter data in their summary:

XYY men are at risk for crime partly because they suffer from depressed intelligence and performance in school and partly because of other, as yet unidentified, effects of the extra chromosome. Generalizing the result, the study implies that the genetic ingredient in criminal behavior is partly, but not entirely, accounted for by intellectual and educational variables. (p. 102)

The XYY literature, however, has been summarized differently by other reviewers. According to Gould (1981), for example, "The tale of the XYY as a criminal stigma has now been widely exposed as a myth" (p. 144). The work of Borgeonkar and Shah (1974) and Pyeritz, Schrier, Madansky, Miller, and Beckwith (1977), clearly establishes that basic flaws in the methodology of XYY studies make any claims about associations between XYY and criminality unfounded. A maximum of 1 percent of XYY males in the United States may spend part of their lives in mental or penal institutions (Pyeritz et al., 1977, p. 92). These findings and others (e.g., Chorover, 1979) suggest that the extra Y chromosome adds little if anything to our understanding of genetic predispositions towards crime.

CONCLUSION

In concluding their chapter on the constitutional factors in criminal behavior, Wilson and Herrnstein state:

We can answer unequivocally the question posed near the beginning of the chapter. The average of-

fender tends to be constitutionally distinctive, though not extremely or abnormally so. The biological factors whose traces we see in faces, physiques, and correlations with the behavior of parents and siblings are predispositions toward crime that are expressed as psychological traits and activated by circumstance. (p. 102)

The pivotal evidence Wilson and Herrnstein provide, however, is not exactly unequivocal. First, the modern biological evidence for a constitutional link to criminal behavior seems more historical than not. Second, twin studies are cited to establish a "substantial genetic component," but many of them were conducted prior to modern methods of blood typing and direct chromosomal assessment; in Mednick et al.'s (1984) more modern study, the significant relationship between length of time in the institution and subsequent criminal behavior is not reported. Third, the XYY studies presented have been largely dismissed.

Charles Darwin (1859/1962) once commented: "Great is the power of steady misrepresentation" (p. 476). The cumulative effect of the seemingly small but consistent errors or omissions in Wilson and Herrnstein's book produces a powerfully convincing case for the genetic basis of criminality among predisposed or naive readers. Neitzel and Milich are not naive, but they may have been predisposed, for they seemed too uncritical of the book's faults in these regards. The cumulative effect of steady misrepresentation among those predisposed against genetic inferences or among those more knowledgeable about the literature may tempt them to characterize the book as mere rhetoric and cliché. The latter seems not an unwarranted reaction.

In summary, the book should be read, not just the reviews. But it should be read with a clear and steady eye, and with an inclination towards resisting the steady shaping of reader behavior by two qualified and convincing scholars.

REFERENCES

- Borgaonkar, D., & Shah, S. (1974). The XYY chromosome, male—or syndrome. *Progress in Medical Genetics*, 10, 135–222.
- Bull, R. H., & Green, J. (1980). The relationship between physical appearance and criminality. *Medicine, Science and the Law*, 20, 79–83.
- Chorover, S. L. (1979). *From genesis to genocide*. Cambridge, MA: Massachusetts Institute of Technology Press.
- Darwin, C. (1962). *The origin of species* (6th ed.). New York: Macmillan. (Original work published 1859)
- Glueck, S., & Glueck, E. T. (1930). *Five hundred criminal careers*. New York: Knopf.
- Glueck, S., & Glueck, E. T. (1934). *Five hundred delinquent women*. New York: Knopf.
- Glueck, S., & Glueck, E. T. (1956). *Physique and delinquency*. New York: Harper.
- Goring, C. (1913). *The English convict: A statistical study*. London: Darling and Son.
- Gould, S. J. (1981). *The mismeasure of man*. New York: W. W. Norton.
- Herrnstein, R. J. (1974). Formal properties of the matching law. *Journal of the Experimental Analysis of Behavior*, 21, 159–164.
- Hooton, E. A. (1939a). *Crime and the man*. Cambridge, MA: Harvard University Press.
- Hooton, E. A. (1939b). *The American criminal: An anthropological study*. Cambridge, MA: Harvard University Press.
- Jacobs, P. A., Brunton, M., Melville, M. M., Brittain, R. P., & McClellmont, W. F. (1965). Aggressive behaviour, mental sub-normality, and the XYY male. *Nature*, 208, 1351–1352.
- Kozeny, E. (1962). Experimentelle Untersuchungen zur Ausdruckskundemittel photographisch-statistischer Methode. *Archiv für die Gesamte Psychologie*, 114, 55–71.
- Lombroso, C., & Ferrero, W. (1897). *The female offender*. New York: Appleton.
- Lombroso-Ferrero, G. (1972). *Criminal man*. Montclair, NJ: Patterson Smith. (Original work published 1911)
- Mednick, S. A., Gabrielli, W. F., Jr., & Hutchings, B. (1984). Genetic influences in criminal convictions: Evidence from an adoption cohort. *Science*, 224, 891–894.
- Neitzel, M. T., & Milich, R. (1986). Crime and human nature: A psychology of criminality [Review of *Crime and Human Nature*]. *The Behavior Analyst*, 9, 211–218.
- Pyeritz, R., Schrier, H., Madansky, C., Miller, L., & Beckwith, J. (1977). The XYY male: The making of a myth. In The Ann Arbor Science for the People Editorial Collective, *Biology as a Social Weapon* (pp. 86–100). Minneapolis, MI: Burgess Publishing Company.
- Sheldon, W. H. (with the collaboration of S. S. Stevens and W. B. Tucker). (1940). *The varieties of human physique*. New York: Harper.
- Sheldon, W. H. (with the collaboration of S. S. Stevens). (1942). *The varieties of temperament*. New York: Harper.
- Sheldon, W. H. (with the collaboration of E. M. Hartl and E. McDermott). (1949). *Varieties of delinquent youth*. New York: Harper.
- Thornton, G. (1939). The ability to judge crimes from photographs of criminals. *Journal of Abnormal and Social Psychology*, 34, 378–383.

- Watson, J. B. (1925). *Behaviorism*. New York: The People's Institute.
- Wilson, J. Q., & Herrnstein, R. J. (1985). *Crime and human nature*. New York: Simon and Schuster.
- Witkin, H. A., Mednick, S. A., Schulsinger, F., Bakkestrom, E., Christiansen, K. O., Goodenough, D. R., Hirschhorn, K., Lundsteen, C., Owen, D. R., Phillip, J., Rubin, D. B., & Stocking, M. (1976). XYY and XXY men: Criminality and aggression. *Science*, 193, 547-555.