established. We are informed by the then-director of the major adoption agency that adoptive parents were not told of the existence of any sibling to the child they had adopted" (*4*). It seems clear that there was no correlation in rearing SES, adoptive fathers' income, or neighborhood for the members of the sibling pairs. They were placed independently. Thus Moses' concern is without empirical basis.

Moses raises one final point: in analyses which stretch over several generations he fears that changes in conviction rates over the years might produce artifactual correlations between convictions of the adoptees and the biological and adoptive parents. It is also true that during this timespan this area of the world was faced with the Great Depression, World War II, and industrialization. It is conceivable that the influence of genetic factors might interact with or be affected by these social upheavals as well as the changes in conviction rates. We examined this possibility in an earlier publication (*6*). The analyses reported for the entire cohort were repeated for each of five shorter intervals: 1924–1928, 1929–1933, 1934–1938, 1939–1943, and 1944–1947. "The results were virtually identical for all of these periods and virtually identical to the analyses of the total sample. The changes across these years did not interact with the relationships between biological parent and adoptee crime" (*6*).

As in any area of science, this research project does not stand or fall alone. What is ultimately most important about a research result is its replicability. There is a considerable literature on the genetics of antisocial behavior (*7*).

1) Eleven twin studies from 1929 to the present have uniformly shown much higher rates of concordance for convictions or arrests for identical than for fraternal twins. Christiansen, in a study of a total population of twins (n = 3586 pairs), found 52 percent concordance for criminal convictions for identical (male-male) pairs and 22 percent concordance for (male-male) fraternal twin pairs (*8*).

2) Two U.S. adoption studies show concordance between crime in biological parents and crime in their adopted-away offspring (*9*). An investigation of crime in a major Swedish adoptee cohort (*10*) yields findings that agree with ours in just about every detail. These authors point out that "there are no genes for criminality, but only genes coding for structural proteins and enzymes that influence metabolic, hormonal, and other physiological processes, which may indirectly modify the risk of 'criminal' behavior in particular environments."

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7. S. A. Mednick *et al.*, in *Human Development: An Interactional Perspective*, D. Magnusson and V. Allen, Eds. (Academic Press, New York, 1983).
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Jumping Frog Genes

In the article "Frog genes jump species" (Research News, 23 Nov., p. 955), Roger Lewin describes the second and more likely origin of the *Rana ridibunda* individuals with mitochondrial DNA of an *R. lessonae* type as being a cross between an *R. lessonae* female and an *R. ridibunda* male. However, this cross would produce an *R. esculenta* hybrid, as described previously in the article. The original authors refer (*1*) to a cross between an *R. esculenta* female and an *R. ridibunda* male.

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Erratum: In the report "Antibodies to peptides detect new hepatitis B antigen: Serological correlation with hepatocellular carcinoma" by A. M. Moriarty, H. Alexander, G. B. Thornton, and R. A. Lerner (25 Jan., p. 429), the legend of table 1 should have begun, "Reactivity of human serum samples with peptide 99 and peptide 142," not "Reactivity of human liver samples. . . ."