"MIGHT NOT BE A TOMORROW": A MULTIMETHODS APPROACH TO ANTICIPATED EARLY DEATH AND YOUTH CRIME*

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Several researchers point to the anticipation of early death, or a sense of "futurelessness," as a contributing factor to youth crime. It is argued that young people who perceive a high probability of early death may have little reason to delay gratification for the promise of future benefits, as the future itself is discounted. Consequently, these young people tend to pursue high-risk behaviors associated with immediate rewards, which include crime and violence. Although existing studies lend support to these arguments and show a statistical relationship between anticipated early death and youth crime, this support remains tentative. Moreover, several questions remain regarding the interpretation of this relationship, the meanings that offenders attach to the prospect of early

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death, and the cognitive processes that link anticipated early death to youth crime. In this article, we address the limitations of previous studies using a multimethods approach, which involves the analyses of national survey data and in-depth interviews with active street offenders.

Prior criminological research has served to highlight the risks of offending behavior. These risks include many long-term negative consequences that may accrue to offenders over the life course, such as reduced life chances, poor health, and incarceration (Hagan, 1991, 1997; Moffitt, 1993; Robins, 1966; Sampson and Laub, 1993, 1997; Tanner, Davies, and O'Grady, 1999). These risks also include immediate physical dangers—such as injury, paralysis, or death—that exist in the "foreground" of the criminal lifestyle and that may result from crime victim retaliation, attacks by rival offenders, or police action (Dobrin, 2001; Hoffman, 2004; Jacobs, Topalli, and Wright, 2000; McCarthy and Hagan, 2005; Sampson and Lauritsen, 1990; Topalli, Wright, and Fornango, 2002; Tremblay and Paré, 2003).

At the same time, criminological research has highlighted the existence of hard-core offenders who seem to be fearless in the face of these dangers (Anderson, 1994, 1999; Hoffman, 2004; Jacobs, Topalli, and Wright, 2000; McCarthy and Hagan, 2005; Topalli, 2005a). This population includes individuals who have experienced stabbings, shootings, or other life-threatening injuries and yet remain undeterred from a risky and criminal lifestyle (Hoffman, 2004). In the words of one such offender, "I don't give a damn. I don't care what happens really . . . whether they kill us or we kill them" (Topalli and Wright, 2004: 164).

To account for the fearless and uninhibited conduct of some offenders, several theorists have underscored the sense of hopelessness and fatalism that is said to pervade economically distressed, high-crime communities (Anderson, 1994, 1999; Garbarino et al., 1992; Kitwana, 2002; Lorion and Saltzman, 1993; Wilson and Daly, 1997). When young people believe they have no future, it is argued, they have little to lose by engaging in crime or violence. This argument is perhaps most explicit in rational choice accounts. For example, Wilson and Daly (1997) propose that urban youth violence is partly attributable to expectations of early death, which tend to develop in neighborhoods that suffer a high mortality rate. "If a young man's grandfathers were both dead before he was born, for example, and some of his primary school classmates had already died," the tendency to discount the future, and to pursue risky activities that produce immediate rewards, "could be a normal, adaptive reaction" (Wilson and Daly, 1997: 1274; also see Gardner, 1993; Hill, Ross, and Low, 1997).

This argument is also expressed in subcultural accounts of youth violence, most notably in the ethnographic works of Elijah Anderson (1994, 1999). To account for the high rates of youth violence he observed in various inner-city neighborhoods, Anderson highlights the need expressed by many disadvantaged young males to maintain respect in public encounters and the willingness of some to risk injury or even death "over the principle of respect" (1994: 92). This fearless attitude toward violence is said to be rooted in the perceived possibility of early death: "Many are uncertain about how long they are going to live and believe they could die violently at any time. They accept this fate; they live on the edge" (1994: 94).

Although systematic data in this area are limited, a handful of quantitative studies have examined the relationship between future life uncertainty (e.g., perceived likelihood of dying before age 25) and youth crime. In general, these studies provide tentative empirical support for the idea that anticipated early death is associated with youth crime and violence (Caldwell, Wiebe, and Cleveland, 2006; DuRant et al., 1994; also see Agnew, 2002; Wilson and Daly, 1997). Yet, as described below, questions remain regarding the nature of this association and whether the anticipation of early death is indeed a contributing factor to offending behavior. Moreover, the nature of this relationship may be more complex than suggested by previous studies.

In this study, we seek to advance research on the relationship between anticipated early death and youth crime. To enrich our understanding of this relationship, we adopt a multimethods strategy, combining complementary quantitative and qualitative studies. Multimethod approaches allow researchers to combine the scientific objectivity afforded by quantitative techniques with a rich understanding of context that can only be derived through qualitative interviews with offenders. In study 1, we seek to overcome the limitations of previous quantitative studies by using longitudinal data from a large and nationally representative survey of adolescents. In study 2, we draw on data from an ongoing ethnographic study of active street offenders to inform our interpretation of the quantitative findings and to deepen our understanding of offenders' attitudes toward death and the risks of criminal activity.

We believe that a closer examination of this issue, employing the strategy described above, is important for several reasons. First, the findings of our quantitative and qualitative analyses may help to advance our understanding of the causes of youth crime and violence, and these findings may have implications for the credibility of existing theoretical accounts (Anderson, 1994, 1999; Hill, Ross, and Low, 1997; Wilson and Daly, 1997). Second, it is necessary to address the limitations of prior research and to substantiate the previously observed relationship between anticipated early death and crime to move beyond basic questions in this area—a task

for which multimethod procedures are particularly well suited. As described below, a multimethods approach can help to expose the cognitive processes that mediate this relationship and may point to new directions for future criminological research. Third, our findings may have implications for the control of youth crime and violence. For example, efforts to deter criminal offenders by increasing the future costs of crime may have little impact if, in fact, offenders tend to discount the future (Anderson, 1994; Hill, Ross, and Low, 1997).

EXISTING THEORY AND RESEARCH

Participation in risky behaviors such as crime or violence often leads to undesirable outcomes with potentially deadly consequences (Hill, Ross, and Low, 1997). As emphasized by Ross and Hill (2002: 461), risk taking is defined as "*behavior that jeopardizes well-being or survival*" (emphasis in original). From a rational-choice perspective, it follows that expectations about future well-being or survival—such as the anticipation of early death—would influence a decision to engage in risk taking (Caldwell, Wiebe, and Cleveland, 2006; Gardner, 1993; Hill, Ross, and Low, 1997; Wilson and Daly, 1997). Drawing on concepts from life history theory and informed by a Darwinian/adaptationist framework, Hill, Ross, and Low (1997) propose an analytical model of risk taking that incorporates an emphasis on future unpredictability and "life span estimates." Specifically, they predict a lower willingness to engage in risky behavior among individuals who believe that life is predictable and who can foresee a future. Such persons tend to be forward looking and orient themselves, in part, to the future costs and benefits of their actions.

In contrast, individuals who view the future as uncertain or unpredictable, and who lack confidence in their survival, are expected to be focused on the "here and now." Because they view the future itself as uncertain, the future consequences of behavior are discounted, whereas the immediate benefits of behavior become salient. This orientation should be associated with an increased willingness to engage in risky behaviors, including aggression (Hill, Ross, and Low, 1997; also see Wilson and Daly, 1997). In short, "delaying present gratification for future rewards makes no sense without a long, stable future to look forward to" (Caldwell, Wiebe, and Cleveland, 2006: 600).

This rational choice approach fits well with prior research that serves to highlight the impulsive lifestyles of hardcore street offenders. These lifestyles include hedonistic, self-perpetuating boom-and-bust "partying" cycles focused on drug use, sex, materialistic pursuits, and indiscriminate lawlessness (Jacobs, 2000; Jacobs, Topalli, and Wright, 2000, 2003; Katz,

1988; Shover, 1996; Shover and Honaker, 1992; Topalli, Wright, and Fornango, 2002; Wright and Decker, 1994, 1997).

Moreover, future uncertainty—including the anticipation of early death—emerges as an explicit theme in several ethnographic studies of criminal offenders. In addition to the works of Elijah Anderson (1994, 1999), which were described earlier, these studies include Topalli and Wright's (2004) study of active carjackers in St. Louis, Missouri (also see Jacobs, Topalli, and Wright, 2003), and Hoffman's (2004) study of inner-city offenders in Boston and Los Angeles. Topalli and Wright (2004: 162) observe that many of the offenders in their study display an "almost complete disregard" for the future consequences of their risky criminal pursuits. Although the authors did not focus on life expectancy per se, the responses of their interviewees suggest that this disregard for future consequences may be related to future uncertainty. For example, when asked how he spends the money he makes from carjacking, one offender responded with the following (2004: 162):

> Just get high, get high. I just blow the money. . . . So everyday, there's not a promise that there'll be another [day] so I just spend it, you know what I'm saying?

Hoffman (2004) observes that, among the offenders she interviewed, the prospect of an early death was accepted as part of day-to-day life in the inner city. According to Hoffman, the young people in her study "accepted the likelihood of [early] death as normal or expected"—an expectation that fostered feelings of powerlessness, worthlessness, and the belief that there is "little else to lose" (2004: 62–75). Moreover, this expectation of an early demise, or of limited life chances, was reinforced by the views of other people in their lives. In the words of one young offender (2004: 112):

> Everybody said, "You ain't never going to make it, you are going to end up dead or you are going to be in prison and you're going to catch 25-to-life, you're going to do this."

Although highly suggestive, these qualitative studies were not specifically designed to examine the relationship between anticipated early death and youth crime. The findings are consistent with the results of quantitative research in this area, however. Although we are not aware of any quantitative studies that focus primarily on the anticipation of early death, relevant findings have been reported in the quantitative research literature and increase confidence in the qualitative work described above.

For example, DuRant et al. (1994) explored the correlates of violent behavior in a sample of adolescents living in or around public housing projects in Augusta, Georgia. In this sample, self-reported violent behavior was moderately and negatively correlated (–.18) with a self-rating of

survival probability. In particular, the belief that one would reach 25 years of age was associated with a lower level of violent behavior (conversely, the belief that "I won't live to be 25" was associated with a higher level of violence).

In a study of risk taking by Hill, Ross, and Low (1997), community college students and their acquaintances assessed their own chances of being alive, healthy, financially secure, and happily married at various ages. Their estimates were used to construct a "future life span assessment" scale, which was found to be negatively correlated (–.22) with a scale of risk-taking behavior. Respondents who perceived a long and stable future tended to report a relatively low level of risk taking. Although the risk-taking scale did not focus on criminal behaviors per se, it included such items as "fighting or arguing" with teachers, supervisors, or strangers.

Agnew (2002) observed a relationship between "anticipated victimization" and delinquency in a sample of male high-school students. The measure of anticipated victimization was based on responses to three survey items that indexed the perceived chances of being stabbed with a knife, shot with a gun, and dying before the age of 25. This measure exhibited a significant positive effect on delinquency (property crimes and violence) in multivariate analyses, controlling for family attachment, demographic factors, and other variables.

Finally, Caldwell, Wiebe, and Cleveland (2006) observed an association between future certainty and delinquent behavior in a national sample of African-American adolescents. The authors constructed a measure of "basic life certainty" based on responses to three survey items that indexed the perceived chances of contracting HIV or AIDS, living to the age of 35 years, and being killed by age 21. This measure was negatively associated with delinquent behavior (lying, shoplifting, fights, and selling drugs) in multivariate analyses, controlling for household income, neighborhood disadvantage, family structure, and other variables. In short, respondents who estimated a long life span tended to report a relatively low level of delinquency.

LIMITATIONS OF PREVIOUS RESEARCH

Collectively, these studies point to a significant association between the anticipation of early death and youth crime. The limitations of these studies, however, preclude firm conclusions, and several questions remain unanswered. First, with respect to quantitative research in this area, prior studies have controlled for a limited range of confounding factors. Individuals who anticipate an early death may suffer from a variety of other negative circumstances, and it may be these other circumstances that actually

drive offending. To rule out a spurious relationship, it is important to control for other possible determinants of offending behavior that may be correlated with anticipated early death (e.g., family process variables, child abuse, parental criminality, and community-level factors).

Second, all the studies described earlier are based on cross-sectional data, and many rely on small and geographically limited samples. Such data often leave in doubt the causal direction of observed relationships. Although researchers typically assume that the anticipation of early death is a contributing factor to youth crime and violence, the reverse may also be true; that is, participation in a dangerous, criminal lifestyle may lead to the perception that one is at risk of a shortened life span. In the words of one offender who was interviewed for this project:

> I used to always think something bad would happen to me. Like someone has to pay for this bad stuff [criminal activity]. You know what man, like they say. . .what comes around goes around. (Boo, age 20).

Alternatively, young people who are already committed to a criminal lifestyle may have an interest in portraying themselves as fearless and even as courting death. According to Katz (1988: 233), some offenders pride themselves on their "hardman" image—having the ability to face chaos and death "without a quiver or a qualm" (also see Åkerström, 1985; Topalli, 2005a). Although it would be unreasonable to expect studies in this area to resolve the issue of causal order completely, longitudinal data would be useful and could provide the basis for drawing reasonable causal inferences (see Sampson and Laub, 1993: 39).

Third, currently we have little knowledge of how offenders process expectations regarding their future survival or how such expectations affect their attitudes toward crime. Although prior qualitative studies on criminal decision making shed some light in this area (Anderson, 1994, 1999; Hoffman, 2004; Topalli and Wright, 2004), these studies were not specifically designed to assess offenders' perceptions and expectations regarding the prospect of early death. In short, the psychological underpinnings of these processes and how they encourage participation in crime are not well understood.

In this article, we address these issues by conducting two complementary analyses. In study 1, we analyze longitudinal data from a nationally representative survey of adolescents within an econometric framework. The aim of this study is to assess the relationship between anticipated early death and youth crime while controlling for a wide range of observable variables (e.g., numerous indicators of socioeconomic status, history of abuse, and parental criminality) as well as unobservable factors (unobserved heterogeneity) that operate at the levels of the family, county, and

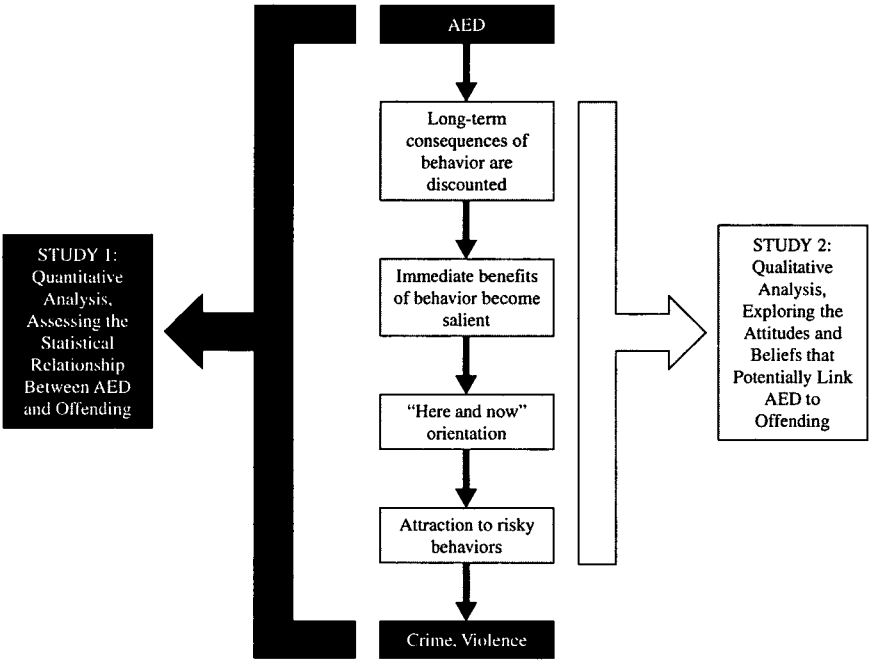
state. In addition to controlling for an unusually rich set of characteristics that are likely to be correlated with both criminal behavior and anticipation of early death, we also use data from a large sample of twins and siblings to eliminate other potential confounders (e.g., the effects of unobserved variables). The advantage of this quantitative strategy is that it allows us to delineate, with greater confidence, the statistical relationship between youths' anticipation of early death and their involvement in crime.

However, such an analysis does not allow us to explore the meanings that offenders attach to the prospect of early death or how such meanings impact their decisions to offend. To complete our understanding of how anticipated early death leads to increased offending, it is necessary to access information that offenders themselves have (see Feeney, 1986).

Therefore, in study 2, we draw on interview data obtained from a sample of active street offenders. We engaged each study participant in an in-depth discussion specifically designed to tap their perceptions regarding the risk of early death. This second study complements our quantitative analyses by shedding light on the cognitive processes (e.g., the discounting of future consequences and a "here and now" orientation) that potentially link anticipated early death with criminal involvement—processes that, in previous quantitative studies, have typically been inferred. Because qualitative methods can help to expose such processes, their use in the final stages of large *N* studies is recommended (Ragin, Nagel, and White, 2004). In addition, qualitative methods "can be helpful in assessing the credibility" of causal mechanisms posited by theorists (2004: 15).

Figure 1 illustrates the conceptual model guiding our multimethods approach. As shown in figure 1, we use quantitative methods to examine the statistical relationship between anticipated early death and offending (study 1). In study 2, we draw on in-depth interviews to explore the perceptions, attitudes, and beliefs that may link anticipated early death to offending, as highlighted by various theorists.

Figure 1. Conceptual and Methodological Model Linking AED to Criminal Behavior



STUDY 1: SURVEY DATA ANALYSES

DATA

The data for study 1 were drawn from the National Longitudinal Study of Adolescent Health, which is also known as Add Health.[1] The Add Health uses a school-based clustering sample design. An in-school survey was administered to 90,118 students in 132 schools between September 1994 and April 1995. Students in each school were stratified by grade and sex, and about 17 students were randomly chosen from each stratum for in-home interviews, so that a total of approximately 200 adolescents were

1. The Add Health is a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris, and it was funded by Grant P01-HD31921 from the National Institute of Child Health and Human Development, with cooperative funding from 17 other agencies. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from Add Health should contact Add Health, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524 (e-mail: addhealth@unc.edu).

selected from each of the 80 pairs of schools.[2] With the addition of special oversamples based on ethnicity, disability status, and genetic information, the wave 1 of Add Health was administered to 20,745 adolescents between April and December 1995. The adolescents were interviewed for the second time between April and August 1996 for wave 2. Respondents who were in the 12th grade at wave 1 and who were not part of the genetic sample were not interviewed at wave 2. Also respondents who were in only the wave 1 disabled sample were not reinterviewed. The second wave surveyed 14,738 adolescents.[3]

The survey includes many detailed questions about the delinquent behavior of adolescents.[4] Specifically, respondents were asked in both waves whether they had committed any of the following acts in the 12 months prior to the interview date: theft, damaging property, burglary, assault, robbery, pulling a gun or knife on someone else, and shooting or stabbing someone else. We created binary variables to indicate whether

2. The Add Health sampling frame ensured that 80 high schools were selected based on the region of country, urbanicity, size, type, and ethnicity. Each participating school was then matched with feeder schools that included a 7th grade and sent at least five graduates to that high school. This recruitment effort resulted in 80 pairs of schools. However, because some high schools spanned grades 7 through 12, a separate feeder school was not recruited for them and they served as their own feeder school. As a result, 132 schools were included in the core study.

3. To assess the potential impact of sample attrition on our analyses, we compared the adolescents who participated in waves 1 and 2 with those who participated in wave 1 but not in wave 2 in terms of their criminal propensities and their anticipations of early death. The differences in means between the two groups are statistically significant only for three (graffiti, property damage, and theft) of the eight offending behavior outcomes. Furthermore, a particular pattern was not observed in terms of the size of the means for these variables between the two groups. That is, it does not seem to be the case that those who drop out of the sample between waves 1 and 2 have less (or more) criminal propensities than those who stay in the sample. Similarly, the means of the anticipated early death dummies are similar between the two groups. We also estimated cross-sectional models of the relationship between the anticipated early death and crime variables separately for these two samples. The coefficients of the early anticipated death dummies were similar in these analyses. Therefore, we conclude that sample attrition is not a major concern.

4. Survey administrators took several steps to maintain data security and to minimize the potential for interviewer or parental influence. First, respondents were not provided with any printed questionnaires. Rather, all data were recorded on laptop computers. Second, for sensitive topics, such as delinquent behavior, substance use/abuse, and gun availability, the adolescents listened to prerecorded questions through earphones and entered their answers directly on the laptops. The rates of criminal behaviors reported in the Add Health are consistent with those measured in other sources (Mocan and Tekin, 2005, 2006).

respondents engaged in each of these behaviors during the previous 12 months.

Questions were also posed to individuals regarding expectations about their life span. Specifically, they were asked about the chances they will: 1) "live to age 35" and 2) "will be killed by age 21." Possible responses to each survey item include "almost no chance," "some chance, but probably not," "a 50-50 chance," "a good chance," and "almost certain." For each item, we created three binary indicators to represent the following response categories: 1) less than a 50 percent chance, 2) a 50 percent chance, and 3) more than a 50 percent chance.

The richness of the Add Health survey data allows us to control for an unusually extensive list of characteristics representing the socioeconomic backgrounds of respondents. Specifically, we include in our models multiple binary indicators to represent age, gender, various categories of race, Hispanic ethnicity, multiple categories for mother's and father's education, presence of mother and father in the household, an indicator for whether the respondent is the first child, various indicators for birth weight, an indicator for church attendance, various indicators for religion, binary indicators for standard test scores being in various quartiles, family income, welfare status of parents, an indicator for whether the father is the biological or stepfather, whether the respondent was born in the United States, whether the father was ever jailed, whether the respondent spent time in foster care, whether the respondent was a victim of abuse by parents or other caregivers, and weekly allowance of the respondent. These indicators amount to a total of 59 control variables. When possible, we also include state, county, and time indicators in our models.

The definitions and the descriptive statistics of the outcome variables are presented in table 1.[5] Table 1 also displays the descriptive statistics by perceived probability of being killed by 21 and living up to age 35. We have a total of 34,780 observations from waves 1 and 2 combined. About 60 percent of the observations come from wave 1 and the rest come from wave 2. Of the 34,780 observations, 1,308 indicated that they had less than a 50 percent chance of living up to age 35, 14,977 indicated that they have about a 50-50 chance of living up to age 35, and 18,495 indicated that they have a more than 50 percent chance of living up to age 35. A total of 29,221, 4,948, and 611 observations indicated that they had a less than 50 percent, about 50-50, and more than 50 percent chance of being killed by age 21, respectively. As illustrated in table 1, individuals who have a less

5. In the interest of space, we do not discuss the descriptive statistics in detail, but they are available from the authors upon request. However, they are mostly consistent with one's expectations as well as with the relevant literature.

confident view of their chances of living beyond ages 21 and 35 are more likely to engage in all of our measures of offending behavior.

ECONOMETRIC FRAMEWORK

As explained, our "life span estimate" measures are based on the individual's own perception of his/her likelihood of dying before age 21 and his/her likelihood of living at least until age 35. We believe these variables constitute good proxies for a person's anticipation of early death, and they are also consistent with the measures used in previous research. Our goal is to estimate the effects of anticipated early death on offending behaviors among adolescents. The empirical relationship between offending behavior and anticipated early death can be specified in the following form:

$$Y_{ist} = \mathbf{X}_{ist}\,\beta + \alpha\,AED_{ist} + \lambda_i + \kappa_s + t_t + \varepsilon_{ist} \quad (1)$$

where Y_{ist} is one of the offending behavior outcomes of individual i living in state (or county) s in year t; $\mathbf{X}$ is a vector of individual and family level determinants of risky behaviors; AED is one of the anticipated early death (or perceived life span) measures; λ_i is a vector of binary respondent indicators; κ_s is a vector of state (or county) indicators; t_t is a time indicator; and ε_{ist} is an idiosyncratic disturbance term. The coefficient of interest in equation 1 is α.

Two sources of endogeneity in equation 1 might cause α to be biased. The first, statistical endogeneity, results from the unobserved determinants of offending behavior (or unobserved heterogeneity) that may be correlated with anticipated early death. For example, offending behavior may also be a function of local deterrence (e.g., number of police officers or the harshness of penalties) or economic conditions (e.g., the unemployment rate). These local characteristics and conditions can impact offending behavior while being correlated with anticipated early death. As another example, individuals from certain socioeconomic backgrounds may anticipate early death because of poor economic prospects. These individuals may also be more likely to commit crime. In this case, it is the socioeconomic conditions that are responsible for offending behavior and not the anticipation of early death. Therefore, these factors need to be accounted for to avoid biased estimates. The second source of endogeneity, structural endogeneity, comes from the potential reverse causality from offending behavior to anticipation of early death. As described, participation in crime may affect the perceptions that individuals develop about, among other things, the risk of dying.

To deal with the statistical endogeneity, we adopt several strategies. First, we use the richness of the Add Health by controlling for many individual and family background characteristics (these background characteristics have been described already). In addition, Add Health is

Table 1. Definitions and Descriptive Statistics

Variable	Definition	Full sample	Probability live 35 < 50%	Probability live 35 = 50%	Probability live 35 > 50%	Probability killed 21 < 50%	Probability killed 21 = 50%	Probability killed 21 > 50%
Burglary	=1 if go into a house or building to steal something, =0 otherwise	.062 (.242)	.133 (.339)	.074 (.262)	.047 (.213)	.057 (.231)	.086 (.281)	.132 (.339)
Graffiti	=1 if paint graffiti or signs on someone else's property or in a public place, =0 otherwise	.083 (.276)	.140 (.347)	.099 (.297)	.068 (.251)	.077 (.267)	.109 (.312)	.164 (.371)
Assault	=1 if hurt someone badly enough to need bandages or care from a doctor or nurse, =0 otherwise	.143 (.350)	.240 (.427)	.162 (.368)	.122 (.327)	.132 (.339)	.195 (.396)	.259 (.438)
Property damage	=1 if deliberately damage property that belongs to someone else, =0 otherwise	.160 (.367)	.232 (.422)	.174 (.379)	.144 (.351)	.154 (.361)	.187 (.390)	.231 (.422)
Theft	=1 if steal something worth more than $50, =0 otherwise	.048 (.214)	.111 (.314)	.061 (.240)	.033 (.179)	.042 (.199)	.076 (.265)	.137 (.344)
Robbery	=1 if use or threaten to use a weapon to get something from someone, =0 otherwise	.090 (.286)	.153 (.360)	.102 (.302)	.076 (.265)	.084 (.278)	.117 (.321)	.145 (.353)
Pulled knife or gun	=1 if pulled a gun or knife on someone else, =0 otherwise	.036 (.187)	.111 (.314)	.048 (.214)	.021 (.144)	.028 (.165)	.070 (.255)	.150 (.358)
Shot or stabbed	=1 if shot or stabbed someone else, =0 otherwise	.027 (.162)	.087 (.282)	.037 (.188)	.015 (.121)	.021 (.144)	.051 (.220)	.104 (.306)
Observations		34,780	1,308	14,977	18,495	29,221	4,948	611

NOTES: Mean scores shown, with standard deviations in parentheses. All the variables refer to the past 12 months.

accompanied by a rich contextual database with county- and state-level variables that, in principle, could be included in our models. Instead, we adopt a more effective strategy and estimate our models with county identifiers. This strategy, which is also called fixed effects, gauges all county-level conditions or attitudes toward offending behavior that may also be correlated with anticipated early death. This allows us to avoid the risk of leaving out any relevant local variables. With county fixed effects, the identification of the effect of our AED variable comes from the variation in this variable across individuals living within the same county. Because county fixed effects also capture the impact of any local policy or attitude variables at the county level, these variables cannot be included in our models separately. However, this is not a concern because the effects of those variables are not the focus of the current research.

In addition to estimating models with county fixed effects, we also exploit the fact that we have data from the same adolescents at multiple points in time and control for all the time-invariant unobservables of individuals. This is implemented by including individual indicators (or individual fixed effects) into equation 1.[6] Controlling for individual fixed effects is a powerful way to account for unobserved heterogeneity that is time invariant. Conditions related to socioeconomic status and adverse childhood experiences (e.g., parental education, low birth weight, or potential maltreatment by parents or caregivers in the past) are automatically controlled for in this framework. However, estimates may still be biased if time-variant unobservables are correlated with both anticipation of early death and offending behavior.

As another attempt to eliminate unobserved heterogeneity that would bias the α, we will also use the genetic subsample in Add Health. Twins and siblings are overrepresented in Add Health, which allows us to control for unobservables and observables common to both siblings, such as socioeconomic status and parental characteristics that would be correlated with both AED and criminal propensities. This is implemented by including family identifiers (or family fixed effects), which is equivalent to estimating an equation of the following form:

$$Y_{ist} = \mathbf{X}_{ist}\,\beta + \alpha\,AED_{ist} + FAMID_{i} + \varepsilon_{ist} \qquad (2)$$

In equation 2, the number of variables in vector **X** is much smaller, because most of them do not vary between siblings (e.g., parents' education, family income, or welfare status). FAMID is a vector of binary indicators that represent the family of each respondent. Family fixed

6. Because individual fixed effects gauge for all the time-invariant characteristics of individuals, all time-invariant observables in vector X drop out of the model, such as race, gender, childhood maltreatment, and so on.

effects would also gauge both time-variant and time-invariant family factors as long as they are common to the members of the same family. Therefore, controlling for family fixed effects is an attractive way of dealing with statistical endogeneity. However, the sample size is much smaller than in the individual fixed-effects model.

To deal with the structural endogeneity, we estimated our models using the offending behaviors from wave 2 and anticipation of early death measures from wave 1. The anticipation of early death in wave 1 can influence offending behaviors in wave 2, but the reverse is not possible. Note that individual fixed effects cannot be included in these models because each individual appears only once in the analysis. Estimates obtained from this exercise did not change any implications of the results presented in this article. Note that this is a crude approach to dealing with this issue because we only have one lag of data.[7]

Because our outcomes are binary, we estimate linear probability models using ordinary least squares (OLS). The coefficients of a linear probability model can be interpreted as marginal effects and are extensively used by economists and other social scientists (Blau and Tekin, 2007; Chou, Rashad, and Grossman, 2005; Mocan and Tekin, 2006; Tekin and Markowitz, 2008). It is well known that OLS estimates of coefficients in linear probability models are consistent estimates of average probability derivatives, but standard error estimates are biased as a result of heteroskedasticity (Angrist and Krueger, 1999). Therefore, we report standard error estimates that are corrected for any form of heteroskedasticity. An alternative to the linear probability model with fixed effects is a conditional logit model. Reestimating our baseline models with conditional logit did not change the current implications of the findings in any significant way. These estimates are available from the authors upon request.

RESULTS OF STUDY 1

We begin by presenting the results from the estimations using pooled data from waves 1 and 2.[8] Because the results from the models with state fixed effects are virtually identical to those with the county fixed effects, we only present those with the county fixed effects. In each table, we present the results from the models of the probability of being killed by age 21 in the upper panel and the results from the models of the probability of living up to age 35 in the lower panel. As shown in table 2, respondents

7. Furthermore, this approach provides insight into the effect of wave 1 anticipated early death on wave 2 offending behavior, although we are interested in the contemporaneous relationship between the two.
8. Estimating cross-sectional models using only wave 1 or wave 2 produced similar results.

Table 2. OLS Estimates of the Effects of AED on Offending Behaviors—Wave 1 and Wave 2

	Burglary	Graffiti	Assault	Property damage	Theft	Robbery	Pulled knife or gun	Shot or stabbed
Probability of being killed by 21 < 50%	−.023***	−.031***	−.052***	−.042***	−.028***	−.030***	−.035***	−.025***
	(.004)	(.005)	(.006)	(.006)	(.004)	(.005)	(.004)	(.003)
Probability of being killed by 21 > 50%	.044***	.045***	.041**	.033*	.056***	.034**	.073***	.051***
	(.014)	(.016)	(.018)	(.018)	(.014)	(.015)	(.015)	(.013)
Probability of living up to 35 < 50%	.053***	.034***	.057***	.055***	.041***	.053***	.057***	.047***
	(.009)	(.010)	(.012)	(.012)	(.009)	(.010)	(.009)	(.008)
Probability of living up to 35 > 50%	−.022***	−.032***	−.030***	−.048***	−.023***	−.024***	−.019***	−.016***
	(.003)	(.003)	(.004)	(.004)	(.002)	(.003)	(.002)	(.002)
County fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	34,479	34,460	34,462	34,461	34,482	34,483	34,504	34,497

NOTES: Heteroskedasticity corrected robust standard errors are in parentheses.
*$p < .10$; **$p < .05$; ***$p < .01$.

who perceive a less than 50 percent chance of being killed by age 21 are less likely to commit any of the offending behaviors analyzed compared with those who perceive a 50-50 chance of being killed by age 21. Furthermore, respondents who estimate their chance of being killed by age 21 at greater than 50 percent are more likely to commit any of these offenses compared with those who estimate a 50-50 chance. Specifically, when the perceived chance of being killed by age 21 is greater than 50 percent, the probability of offending behavior increases by 3.3 percentage points (property damage) to 7.3 percentage points (pulling a knife or gun).

Similarly, respondents who perceive a less than 50 percent chance of living to age 35 are more likely to commit any of the eight offending behaviors compared with those who perceive a 50-50 chance of living to age 35, and respondents who estimate the probability of living to age 35 at greater than 50 percent are less likely to commit these actions compared to those who estimate a 50-50 chance. Specifically, when the perceived chance of living to age 35 is less than 50 percent, the probability of offending behavior increases by 3.4 percentage points (graffiti) to 5.7 percentage points (assault and pulling a knife or gun); when the perceived chance of living to age 35 is greater than 50 percent, the probability of offending behavior is reduced by 4.8 percentage points (property damage) to 1.6 percentage points (shooting or stabbing). Furthermore, all 32 coefficients are estimated with statistical significance at conventional levels.

In table 3, we present our results from the sibling fixed effects. Note that this sample uses the sibling (and twins) subsample to control for all the observable and unobservable factors that are common between siblings such as socioeconomic status. Despite these extensive controls and a substantial reduction in the sample size, we find considerable evidence for an effect of anticipated early death on offending. With the exception of four coefficients (involving burglary, shot or stabbed, for those with a greater than 50 percent chance of being killed by 21; and burglary, assault, for those with a less than 50 percent chance of living to age 35), all coefficients have the expected positive and negative signs and several remain statistically significant.

Finally, in table 4, we control for individual fixed effects exploiting the fact that each adolescent is observed twice in Add Health across waves 1 and 2. This method is similar to sibling fixed effects in terms of controlling for the unobserved heterogeneity that would bias our estimates. Again, despite the extensive controls in individual fixed effects, we find considerable evidence to support the presence of an effect of anticipated early death on adolescent offending. With the exception of two coefficients (those involving graffiti, theft, and individuals with a less than 50 percent chance of being killed by age 21), all coefficients have the expected positive and negative signs and 15 of them are statistically significant.

Table 3. Estimates of the Effects of AED on Offending Behaviors—Sibling Fixed Effects

	Burglary	Graffiti	Assault	Property damage	Theft	Robbery	Pulled knife or gun	Shot or stabbed
Probability of being killed by 21 < 50%	−.014	−.026**	−.035**	−.030**	−.020*	−.000	−.017**	−.013
	(.011)	(.013)	(.015)	(.015)	(.009)	(.014)	(.008)	(.009)
Probability of being killed by 21 > 50%	−.013	.037	.030	.033	.056	.046	.053	−.001
	(.031)	(.037)	(.039)	(.039)	(.035)	(.035)	(.043)	(.027)
Probability of living up to 35 < 50%	−.000	.049**	−.005	.016	.002	.069***	.013	.023
	(.026)	(.024)	(.034)	(.025)	(.022)	(.026)	(.024)	(.022)
Probability of living up to 35 > 50%	−.013	−.019**	−.013	−.035***	−.019***	−.009	−.016***	−.010*
	(.008)	(.008)	(.010)	(.012)	(.006)	(.009)	(.005)	(.006)
Number of observations	7,070	7,065	7,068	7,065	7,071	7,072	7,069	7,068

NOTES: Heteroskedasticity corrected robust standard errors are in parentheses.
*$p < .10$; **$p < .05$; ***$p < .01$.

Table 4. Estimates of the Effects of AED on Offending Behaviors—Individual Fixed Effects

	Burglary	Graffiti	Assault	Property damage	Theft	Robbery	Pulled knife or gun	Shot or stabbed
Probability of being killed by 21 < 50%	.000	.007	−.025**	−.001	.009	−.003	−.012**	−.010*
	(.008)	(.008)	(.011)	(.010)	(.007)	(.010)	(.006)	(.006)
Probability of being killed by 21 > 50%	.035	.060***	.043	.041	.039*	.039	.054***	.021
	(.023)	(.023)	(.030)	(.027)	(.023)	(.026)	(.020)	(.021)
Probability of living up to 35 < 50%	.039**	.033**	.001	.008	.015	.028	.024*	.024*
	(.015)	(.016)	(.020)	(.019)	(.014)	(.017)	(.012)	(.013)
Probability of living up to 35 > 50%	−.000	−.005	−.008	−.017**	−.009**	−.014**	−.008**	−.006*
	(.005)	(.005)	(.008)	(.007)	(.005)	(.007)	(.004)	(.004)
Number of observations	34,649	34,628	34,632	34,628	34,652	34,652	34,673	34,666

NOTES: Heteroskedasticity corrected robust standard errors are in parentheses.
*$p < .10$; **$p < .05$; ***$p < .01$.

The fewer numbers of statistically significant coefficients in sibling and individual fixed-effects models are likely because the identification in these models comes from discordant records in the life span estimate indicators between siblings and between waves 1 and 2, respectively. To the extent that most siblings in a family and the same adolescents between waves 1 and 2 responded identically to these questions, the reduction in the precision of estimates is expected. To support this notion, we see that most of the insignificant coefficients involve "the probability of being killed by 21 > 50 percent" or "the probability of living up to age 35 < 50 percent" dummies. In table 1, we observe that they constitute only 3.8 percent (1,308 adolescents) and 1.8 percent (611) of the total sample, and this is in the sample with observations from waves 1 and 2 combined. Smaller representations of these groups in the sample imply that the discordant reports between siblings in a family and adolescents between waves 1 and 2 will also be fewer. This fact would be expected to lower the statistical significance of their coefficients.

STUDY 1 SUMMARY

In sum, our quantitative analyses have helped to isolate the effect of anticipated early death on offending behavior. In general, this effect remains significant even after controlling for a wide range of observable and unobservable determinants of offending. Moreover, we have taken initial steps to address the possibility of bias due to reverse causality. Overall, our findings help to advance prior quantitative research in this area and increase confidence in the observed relationship between anticipated early death and youth crime.

To gain a better understanding of how offenders process the expectation of early death and how, exactly, it affects their decision making, we now turn to our qualitative analysis.

STUDY 2: INTERVIEWS WITH ACTIVE STREET OFFENDERS

SETTING

As part of an ongoing ethnographic study of offender decision making funded by the National Science Foundation, in-depth interviews were conducted with active offenders recruited from the streets of Atlanta, Georgia. Atlanta is known for being a "primary distribution center" for illicit drugs within the state of Georgia, and it serves as "both a final destination point for drug shipments and a smuggling corridor for drugs transported along the East Coast" (Drug Enforcement Agency, 2008). Moreover, the city of Atlanta suffers a homicide rate that is nearly four times the national average (Federal Bureau of Investigation, 2006).

Recruiters concentrated their efforts in an area of the city known as Central West Atlanta (CWA); historically, this community has suffered high rates of drug trafficking, serious street crime, and youth violence. Although CWA has a core group of residents invested in the safety and improvement of their neighborhoods, most areas within its bounds are dominated by violence, decay, and lack of city services, and these areas do not represent "neighborhood communities" in the conventional middle-class sense (see Inciardi, Horowitz, and Pottieger, 1993). According to the Atlanta Police Department's Crime Analysis Unit, CWA represented only 11 percent (47,016) of the city's population in 2004–2005; yet it accounted for 27 percent of all city homicides, 25 percent of the rapes, 19 percent of the robberies, and 31 percent of the aggravated assaults known to police. CWA is typical of the kinds of environments that researchers have accessed to explore and understand demographic and contextual backgrounds for studies on burglary (Cromwell and Olson, 2004; Cromwell, Olson, and Avary, 1992; Wright and Decker, 1994), robbery and theft (Miller, 1998; Shover and Henderson, 1995; Wright and Decker, 1997), carjacking (Jacobs, Topalli, and Wright, 2003; Topalli and Wright, 2004), drug dealing and drug robbery (Bourgois, 1995; Geter, 1994; Hagedorn, 1994; Jacobs, 1999, 2000, 2006; Jacobs, Topalli, and Wright, 2000; Topalli, Wright, and Fornango, 2002), gangs (Miller, 2001), and street snitching (Rosenfeld, Jacobs, and Wright, 2003).

PARTICIPANTS AND THE RECRUITMENT PROCESS

We employed two different offender-recruiters to identify and locate participants for the study who fell within our stated inclusion criteria (young offenders who were actively involved in serious street crime within the past year[9]). These individuals were African American and focused their recruitment efforts on areas of CWA with which they were well acquainted. CWA is overwhelmingly African American (up to 96 percent in some neighborhoods), and because recruiters engaged with other offenders within their own network of acquaintances, they could not establish any relationships with non–African-American (i.e., white, Latino, or Asian) offenders. As a result, the sample almost certainly overrepresents African Americans and is therefore less than a true representation of the overall population of street offenders (in Atlanta or other similar cities). However, it is important to note that although race is correlated with involvement in crime and violence (i.e., a risk *marker*), several

9. It is important to note that the offenders were recruited based on their past behavior, not because they were identified by our recruiters as individuals who anticipated an early death. In fact, our recruiters were blind to this hypothesis in our research.

studies have amply determined that it is almost certainly not the cause (i.e., a risk *factor*) of such behaviors (see, for example, Almgren et al., 1998; Cook and Laub, 1998; Lauritsen, Sampson, and Laub, 1991; Satcher, 2001). It is therefore logical to assume that the ecological context within which these offenders operate would produce similar patterns of behavior among members of other races.

Moreover, this sample of offenders is especially well suited for an in-depth study of anticipated early death and its impact on criminal decision making. As Bell and Jenkins (1993: 53) observe, questions about future orientation are particularly relevant for young, inner-city black males "who may already feel alienated from a society that is not making a place for them." Furthermore, West (1993: 12–5) observes that a key challenge facing such men is the "eclipse of hope" for the future, born out of a life of hardship, that tends to breed a "coldhearted, mean-spirited outlook" and "incredible disregard" for human life and property.

The offender interviewees received a $50 incentive for their participation in the study (with recruiters receiving a $50 referral fee per successful interview). All participants remained anonymous; we never asked for their real names and assured them that the interviews were to be used solely for the purpose of research. The in-depth interviews lasted from 45 to 120 minutes and were conducted between 2006 and 2008 in a private office on a university campus located in downtown Atlanta or on the streets of CWA (i.e., at fast-food restaurants, public parks, or other outdoor public areas) where the interviewees and the researchers felt comfortable. The interviews followed a predetermined question-and-answer protocol but were semistructured and conducted in an informal manner. This approach allowed participants to respond freely and to introduce their own concepts and categories, providing us with a more comprehensive and rich set of data to explore. This approach has been used successfully in many previous ethnographic studies of active offenders (Jacobs, Topalli, and Wright, 2000; Jacobs and Wright, 1999; Topalli, 2005a; Topalli and Wright, 2004; Wright and Decker, 1994, 1997). Interviews focused on the participants' perceptions of risk—with particular emphasis on the risk of future injury or early death—and the extent to which these perceptions influenced their attitudes and behaviors related to offending.

ISSUES OF INTERNAL VALIDITY

Before discussing the qualitative findings, it is important to comment on the internal validity of the interviews and the possibility of distortion that might originate from interviewees' attempts to impress us, deceive us, or justify their conduct. The possibility of distortion is not unique to our study, but it is an issue that concerns all ethnographic research based on offender interviews. To guard against deliberate dishonesty, we carefully

monitored all interviews, checking for and questioning inconsistent responses. Although this strategy does not eliminate the possibility of distortion, we take confidence in the results of prior research showing that active street offenders are no more likely than anyone else to lie about their circumstances (see Jacobs, Topalli, and Wright, 2000; Wright and Decker, 1994). It should be noted that the same potential for dishonesty exists within any format of research where participants are asked to discuss difficult or personal topics. Previous research on the quality and veracity of offender self-report data supports the contention that semistructured interviews represent the most efficacious method of obtaining valid, relevant information about offending and the psychological processes that govern such behavior (see Huizinga and Elliott, 1986; West and Farrington, 1977; Wright and Bennett, 1990). Beyond that, the internal validity of these kinds of data and procedures has been exhaustively addressed in previous research and need not be fully restated here (see, for example, Jacobs, Topalli, and Wright, 2000, 2003; Jacobs and Wright, 1999; Maher, 1997; Topalli, Wright, and Fornango, 2002; Topalli and Wright, 2004; Wright and Decker, 1997).

RESULTS OF STUDY 2

Our initial interviews with young offenders in Atlanta confirmed research detailed above on the fatalism and sense of "futurelessness" experienced by many inner-city youth (Anderson, 1994, 1999; DuRant et al., 1994; Hoffman, 2004). What soon emerged from our discussions with these young offenders was the conclusion that such fatalism emanated from their day-to-day exposure to violence:

> I grew up with shootin' and fightin' all over. You grew up with books and shit. Where I'm from you never know if you gonna live one minute to the next. It's like a war out there. People die every day. You can go to sleep and hear gunshots all night man, all night. Bullets be lying on the street in the morning. Ambulances and police cars steady riding through my neighborhood, man. (Deathrow, age 19)

These observations on inner-city life echo previous studies of urban violence that have depicted such communities as "war zones," where much of the violence that occurs is public (taking place on the street or in alleys and parks), youth suffer from a high rate of violent victimization, and even young children witness aggravated assaults and murders (Bell and Jenkins, 1993; Garbarino et al., 1992; Hoffman, 2004; Lorion and Saltzman, 1993; Singer et al., 1995).

These experiences with violence contribute to a pervasive sense of fear and vulnerability in such communities (Lorion and Saltzman, 1993) and are indicative of the kinds of events that offenders themselves experience

(see Topalli, 2005b). Moreover, previous research has demonstrated a strong relationship between prior exposure to violence and later perpetration of aggression among youth living in poor urban environments (Eitle and Turner, 2002; Farrell and Bruce, 1997; see also Margolin and Gordis, 2000; Scarpa, 2001, 2003).

Predictably, our interviewees described their own lives and neighborhoods as plagued by the persistent threat of violence. In fact, many claimed to have been shot or stabbed in the past—some multiple times—and could point to scars that, at the least, provided evidence of severe physical trauma. Moreover, they could recall early memories of violence and described an acute awareness of their own vulnerability:

> I've been robbed when I was at school, been ripped off, been shot at. No joke. They shot at my cousins. They shot at my brother. Hell, someone shot at my granny's house. It's fucked up, for real. Cuz, you don't know . . . you just walkin' around, might not even be doin' no shit, and someone just pull up and try to knock you. [Referring to a recent news event] You hear in the news about that little 3 year old kid got shot? He ain't in the game [in the drug dealing business] but he got shot anyhow, right? (Foosey, age 18)

In some interviews, offenders informed us that such bleak outlooks were reinforced by family members and friends, either as a way of informally indoctrinating them into the violent culture they were a part of or as an attempt to scare them into abandoning their lifestyles (also see Hoffman, 2004). Ironically, attempts to scare these young men away from crime by *highlighting their prospects for an early death* may have backfired. When asked about how he had thought about his future, Cris Cris responded as follows:

> I swore that I wasn't gonna see 19. I swear. The way I was goin, I didn't think I was ever gonna see 19. I swear. My aunties used to always say, "man you gonna be dead." My aunties, my whole family. . . . Made me wanna go do some more stuff. Made me wanna go do some more bad stuff.

We are reminded of the poignant questions raised by Bell and Jenkins (1993: 53), who helped to document the violent milieu in which many inner-city young people are immersed:

> How does this very real threat [of community violence], often underscored by frequent attendance at peers' funerals, affect adolescent males' sense of a future? How does a sense of future impact on willingness to engage in risk-taking behaviors, including violence? How is a willingness to form close relationships with others affected when you are not sure about your own future or that of the other person? . . . When does a sense of futurelessness turn into nihilism?

As the interviews progressed, our study participants helped to shed additional light on these issues. Although acutely aware of the risks of violent injury or death, our participants did not dwell overtly on such possibilities. Rather, as all consistently stressed, and as theorized by Hill, Ross, and Low (1997), the possibility of a shortened life span encouraged them to focus on the "here and now." When asked whether they worried about being victimized, Baby Boy and J.R. responded as follows:

> Everyday there's a chance I will get robbed, stabbed, or killed. You know what I'm saying? You put your life on the line every day, every motherfuckin' day. I just take it a day at a time. (Baby Boy, age 21)

> I just take it day by day. . . . I try not to think about danger until it comes by me. If it comes by me, then I think about it. But really, what is the point? Ain't nothing you can do about it, so just need to deal with right now, you know. Right now more important than later tomorrow man. (J.R., age 20)

The narrow focus of our participants on day-to-day events and their avoidance of long-term considerations was impressed on us even more when we specifically asked them to assess the probability of living beyond the next 5 years. Using the survey items from study 1 as a guide, we asked the following questions: "What do you think the chances are that you will be killed in the next 5 years? Would you say greater than a 50 percent chance? About 50/50? Or less than a 50 percent chance?" Almost invariably, our participants struggled to answer this question, not because they failed to understand it, but because—as they explained—it seemed pointless to concern themselves with the "distant" future, especially when their more immediate survival was not something that could be taken for granted. To the extent that they addressed our question directly (and some did), they depicted life as inherently unpredictable, where even *day-to-day* survival amounted to a "crap shoot"—a fact that they accepted but one that also underscored the futility of future planning or even thinking about one's future life chances:

> Will I be alive then [at age 25]? Hmmm, that's a hell of a question, right there. Shit man, I dunno . . . flip a coin. I say an equal chance, a good chance, I could be dead. But there's no point to it, to talk about it. I got to keep on doin' what I be doin' and just see how long it goes. Ain't no point to giving you a number. The number don't mean nothin'. Cuz I got to live another day or I could live forever, you know what I'm saying. (Pac, age 19)

> Shit, who knows? I don't trip off that [the chances of getting killed in the future]. That is not something I think on. It is what it is. Life is short. I don't know what the chance is. Might be dead by 25 so who cares? (Magic Blue, age 22)

> I say fuck tomorrow. It's all about today. Might not be a tomorrow. Might get shot. Might get hit by a bus. So get it now. Now, now, now. Next week might as well be next century. Fuck next week. Fuck tomorrow. (Blue Eyes, age 23)

For some of our participants, dwelling on an uncertain future was not only pointless, but thinking *too much* about the prospect of getting killed was unsettling and possibly a distraction from the task of offending—even if the prospect did remain in the back of their minds:

> It's a waste to think about the future. What if someone pops me while I'm slingin' [dealing drugs], then what? I got shit to do man. I can't think about that stuff. (Ookie, age 19)

> I don't think about it like on a[n] everyday basis. I mean I think about it only sometimes like maybe if I'm alone or maybe something happened to somebody, or like now you asked me to put a number on it. But, if you asking me that question now, here, I just say it's like a good chance, like 50 percent. But I don't know. I mean, I really don't wanna think about it cuz then it make you re-guess yourself. So, it's just something I already dealt with in my mind, it's in the back of my mind, and I don't think on it no more. (PoBoy, age 20)

Although our participants generally viewed early death as a real possibility, none expressed overt fear. Rather, the prospect of an untimely death was accepted as a fact of life. In this sense, the attitudes of our study participants seem to resemble the coping responses that develop among individuals in war-torn countries. In an article titled, "When death seems inevitable," war correspondent Robert Cox (2006: 8) describes how he managed to function while facing the daily threat of violent death:

> Courage, I discovered while covering the "dirty war" in Argentina, is a relatively simple matter of overcoming fear. I realized one day that I could deal with the idea that I would be killed, simply by accepting it as fact. The knot in my stomach loosened considerably after that. There was no reason to fear being killed once that reality had been accepted. It is fear itself that makes one afraid. . . . Some Iraqi reporters explain that their ability to function is because they accept their inevitable date with death.

As described by some of our active offenders, courage in the face of danger was, in fact, a requirement of their criminal involvement, which included drug dealing, robbery, and carjacking (also see Jacobs, Topalli, and Wright, 2000; McCarthy and Hagan, 2005). In the words of one participant, "You got to be prepared [for the consequences] or you gonna get taken" (Foosey, age 18). Thus, the acceptance of death may facilitate crime because it helps to neutralize the fear that would otherwise be associated with dangerous criminal pursuits.

But the responses of our interviewees suggest several additional ways in which the anticipation of early death may be linked to youth crime. One possibility is that it may discourage the exercise of self-restraint. In the words of Blue Eyes, without the promise of tomorrow, "It's all about today. . . . So get it now." As rational choice theorists have reasoned, when young people lose faith in their future, they also lose the incentive to defer immediate gratification (Hill, Ross, and Low, 1997).

Second, the prospect of an early death, along with extensive exposure to community violence, may contribute to attitudes that justify crime and violence, including desensitization to the consequences of violence, a hostile world view, and disregard for human life (Garbarino et al., 1992; Kotlowitz, 1991; Lorion and Saltzman, 1993; Topalli, 2005a; West, 1993). As some of our participants described:

> My way of lookin' at this is, God gonna take everybody, OK? Gonna take me. Gonna take you. So, what the fuck am I gonna care for anybody? I'm not. I'm gonna get mine, and if I have to kill your ass to do it, so what? You'd kill me wouldn't you? Wouldn't you? So, what's the point? Might as well win. Somebody gotta win, somebody gotta lose. Gotta win until you lose. When you lose you dead. It's like that. (Chazz, age 17)

> There's only a short time in the world for everybody. I'm gonna make yours shorter than mine. Believe that. I don't think about nobody but me and mines, you hear? No sympathy, no way. (Pac, age 19)

In short, these young men seem to embody the nihilism described by West (1993; also see Anderson, 1999; Kitwana, 2002; Kubrin, 2006). For them, death is an omnipresent reality, and they adapt to this reality by embracing the attitudes of the *macho*. The macho feels a need to not be afraid, to always be ready to die, and "to never give in" (Younoszai, 1993: 74). The macho is also angry and violent, and "violence that is not afraid of death is violence that can kill" (Younoszai, 1993: 74). When we commented to Cris Cris that he seemed fearless, he explained:

> CRIS CRIS: I always been like that though since I was young. Ain't never had no father or brothers to protect me or tell me what's up, really I just had to stand my own ground, ain't have nobody to tell me, "man, you don't needa be doin' this." My mom would tell me that but I wouldn't listen to her. She don't know shit. She's a woman. She ain't livin' my life. I feel like I'm the smart one because I know that life is short. Life is short, so it's smart to get yours now. Only the strong survive man. I'm a man, you hear. I live this shit.
>
> INTERVIEWER: Is that why you think you are so fearless?

> CRIS CRIS: That was sorta the reason, cuz ain't wasn't no guarantee I's gonna see tomorrow. That's another reason, see. They's a lot of folks who want me dead. I'm living a real tough life. I had everybody lookin' out for themselves. So, I have to do that too, you know. Ain't no point in being scared because you cannot know [what] you gonna die from. So, I can just, you know, not think about danger and shit. If I see something I want I take it right then because that might be your only chance in this world to get some. Somebody might be shootin' dice on the curb or something, I walk up and take all the money. So like that.

STUDY 2 SUMMARY

We are struck by the apparent overlap between existing, *analytical* models of risk taking—especially those incorporating an emphasis on life span estimates (Hill, Ross, and Low, 1997; Ross and Hill, 2002)—and the accounts provided by our active offenders. Both suggest that anticipated early death is linked to crime, in part, because uncertainty over future survival promotes a disregard for the future consequences of one's actions ("Might be dead by 25 so who cares?"), a focus on immediate rewards and benefits ("Life is short, so it's smart to get yours now"), the development of a "here and now" orientation ("It's all about today"), and attraction to risky behavior ("If I see something I want I take it right then because that might be your only chance in this world to get some"). In this sense, the offender accounts seem to be consistent with prior theorizing in this area (see figure 1).

In addition, our offender accounts suggest that the anticipation of early death may contribute to (or facilitate) criminal involvement by engendering nihilistic attitudes and by neutralizing fear (required to pursue dangerous criminal activity). The convergence of such processes results in young offenders who experience little incentive to abide by the law or refrain from violence. These additional concepts, which were revealed through the use of our interview-based methodology, help to illuminate the nature of the relationship between anticipated early death and criminality.

CONCLUSION

Researchers from a variety of disciplinary backgrounds have pointed to the anticipation of early death, or a sense of "futurelessness," as a possible contributing factor to youth crime and violence (Anderson, 1994, 1999; Lorion and Saltzman, 1993; Wilson and Daly, 1997). Some researchers have incorporated this form of fatalism into analytical models of risk taking (Hill, Ross, and Low, 1997; Ross and Hill, 2002), whereas others have

taken initial steps to assess its empirical relationship to youth crime (Caldwell, Wiebe, and Cleveland, 2006; DuRant et al., 1994). Our goals in this article were to: 1) verify the statistical relationship that has been observed in prior studies using relatively rigorous statistical procedures and 2) deepen our understanding of this relationship with the aid of in-depth interviews with criminal offenders. The ultimate aim of this multimethods approach was to help move us beyond basic questions (e.g., "Is there a non-spurious, statistical relationship between anticipated early death and youth crime?") and to facilitate the exploration of more complicated and nuanced social processes.

Based on a relatively sophisticated approach, our quantitative findings seem to confirm the results of prior studies showing a positive relationship between anticipated early death and youth crime. Moreover, our quantitative findings are echoed in the qualitative interview material we collected from active street offenders. In addition, the results of our longitudinal analyses increase confidence in the assumption that anticipated early death is a contributing factor to youth crime and violence. It is important to note that the design of our longitudinal analyses (in which we examine the effect of time 1 anticipated early death on time 2 offending) does not rule out the possibility of reverse causality (as time 1 anticipated early death could still be a function of pre-time 1 offending), and thus, any conclusions regarding causal ordering remain tentative. Nevertheless, although our study does not fully resolve the issue of casual ordering, we believe our attempts to control for unobserved heterogeneity and our use of longitudinal data represent a significant advance over prior research in this area and take us one step closer toward the goal of establishing the nature of this relationship.

With these cautions in mind, the results of our examination also suggest several promising avenues for future research. First, future quantitative studies could follow up on the insights we extracted from our interviews with active offenders. The accounts provided by these offenders point to several mediating variables that may link anticipated early death to crime and that could be explored in future research, including a present-time orientation, perceived salience of immediate benefits, a disregard for the future consequences of behavior, a low desire to exercise self-control, fearlessness, and nihilistic attitudes that may result from the anticipation of early death. Two additional mechanisms that may link anticipated early death to crime, and that were implicit in the offender interviews, include: 1) the development of an "unpredictability schema"—a pervasive belief that the world is a chaotic place—(see Ross and Hill, 2002) and 2) a lack of investment in conventional pursuits, namely, those associated with delayed benefits, such as school or legitimate work.

Second, future research efforts should address the origins of anticipated early death. Likely contributing factors include extensive exposure to community violence (Bell and Jenkins, 1993; Garbarino et al., 1992; Hoffman, 2004; Lorion and Saltzman, 1993) and residence in areas that suffer a high mortality rate (Wilson and Daly, 1997). According to Anderson (1999: 135), ". . .some young people bereft of hope for the future have made their peace with death. . . . The high death rate among their peers keeps many from expecting to live beyond the age twenty-five."

Wilson and Daly's (1997) aggregate-level study of Chicago communities found a strong negative correlation (–.88) between average male life expectancy and the neighborhood homicide rate, even after removing the effects of homicide mortality on life expectancy. Based on these findings, they suggest that "people behave as if they have adjusted their rates of future discounting and risk acceptance thresholds in relation to local life expectancy" (Wilson and Daly, 1997: 1,273). However, the authors did not measure the perceived chances of early death, or future discounting, directly. It may also be the case that certain types of mortality, such as the violent death of a close friend or family member, may have an especially strong impact on the life span estimates of individuals.

An understanding of the origins of anticipated early death may ultimately suggest ways to foster young peoples' optimism in the future and, hence, reduce criminal involvement. Existing theory and research highlights the importance of safe and stable environments for young people (Bell and Jenkins, 1993; Hill, Ross, and Low, 1997; Ross and Hill, 2002), but future research in this area could lead to the development of interventions designed to foster resilience and hope among those who have already faced considerable instability and unpredictability in their lives.

At the same time, future research in this area may help to illuminate some of the social dynamics that work against behavior or attitudinal change. For example, Wilson and Daly (1997) raise the possibility of an aggregate-level feedback loop operating in disadvantaged communities, in which low life expectancy contributes to future discounting and increased homicidal violence, which further lowers life expectancy. Although not specified by existing analytical models, it is not difficult to imagine a similar feedback or amplification loop operating at the level of individuals. For example, implicit in our offender interviews is the possibility that, although the anticipation of early death and a "sense of futurelessness" may promote criminal activity, criminal activity and its associated dangers may only serve to reinforce initial low expectations about the future. Although the empirical exploration of such possibilities may prove to be challenging, they warrant attention in future theoretical and empirical research.

Third, the phenomenon of anticipated early death has implications for criminological theory. Like previous studies in this area, we found the rational choice framework to be a useful guide, and our findings (especially the results of our in-depth interviews) lend support to a key assumption made by rational choice theorists in this area, namely, that the delay of present gratification for future rewards will make "no sense" to individuals "without a long, stable future to look forward to" (Caldwell, Wiebe, and Cleveland, 2006: 600; also see Gardner, 1993; Hill, Ross, and Low, 1997; Wilson and Daly, 1997). Still, one might wonder about the possibility of alternative adaptations to anticipated early death. As suggested by an anonymous reviewer, might some young people respond with noncriminal adaptations, such as increased religiosity, or with determined efforts to improve their future prospects? These compelling questions deserve attention in future research.

Our findings also seem to have implications for self-control and social bonding theories of crime and delinquency. Although self-control theorists typically focus on the *ability* of individuals to delay immediate gratification (Gottfredson and Hirschi, 1990), research conducted by Tittle, Ward, and Grasmick (2004) indicates that the individual's *desire* to engage in self-restraint also plays an important role in self-regulation. As suggested by our qualitative findings, the offenders we interviewed expressed little desire to restrain themselves and delay immediate gratification because, in their words, there "might not be a tomorrow." Presumably, this attitude also discourages investment in the types of conventional, future-oriented activities that normally serve to inhibit criminal involvement, such as education or legitimate employment (Laub and Sampson, 2003; Sampson and Laub, 1993). In short, the desire to exercise self-restraint, as well as the desire to invest time and energy in conventional pursuits, may be contingent to some degree on the individual's belief in a stable future.

Our findings may also be of interest to neutralization theorists. According to the offenders we interviewed, the acceptance of early death (or its possibility) allowed them to neutralize the fear normally associated with risky criminal pursuits. Their acceptance of death, it seems, also allowed them to neutralize other reasons for avoiding crime, including the possibility of doing harm to themselves or others. In the eyes of offenders, the prospect of a short life seems to justify a disregard for negative consequences. Thus, the anticipation of early death may serve as a potent rationalization that, like other neutralizations, facilitates criminal involvement (see Maruna and Copes, 2005).

In this sense, there appears to be some overlap between our offender accounts and the "errors" of criminal thinking identified by Walters (1990; also see Walters and White, 1990), including "mollification" (rationalization) and "cutoff" (the attempt to "shut out" the negative consequences of

one's actions). Perhaps extensive exposure to community violence, and resulting perceptions of future uncertainty, encourage the development of these cognitive strategies. This is another area that could become the focus of future research.

Finally, work in this area has implications for deterrence theory and for the control of youth crime and violence. Specifically, research on risk and future uncertainty highlights the potential limitations of crime-control strategies that seek only to increase the future costs of criminal behavior (e.g., an increase in criminal penalties). Such efforts may have little impact on young people who anticipate a short life and who therefore discount the future (Anderson, 1994; Hill, Ross, and Low, 1997). In sum, the anticipation of early death may help to explain the fearless nature of some offenders in the face of crime's potential costs, including legal consequences and long-term disadvantage but also immediate physical danger.

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