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# Crime and the Life-Course, Prevention, Experiments, and Truth Seeking: Joan McCord's Pioneering Contributions to Criminology

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## Abstract

A life-span developmental approach describes Joan McCord's career and highlights her pioneering contributions to criminology and, more broadly, to understanding human development. The main focus of this article is on her exceptional scientific contributions through the assessment of the Cambridge-Somerville Youth Study experimental preventive intervention. We highlight her efforts to understand how a delinquency prevention intervention caused iatrogenic effects and the lessons she drew for evaluation research. Important contributions to key issues in developmental

criminology are summarized, such as the different roles of mothers, fathers, and neighborhoods in the development of delinquency as well as the importance of differentiating discipline from punishment. We describe how Dr. McCord relied on philosophy, how she tackled oppositions between theory-driven and data-driven research in criminology, and how she helped young investigators learn how to learn, and we end by highlighting her contributions to the organization and development of criminology in the United States and around the world.

### A SINGULAR SCIENTIFIC CAREER

Joan McCord (née Fish) (**Figure 1**) was born in New York City on August 4, 1930. She died at her home outside of Philadelphia on February 24, 2004. In a long and fulfilling career, Joan McCord made many significant and wide-ranging contributions to criminology (e.g., understanding of psychopathy, promoting the utility of experiments in evaluating social programs, preventing delinquency, and distinguishing the role of family in crime causation), many of which continue to shape the field today. She influenced the three authors of this article in different ways. For Tremblay, Joan helped him develop and evaluate a preventive intervention that could deliver on



**Figure 1**  
Joan McCord.

its aim of preventing children from embarking on a life of crime. For Welsh, Joan's unwavering commitment to prevention science helped forge the path for him becoming the next director of the Cambridge-Somerville Youth Study and carrying out the 70-year follow-up. For Sayre-McCord, Joan's oldest son, the influence was (predictably) even more life-altering while also providing a unique window into Joan's research acumen and accomplishments and ultimately shaping a career in her other beloved discipline: philosophy.

Joan McCord has long been recognized as having made some of the most important intellectual contributions to the field of criminology during the last half of the twentieth century. Her determination to thoroughly assess and explain the long-term impacts of the Cambridge-Somerville Youth Study (CSYS), one of the most innovative social science experiments of the twentieth century, was without a doubt one of the key contributions of criminology to understanding human development. Her work on the CSYS had a rapid impact on the planning of other major experimental and longitudinal studies. Moreover, many of those who worked with Joan McCord would say that her career was itself an exceptionally remarkable achievement.

First, she started to publish scientific papers and books that had major impacts 15 years before she received her PhD. During these years of groundbreaking scholarly work, she gave birth to two sons, became a single parent, and worked as an elementary school teacher (McCord 2002b). Second, the scope of her intellectual interests remains a model in a discipline that still has difficulty integrating other disciplinary perspectives. For example, Joan McCord's first scientific publication in the early 1950s, with her husband William McCord, was on the residential treatment of juvenile delinquents and included references to medical treatment, education, and philosophy (McCord & McCord 1953). Throughout her career, Joan McCord practiced and advocated the importance of integrating wide interdisciplinary perspectives (McCord 2002b). Third, she had an unflinching conviction that randomized controlled trials were essential to identifying effective services, and she courageously did all she could to widely promote this idea (McCord 1992a,b). Fourth, she had a rare ability to communicate her enthusiasm and energy for work requiring the collective efforts of highly skilled individuals, such as randomized controlled trials, interdisciplinary work, and longitudinal studies. Fifth, over the last three decades of her life, Joan McCord was invited to participate in most of the important national and international committees dealing with delinquency in the United States and around the world. These invitations were prompted by her exceptionally broad expertise in criminology and related fields and also by the enjoyment she found and gave to others during spirited intellectual discussions. Sixth, she was the first woman to become President of the American Society of Criminology (see McCord 1990). Finally, her lifetime contributions to criminology, and more specifically to experimental criminology, can be measured by the fact that within one year of her death, an annual prize in her name was created by the Academy of Experimental Criminology.

## **A REMARKABLE EARLY START: ORIGINS AND PREVENTION OF PSYCHOPATHY**

Within four years of their graduation from college (Stanford), Joan McCord and William McCord published a classic book on psychopathy and had their first child. The book, *Psychopathy and Delinquency* (McCord & McCord 1956; also published in an abridged version: McCord & McCord 1964), was, in fact, the published version of the PhD dissertation in social science that William McCord presented at Harvard University on April 1, 1955. The joint authorship of the book version of the dissertation attests to the fact that Joan and William worked together as a team and that Joan had major input into her husband's work. In an autobiographical essay shortly before her death (McCord 2002b), Joan mentions that at the end of college they had decided that she

would work while William would be the first to do his PhD and that he would then support her for her PhD.

The 1956 book on psychopathy (McCord & McCord 1956, 1964) covered the history of the psychopathy concept and had an extensive review of biological, psychological, and sociological theories of the causes of psychopathy, with important sections on diagnosis and treatment of adult psychopaths, which included psychoanalysis, drug treatment, group therapy, hypnosis, and lobotomy. However, the originality of the book was in how it dealt with the treatment and prevention of psychopathy during adolescence and childhood. It summarized most of the work that had been done with deviant children in the past decades and essentially concluded that milieu therapy (a term used for nonpunitive residential treatment) was possibly the best way to help these unfortunate children.

The book highlighted the work of many pioneers of milieu therapy, such as Aichhorn (1935), Redl & Wineman (1954), and Bettelheim (1950). However, in a chapter titled *Milieu Therapy: An Experiment*, the McCords described the exceptional comparative assessments they had done, starting in 1953, of two residential schools with clearly different approaches to education. The first, Wiltwyck, which had been chosen because Joan's aunt introduced them to the head of the school, Ernst Papanek, who had trained under Freud (McCord 2002b; McCord & McCord 1956, p. 124), focused on understanding and cooperation rather than punishment and scolding (Papanek 1953), whereas the second, New England school (a pseudonym), used harsh discipline and hard work (McCord & McCord 1953).

The McCord team selected 35 boys from each school to compare their personalities, values, and networks of friendships to identify the impact of the program on the types of friendships the boys had established. They then compared the boys who recently arrived in the schools to those who had been there for a longer period. The differences between the two groups led to the conclusion that the schools had impacts on the boys and that these impacts differed between the two schools. For example, the children who had been at Wiltwyck for a longer period appeared to be more attached to the staff and chose more constructive student leaders. Joan and William concluded that they "felt justified in tentatively attributing the changes achieved at Wiltwyck school to the nature of the treatment rather than to extraneous factors such as incarceration itself" (McCord & McCord 1964, p. 141). Joan pointed out in one of her publications that the famous boxer, Floyd Patterson, was a graduate of Wiltwyck and that he regularly came back to teach boxing (McCord 2002b).

In 1954 and 1955, they conducted two other series of assessments on the Wiltwyck boys. The first was a cross-sectional study of the 107 boys (mostly African Americans) who were in the school, comparing the differences on numerous assessments as they related to the amount of time they had been in the school. The second was a longitudinal study, following 25 boys over a one-year period to prospectively assess changes that could be attributed to the school's milieu therapy program. The 25 boys were classified as psychopathic personalities ( $n = 6$ ), neurotic ( $n = 5$ ), and borderline psychotic ( $n = 1$ ) and as having behavior disorders ( $n = 13$ ) (McCord & McCord 1956). Using numerous tools to assess change over a one-year period, the McCord team first concluded that "in most areas psychopaths and behavior disorders reacted favorably to milieu therapy. Yet our tests uncovered no change in reaction to frustration or in conscious self-perception" (McCord & McCord 1956, p. 165). They also added that "with some degree of confidence, therefore, we can conclude that milieu therapy is best adapted to the aggressive child. The treatment decreases aggression, strengthens the conscience, and helps the children's relation to authority" (McCord & McCord 1956, p. 165).

In the last paragraph of the chapter on this Wiltwyck assessment, the McCords discussed to what extent the changes observed within the Wiltwyck environment can be permanent. They wrote that "it is axiomatic in modern social science that the situation helps determine behavior and

personality,” and added the following footnote: “It is planned that the 107 boys investigated in the present study will be traced during the next 10 years, as they return to their original environments” (McCord & McCord 1956, p. 171). Eight years later, in the 1964 version of the book, they once again reminded the reader of the importance of “a systematic follow-up study of the boys as they enter adulthood” (McCord & McCord 1964, p. 165).

This early plan to do a long-term follow-up of the Wiltwyck boys clearly shows that they understood the importance of long-term follow-ups of treatment effects. The McCords probably could not anticipate that Joan would indeed follow treated children as they enter adulthood and beyond. Furthermore, the McCords were probably far from imagining that the boys she would follow well into their adult lives would not be the Wiltwyck boys.

One explanation for the McCord couple’s remarkable early start, besides the assortative mating of two very bright and hardworking young persons, is probably that they were clearly choosing to be at the frontier of science. William McCord had chosen to do his graduate work with the Gluecks at Harvard, the leaders of pioneering work on juvenile delinquency at the time. Similarly, once her husband finished his PhD, Joan McCord left elementary school teaching and chose to work as a research assistant in an environment that included leaders in child development research at Harvard, such as Harry Levin, John Whiting, and Eleanor Maccoby. At the end of her life Joan wrote that, when she attended college at Stanford, they were encouraged to meet with successful people to decide what they wanted to do in life, and both had chosen to become successful academics (McCord 2002b).

## **THE 1956 FOLLOW-UP OF THE CAMBRIDGE-SOMERVILLE YOUTH STUDY**

Joan McCord’s main scientific contribution to criminology, and to the science of human development, was clearly the long-term assessment of the Cambridge-Somerville Youth Study. Officially started in June 1939, the CSYS was created as a delinquency prevention randomized controlled trial. Six-hundred-fifty underprivileged boys of average and difficult temperament (later reduced to 506) ages 5 to 13 years (median = 10.5) from Cambridge and Somerville, Massachusetts, were placed in matched pairs and one member of each pair was randomly assigned to the treatment group. Referred to as directed friendship, the preventive intervention involved individual counseling through a range of activities and home visits with the families. Counselors talked to the boys, took them on trips and to recreational facilities, tutored them in reading and arithmetic, encouraged them to participate in the YMCA and in summer camps, played games with them at the project’s center, and encouraged them to attend church. The program lasted a mean average of 5.5 years. Boys in the control condition received no special services.

The study was developed and directed by Richard Clarke Cabot (1868–1939), a renowned professor of clinical medicine and social ethics at Harvard University. The study encapsulated Cabot’s life work and his overarching desire to combine science with social ethics (O’Brien 1985). Cabot was also influenced by the high recidivism rates of juvenile reformatories of the day (Glueck & Glueck 1930), and he set out to intervene in the lives of at-risk boys—predelinquents as he called them—before contact with the formal justice system (Cabot 1930). Other influences, most notably the work of William Healy and Augusta Bronner (1926; see also Healy 1915) and Sheldon and Eleanor Glueck (Glueck & Glueck 1930, 1934), also played an important role in shaping Cabot’s vision of the study (Welsh et al. 2017, 2018).

Although today the CSYS is recognized as the first randomized controlled experiment in criminology (Weisburd & Petrosino 2004), as well as one of the earliest experiments of a social

program (Forsetlund et al. 2007), it is largely owing to the pioneering research of Joan McCord that the study has become so prominent in the field of criminology.

In 1956, William and Joan McCord published their first book (described above), their first son was born, and they received funding from the Cabot Foundation to carry out the ten-year postintervention follow-up of the CSYS (1939–1945) (McCord & McCord 1959a,b).<sup>1</sup> This would prove to be a major undertaking, with the authors tracing all 506 participants (now in their twenties) and Joan also overseeing the coding of the detailed case histories of the treatment group boys and their families (see McCord 1984).

The coding of the case histories was equally detailed, covering information in four areas: (a) family's socioeconomic and cultural milieu; (b) parental behavior and relationship, with a focus on aggressiveness, conflicts, drinking, and affection for one another; (c) parental interaction with the child, with a focus on disciplinary techniques, expectations for performance, and affect toward one another; and (d) behavior and emotional state of the child, with a focus on aggressiveness, relations with siblings, self-confidence, and dependency. Information was also coded on the services provided by the program, which included frequency of visits by the counselors with the boys and their families as well as the focus of interactions between the counselors and the boys (McCord 1984).

Following multiple comparisons of the treatment and control groups using administrative records, it was found that the program had no measurable effect on official offending. Rather than be discouraged by this result, Joan and William McCord sought comfort in the scientific knowledge afforded by this unique study (McCord & McCord 1959a, p. 96):

Yet even in its failure, the program must be regarded as a magnificent experiment, for its provision of a control group and its careful attention to research have produced a fund of information invaluable to future studies of the causation and prevention of crime.

The 1956 evaluation led to two books. The first, *Origins of Crime: A New Evaluation of the Cambridge-Somerville Youth Study* (McCord & McCord 1959b), was a detailed investigation of the lives of the study participants with respect to offending. Informed by the aforementioned discouraging finding that the program was largely ineffective, the McCords noted the true focus of their book early on: “In fact, the causes of crime came to be our major focus of attention” (McCord & McCord 1959b, p. 9). Using the treatment group, the book marks the first study to investigate offending in a developmental manner.<sup>2</sup> Detailed analyses produced a catalog of important findings on individual, family, and neighborhood influences on crime. Equally important for the advancement of scientific knowledge on the development of offending over the life-course, the McCords drew attention to the need to understand interactive effects. Their words are instructive to this day: “Clearly, one cannot understand the origins of criminality by examining one factor alone; rather, one must understand the complex interaction of such determinants as the parents as individuals, the parents in relation to their child, and the family as it combines with neighborhood influences” (McCord & McCord 1959b, p. 172).

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<sup>1</sup>The first formative evaluation took place in 1948 (Powers & Witmer 1951). As reported by McCord & McCord (1959b), an earlier evaluation of effectiveness was attempted prior to the end of the program in 1945.

<sup>2</sup>The McCords elaborated on this point: “Rather than reconstruct causes retrospectively, after men have become criminal, we have had access to a vast fund of information concerning a relatively large number of individuals, gathered before the onset of criminality. From this data we have been able to isolate some of the more crucial sources of crime” (McCord & McCord 1959b, p. vii).



The second book, *Origins of Alcoholism*, recounted a highly innovative study on said origins (McCord & McCord 1960). As they did with the previous book on offending, the McCord team used the CSYS longitudinal data from childhood to adulthood to identify the differences during childhood as well as adulthood between those who became alcoholics and those who did not. Not surprisingly, they also compared the alcoholics who were criminals to those that were only alcoholics and those that were only criminals. As they had done with psychopathy (McCord & McCord 1956), they extensively reviewed the literature on alcoholism from numerous perspectives, including physiology, psychology, psychoanalysis, and sociology. Their analyses indicated that 10% of the boys had become alcoholics and that there were no significant differences in the proportion of alcoholics between the treated and untreated group. Thus, the preventive intervention did not have a positive or negative impact on alcoholism. Of the total sample, 88 were classified as criminal and nonalcoholic, 21 as alcoholic noncriminal, and 30 as both alcoholic and criminal.

An important part of the book presented a comparison of the criminal alcoholics, the non-criminal alcoholics, and the criminal nonalcoholics with regard to their childhood characteristics. The aim was to assess the extent to which alcoholics and criminals had similar or different early backgrounds.

From a sociological perspective, their conclusion was that the criminals were more often from lower-class and disorganized backgrounds, whereas alcoholics were more likely than criminals to be from middle-class backgrounds. Taking a psychodynamic perspective, they concluded that the three groups (criminal, alcoholic, criminal and alcoholic) had backgrounds conducive to general anxiety, that extreme emotional coldness was the family characteristic typical of the nonalcoholic criminals, and that dependency conflict was the family environment characteristic of the alcoholics (criminal and noncriminal).

The McCords' general conclusion was that the predisposition to alcoholism is established rather early in life through the person's intimate experiences within the family (McCord & McCord 1960). Not surprisingly, they were quick to admit that this theory was "necessarily a speculative one" (McCord & McCord 1960, p. 164).

Throughout her career, Joan turned to the CSYS to study the development of alcoholism. For example, in the introduction of an article in the *Journal of Studies on Alcohol* (McCord 1988, McCord 2007b), she highlighted the fact that past studies on alcoholism took mainly a psychosocial approach to the origins of alcoholism (which was the case in the 1960 book) and that recent work suggested important genetic causes to alcoholism. She argued that although these genetic factors were likely, it was important to identify the environmental contributions and that this should be done prospectively with longitudinal studies. With this reanalysis of the CSYS, she identified alcoholics that had two different developmental trajectories from childhood to adulthood, and both of these developmental trajectories were related to maternal characteristics.

The first developmental trajectory involved boys who had alcoholic fathers and became alcoholics. From the available data, the wife of these alcoholic fathers appeared to have high esteem for their husband. Joan hypothesized that these sons of alcoholic fathers "may have been taught that their fathers' behavior was acceptable—or, at least, forgivable. They may have accepted drinking as part of the masculine role" (McCord 2007b, p. 225). The second developmental trajectory involved boys whose fathers were not alcoholic but whose mothers lacked control. Because the CSYS did not provide any genetic information, Joan wisely concluded (McCord 2007b, p. 225):

The models built on paternal alcoholism, mother's approval of her husband, and maternal control clearly provide only a partial explanation for the development of alcoholism. Other variables, both biological and social, could undoubtedly improve both specificity and sensitivity of the predictions.

It seems reasonable to suggest that better measures of genetic loading might improve predictions as might the addition of such social variables as approval of heavy drinking.

## THE STRESS TEST: 1957–1975

In the fall of 1957, William McCord was teaching at Harvard and Joan McCord was awarded a Josiah Royce Fellowship to study philosophy, also at Harvard. She described that position as “a wonderful time and place to be learning” (McCord 2002b, p. 100). However, William accepted a position as Assistant Dean of Humanities and Sciences at Stanford; Joan followed with their son and became a Research Associate at Stanford. The McCord couple built a house on Stanford property near campus, and a second son was born soon thereafter. In 1961, following a year in Tours, France, with a group of students, Joan received a Stanford Wilson Fellowship to study philosophy at Stanford.

Unfortunately, William started to have problems with alcohol. In her autobiography, Joan wrote (McCord 2002b, p. 101):

Bud and I had written extensively about alcoholism, in part because both of his parents had been alcoholics. We had noted, in *Origins of Alcoholism* that our work would be justified if it contributed to prevention of alcoholism. And both of us believed for a while that our work had indeed saved him.

Directly related to the marital problems that Joan was having and that led to a divorce, the Stanford philosophy department withdrew her financial support. She later wrote (McCord 2002b, p. 101):

I sometimes wonder whether women today realize how different it is both to have support from other women and to have a legal system that allows for their independence (I grew up at a time when women could be fired from teaching positions if they became pregnant. . .).

She eventually obtained a three-year fellowship from the National Institute of Mental Health to finish graduate work and decided to do a PhD in sociology instead of philosophy, both because of philosophy’s earlier treatment of her and because she already had an impressive research record in the social sciences. Joan received her PhD in sociology from Stanford in 1968 for her research on the influence of academic status on males and females and then took a position at Drexel University in Philadelphia, where she could teach both sociology and philosophy: “For a few years, I taught four courses per quarter and barely kept my head above water. Even so, my schedule was flexible enough to allow me to cheer my sons through baseball and soccer seasons” (McCord 2002b, p. 103). After many grant proposals, Joan finally obtained a three-year grant for a long-term follow-up on the CSYS boys.

## THE 1975–1979 EVALUATION OF THE CAMBRIDGE-SOMERVILLE YOUTH STUDY

This follow-up study of the CSYS was carried out in two waves (1975–76 and up to 1979). Joan was now the study director<sup>3</sup> and principal investigator of the CSYS follow-up, and she

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<sup>3</sup>Joan served as the study’s codirector (with William McCord) from 1956 to 1959 and director from 1975 to 2004. Although there was no official director between 1960 and 1974, the study was in Joan’s care during this period of time.



assembled a top-notch team of researchers and support staff at Drexel University. An equally capable, not to mention prominent, group of scholars, including Michael Wadsworth, Jack Block, Jerry Bachman, and Glen Elder, participated in advisory conferences that Joan set up to discuss the project (McCord 2002b).

Between 1975 and 1976, records were located for 94.9% or 480 of the 506 participants (mean age: 45 years; of whom 48 had died). Additionally, interviews were conducted with or questionnaires were completed by 347 of the participants (McCord 1978). Continued data collection up to 1979 eventually located records for 97.6% or 494 participants (mean age: 47 years; of whom 10 more had died) (McCord 1981). Aside from the results, which are discussed below, three key features of a methodological or administrative nature stand out from this follow-up. First, the thoroughness in tracing participants 20 years later is rather remarkable and owes a great deal to Joan's doggedness in research and commitment to science. It was also helpful that, as Joan acknowledged, 78% of the participants still resided in Massachusetts (McCord 1978). Second, the outcome measures to gauge program impact (e.g., health, mental health, employment, and offending) were comprehensive and crucial for this stage in the participants' life-course. Third, the record keeping was meticulous, a carryover from Joan's work on the 1956 follow-up (see McCord 1984). Although this has important implications for the ongoing 70-year follow-up of the CSYS (see Welsh & Zimmerman 2015), it speaks to the study's high level of descriptive validity.

As is well known in the annals of criminology, this follow-up found iatrogenic effects of the program. On the basis of the first wave of data ( $n = 480$ ), comparisons between the treatment and control groups indicated that the treatment group had not fared better on any measured outcome and actually fared worse on seven outcomes. The treatment group men were significantly more likely to (a) commit more than one crime (among those who committed at least one crime); (b) suffer symptoms of alcoholism; (c) manifest signs of mental illness; (d) die at a younger age; (e) suffer from at least one stress-related disorder, especially high blood pressure or heart trouble; (f) have occupations with lower prestige; and (g) report their work as unsatisfying (McCord 1978). It is important to note that the data were not analyzed using matched pairs; instead, the findings are based on an aggregate analysis of treatment group versus control group.

Several years later, in a report for the National Academy of Sciences, McCord (1981) carried out a matched-pairs analysis with the full sample ( $n = 494$ ). She grouped participants by whether or not they experienced any undesirable outcomes, which included FBI index crimes (all felonies), treated alcoholism, serious mental illness, and early death (defined as death prior to age 35). The results indicated that 42% of the treatment group experienced undesirable outcomes compared to 32% of controls, a significant difference (McCord 1981).

McCord (1978, 1981) proposed and tested several hypotheses for the iatrogenic effects. One was the value conflict hypothesis, which held that the program might have created a conflict between the middle-class values of the counselors and the values in the treatment boys' working-class neighborhoods. Another was the dependency hypothesis, which held that the treatment group boys might have become dependent on the program, resulting in maladjustment when they no longer had access to program resources. For example, the boys may have become attached to the positive adult relationships and suffered when these relationships ended at program termination. A third hypothesis focused on the possibility of a labeling effect: "through receiving the services of a 'welfare project,' those in the treatment program may have justified the help they received by perceiving themselves as needing help" (McCord 1981, p. 289). A fourth was the failed expectations hypothesis, which held that participation in the program "generated such high expectations that subsequent experiences tended to produce symptoms of deprivation" (McCord 1978, p. 289). By creating unrealistic expectations regarding life possibilities, the program may have fostered a sense of disillusionment and diminished satisfaction with everyday life events for the treatment group boys.

Of these hypotheses, McCord found empirical support only for failed expectations. Specifically, McCord (1981) found that a higher proportion of treatment group men had been separated or divorced compared to their control counterparts and that among current marriages fewer treatment group men reported warmth toward their spouses. The treatment group was also significantly less likely to report being satisfied with work and with life more generally. Ultimately, McCord (1981, p. 405) concluded that the program “seems to have raised the expectations for its clients without also providing the means of increasing satisfactions. The resulting disillusionment seems to have contributed to the probability of having an undesirable outcome.”

In later years, McCord (2003; see also Dishion et al. 1999) proposed a peer deviancy hypothesis, observing that peer contagion among treatment group youth who had attended summer camps appeared to explain much of the iatrogenic effects. According to McCord (2003), these camps likely allowed for a great deal of unstructured socializing, representing an ideal environment for deviancy training to take place. Reanalyzing the 30-year follow-up data, McCord (2003) found that for boys who attended summer camp only once ( $n = 59$ ), the odds ratio (OR) predicting undesirable outcomes was 1.33, which was significantly higher than the OR of 1.12 for treatment group boys who did not attend summer camp. For boys who attended camp more than once ( $n = 66$ ), the OR for undesirable outcomes was 10.0, meaning that participants were ten times as likely to experience undesirable outcomes as their matched mates. McCord (2002a, p. 235) concluded: “I strongly suspect that the boys from the Youth Study tended to bond together, encouraging one another’s deviant values.” McCord’s construct theory of motivation—which holds that “people construct their motives through the way they perceive choices and that these perceptions are influenced by perceived actions of their associates” (McCord 2003, p. 22)—provided a theoretical explanation for why deviancy training takes place among high-risk youth in unsupervised settings (McCord 2004).

Several implications of a personal nature and for criminological research and policy warrant attention. The first has to do with some rather foul and unprofessional behavior directed at Joan upon the publication of her 1978 article. As she later explained (McCord 2003, p. 27):

When results of the Cambridge-Somerville study were first published (and they were published only on the condition that a critical article would be coupled with its publication), I received threatening phone calls and notes. When I gave talks about these results, in many audiences, people shouted ugly names at me.

Not only was this behavior uncalled for, there is no indication that these findings resulted in any negative ramifications for delinquency prevention or social programs in general or even for the funding of such programs in the future.

These findings became important to the understanding that good intentions do not guarantee desirable effects (Dishion et al. 1999). Whether it is in the context of assessing the effectiveness of preventive interventions or as part of the larger debate on prevention versus punishment, we must be mindful that all social programs have the potential to cause harm (Welsh & Rocque 2014). In Joan’s words, “Unless social programs are evaluated for potential harm as well as benefit, safety as well as efficacy, the choice of which social programs to use will remain a dangerous guess” (McCord 2003, p. 17).

Undergirding this view is the argument that high-quality designs are needed to be able to identify any harmful (or beneficial) effects. The keys here are the safety of those taking part in social programs and the knowledge that experiments can be shut down if the treatment condition is fairing worse than the control condition. In advancing this argument, Joan did not shy away from its implications for greater experimentation: “Recognizing that programs can have harmful

effects may be critical to acceptance of experimental designs for evaluating social interventions” (McCord 2003, p. 29).

It should be noted that one younger scholar and aspiring prevention scientist was taking careful note of these developments, and Joan McCord would come to play a rather profound role in the Montreal Longitudinal-Experimental Study, which was “designed to prevent the iatrogenic effects of interventions she had identified” (Tremblay & Farrington 2004, p. 6). It was also the beginning of a great research collaboration and friendship.

## THE MONTREAL LONGITUDINAL-EXPERIMENTAL STUDY

The Montreal Longitudinal-Experimental Study started in 1984 as a regular longitudinal study with 1,061 kindergarten boys from 53 schools in low socioeconomic environments. When the children entered second grade, a randomized experiment was added to test a multimodal preventive intervention that combined children’s social skills training, parent training, and teacher training. The most disruptive (aggressive/hyperactive) boys in kindergarten were randomly allocated to treatment and control conditions. Richard Tremblay contacted Joan McCord to ask whether she would be interested in advising the research team. Joan accepted with her usual enthusiasm and became a regular visitor to Montreal, where she helped convince skeptics and motivate staff. She was clearly convinced that the prevention program could have a positive impact because it targeted the three most important aspects of the children’s lives: parents, peers, and the school environment. However, she was still more convinced that the experimental design was key to advancing knowledge.

The treatment group received training designed to foster social skills and self-control. Coaching, peer modeling, role playing, and reinforcement contingencies were used in small group sessions at school on such topics as how to help, what to do when you are angry, and how to react to teasing. To prevent deviancy training, the social skills and self-control small group sessions included only two disruptive boys with four highly prosocial boys. Also, the disruptive boys’ parents were trained at home using parent management techniques developed by Gerald Patterson (1982). Parents were taught how to provide positive reinforcement for desirable behavior, use nonpunitive and consistent discipline practices, and develop family crisis management techniques. Similar training was given to teachers. The program lasted for 20 months over the course of the first two full school years (Tremblay et al. 1992).

By age 12 (3 years after intervention), according to self-reports, the treatment group boys committed significantly less burglary and theft, were significantly less likely to get drunk, and were significantly less likely to be involved in fights than their control counterparts. Also, the treatment group boys had significantly higher school achievement (Tremblay et al. 1992). At this stage, Joan worked on the data analysis with the Montreal research team, resulting in an article that analyzed the age-12 data (McCord et al. 1994).

Further follow-ups showed that at every age from 10 to 15, the treatment boys had significantly lower self-reported delinquency scores than the control boys. Intriguingly, the differences in delinquency between treatment and control boys increased as the follow-up progressed. However, the treatment boys were only slightly less likely to have a juvenile court record up to age 15 (7% compared with 9% of the controls). The treatment boys were also less likely to be gang members, get drunk, and take drugs, but they were not significantly different from the controls on having sexual intercourse by age 15 (Castellanos-Ryan et al. 2013; Tremblay et al. 1995, 1996). Unfortunately, Joan’s death prevented her from seeing that by age 24, the boys in the intervention group had less involvement in criminal activity, as measured with official records (Boisjoli et al. 2007). In the latest follow-up, when the study participants were age 28, Vitaro et al. (2013) found

that the treatment group, compared to their controls, continued to have significantly lower rates of property violence, with rates of personal violence showing no difference between the two groups.

## **ROLE OF THE FAMILY IN THE DEVELOPMENT OF DEVIANT BEHAVIOR: OF FATHERS, MOTHERS, AND NEIGHBORHOODS**

In their first publication in 1953, William and Joan McCord focused on the residential treatment of juvenile delinquents. However, they introduced the paper by writing that in their classic book *Unraveling Juvenile Delinquency*, Sheldon and Eleanor Glueck (1950) had shown that “the family milieu emerges as the decisive factor in antisocial behavior” (McCord & McCord 1953, p. 442).

Joan McCord spent the following half-century working with the Cambridge-Somerville Youth Study and other studies to clarify the role of the family in the development and prevention of antisocial behavior as well as in the role families play in other problems, such as alcoholism, and in children’s education in general.

Joan specifically investigated the numerous family factors that may influence the relationship between father and son behavior problems, such as criminality and alcoholism. She reached the tentative conclusion that transmission of offending, as well as alcoholism, from fathers to their sons was largely mediated by parenting practices and other family risk factors rather than direct social learning of deviant behavior, biological inheritance, or other causal mechanisms: “Paternal deviance appeared to have an indirect, rather than direct, effect on criminality” (McCord 1986, p. 355).

In a 1979 paper published in the *Journal of Personality and Social Psychology* (McCord 1979), Joan investigated the association between seven family variables (collected during childhood in the CSYS) and convictions for serious crimes (indexed by the FBI) 30 years after the end of the preventive intervention program. She showed that six of the seven family variables discriminated the boys who had been convicted from those who had not: parental supervision, maternal affection, parental conflict, parental aggression, maternal self-confidence, and paternal deviance. Based on discriminant function analyses, these six variables identified 80% of the men who were convicted for serious crimes during adulthood. The only family variable that was not associated with future criminal behavior was, surprisingly, father absence.

In this paper, Joan noted that the lack of association between father absence and serious criminal behavior was indeed a surprising result because there were (and still are today) many experts who consider parental separation as a cause of deviant behavior. She came back to this problem a few years later in a book chapter (McCord 1982). With data from the CSYS, she tested three mechanisms that could explain why some experts wrongly conclude that paternal absence (broken home) has a causal impact on criminal behavior during adulthood.

The first mechanism she focused on was exposure to conflict between parents. She argued that because parent separation generally reduces conflicts in the child’s environment, separation should prevent the association between parental conflicts and later criminality. As she did so often, she addressed this issue with a clever twist. She showed that children of parents who lived together in an atmosphere of conflict had higher criminal rates during adulthood than those who were reared by affectionate mothers in broken homes. She concluded that these results could “be interpreted as providing evidence that, by terminating conflict, paternal absence (under some conditions) may be beneficial” (McCord 1982, p. 81).

The second mechanism focused on the differences between parents who separate and parents who continue to live together. Joan used assessments of mother rejection and father deviance to compare children’s criminal rates between broken and intact homes. The analyses showed that

father absence did not lead to children's criminality during adulthood but tended to increase the association between maternal rejection of her child and his criminality.

The third mechanism focused on the supervision received by children of intact and broken homes. Results showed that the boys in intact homes were, as expected, more supervised than those in a broken home and that being less supervised increased the risk of criminality. On the basis of these results, Joan concluded (McCord 2007c, p. 82):

Some of the characteristics of parents seem to be both criminogenic and conducive to broken homes; attribution to broken homes of the resultant criminality produces an error important both for theory and for practice. . . on the basis of present information, it seems appropriate to suggest a focus upon quality rather than quantity of parenting.

It is important to note that the crucial difference between the analyses that Joan McCord did to reach her conclusions and the analyses that were done in most studies on broken homes of the day was that the latter did not have the quality and quantity of data on family environment. This was a direct result of Joan's coding of the CSYS counselors' reports.

Throughout her career, Joan McCord investigated the association between boys with problem behavior and their father's problem behavior. As we have seen above, she also systematically introduced the role of the mothers from the perspective of their positive and negative contributions to the child's development. Her work on the absent father highlighted the importance of mothers. This helped the field move away from the simplistic "like father, like son" hypothesis. Her analyses showed that mothers could make things better as well as make things worse. And this was done at a time when it became hard to point to a putative negative role of mothers because they were generally seen as victims (e.g., Caplan & Hall-McCorquodale 1985).

In her early work with the Montreal Longitudinal-Experimental Study, Joan played a key role in helping research assistants understand the complex role of mothers. One of the first striking results from that study in the mid-1980s was the association between maternal characteristics and the children's behavior problems. When these results were highlighted in a local newspaper article, there was a strong negative reaction by the research assistants who had interviewed the mothers and were themselves mothers coming back on the job market. Joan, the single mother of two boys, offered to meet the research assistants and was successful in helping them understand the key role of mothers and the importance of supporting girls with a history of problem behaviors before and after they became mothers. She also helped her male colleagues understand the importance of intergenerational preventive intervention by targeting girls at risk of behavior problems (Tremblay et al. 2018).

From the start of her career, Joan McCord focused on deviant behavior, but her passion was clearly understanding human behavior development in general. This can be clearly seen in a paper she wrote on the development of competence with the data from the CSYS (McCord 2007a). She investigated to what extent the boys who were successful on the job market (i.e., white-collar job), as well as those who were physically and mentally well-adjusted during adulthood, could be predicted from early childhood. Her results showed that teacher assessments (e.g., hyperactivity, aggression) at the start of the study, as well as family characteristics (e.g., maternal competence and family conflicts), were good predictors of both types of positive outcomes during adulthood. This led her to conclude the following: "The results of this study suggest that conditions of childhood socialization have long-range effects on social adjustment and achievement. They also suggest that some of the marks of success as well as of future trouble can be recognized in childhood" (McCord 2007a, p. 254). More recent studies have shown that this holds even when children are

assessed by kindergarten teachers (e.g., Vitaro et al. 2005), and that early interventions do have positive impacts on social adjustment and health that last well into adulthood (Boisjoli et al. 2007, Campbell et al. 2014, Heckman et al. 2013).

Not long before her untimely death, Joan concluded that “families contribute to criminality in at least three ways: by genetic transmission, through placement in physical and socioeconomic contexts, and by virtue of child-rearing practices” (McCord 2001, p. 223).

## **THE FEAST OF DISCIPLINE AND THE CRUMBS OF PUNISHMENT**

Joan McCord also had very clear ideas concerning the education of a human being. To a certain extent, these ideas guided her research on human development. The following quotation from a theoretical paper she wrote toward the end of her career gives a good idea of some of her rational pillars (McCord 2007f, p. 144):

Often, when parents and advisors discuss discipline, they refer only to punishment. Yet punishment is to discipline, I suggest, as crumbs are to a banquet. Punishments are tiny, largely undesirable, pieces of the delicious feast provided by well-prepared discipline. Discipline, which is far larger and more valuable than the crumbs of punishment, includes rules, norms, and values as well as external sanctions.

In the following pages, she elaborates on how parents can provide proper discipline. She suggests that effective discipline first involves teaching good habits early in life rather than having to correct bad habits. Thus, parents need to prioritize their values (what parents consider the good habits and bad habits) before the birth of the child. Hence, parents who teach habits that they value will not have to punish bad habits. If the child is not learning the habits that the parents value, then they need to revise their teaching techniques rather than punish the child: “In short, when enforcement has been properly negotiated, punishments are both unnecessary and undesirable” (McCord 2007f, p. 150).

In a 1991 paper, Joan addressed the impact of punishment using data from the CSYS and reviewed the available studies at the time (McCord 2007e). Her aim was to challenge the widely held view that individuals become violent because they learn from parents and other models that the use of violence is legitimate. But she was also challenging the idea that children learn to aggress others only through imitation of parents who use physical punishment.

Using the CSYS data, she showed that this narrow social learning theory did not hold because the children who were physically punished by affectionate parents were less at risk of becoming criminals than those who were physically punished by less affectionate parents. She extended her demonstration with data from a child abuse and neglect study (Widom 1989). The reanalysis of the data showed that children who were physically abused by a member of their family were indeed at high risk of violent criminal behavior during adulthood, but the children who were neglected without being abused were also at high risk of violent criminal behavior. Her specific conclusion went as follows: “continuity in violence among abusing families has been mistakenly attributed to transmission of norms of violence. . .one ought to search for a common cause, for something shared by neglect and abuse that might lead to violence” (McCord 2007e, p. 115). But Joan McCord, the rational philosopher and psychologist, as well as caring mother and elementary school teacher, had a more general conclusion for the education of children (McCord 2007e, pp 121–22):

I do suggest that children can be taught to follow reasonable rules and to be considerate—and that the probabilities for their learning these things are directly related to the use of reason in teaching



them and to the consideration they see in their surroundings. . . by using rewards and punishments to educate, adults establish self-interest as the legitimate grounds for choice.

Six years later, in a paper titled “On Discipline” (McCord 2007d), Joan reanalyzed the CSYS data on physical punishment. She highlighted the fact that maternal and paternal warmth reduced the likelihood of violent criminality. However, she found that physical punishment, even by warm parents, significantly increased the likelihood of serious adult criminality (crimes indexed by the FBI): “Enforcing obedience, however, ought not be confused with punishing disobedience. Corporal punishment may, in fact, make enforcement of socialized behavior far more difficult” (McCord 2007d, p. 143).

Finally, Joan extended the analysis of the families’ role in criminal behavior to the role of neighborhood factors. She found that neighborhoods tended to have an effect on the criminality of boys only when the fathers had a history of criminality. For treatment group boys with noncriminal fathers, the type of neighborhood was not significantly related to future criminality. But for sons of criminal fathers, 45% of criminal sons came from the worst neighborhoods compared to only 15% of noncriminal sons, a significant difference. Joan suggested that in better neighborhoods, protective factors likely insulate sons of criminal fathers from following in their fathers’ footsteps. These protective influences included family characteristics such as positive maternal traits (i.e., affection, self-confidence, supervision, and nonpunitive discipline). She concluded that the “effects of neighborhoods seem to be mediated by family socialization practices, but whether or not similar socialization practices have similar effects in different types of neighborhoods is not yet known” (McCord 1993b, p. 322).

## THE ROLE OF PHILOSOPHY

As an undergraduate at Stanford and as a graduate student at Harvard (with a Josiah Royce Fellowship) and then back at Stanford (on a Stanford Wilson Fellowship, when her husband took up a position at Stanford), Joan McCord pursued her love of philosophy. Her aim was to get a PhD in philosophy. Those plans shifted dramatically with the collapse of her marriage, when the faculty in the philosophy department told her that philosophy was not a profession for women and that they would not support her in seeking an academic position. This was crushing, of course, and an appalling reflection of the philosophy profession. Despite her serious disappointment, Joan never lost her love of philosophy. She continued to read actively in the field, amassing over the years an extraordinary collection of philosophy books. Moreover, her research was guided by intensive philosophical reflection concerning methodology and the nature of human action.

Joan’s deep interests in methodology led her to worry about the reliability of self-reports (for instance, when investigating the influence of parental discipline on children’s behavioral outcomes) and, more generally, about how questionnaires, tests, and exams that aim to measure one thing end up measuring something else, often in ways that reflect racial and gender biases. For several years, she worked on showing that exams designed for first responders were racially biased and also on designing new exams that avoided bias while testing more successfully for relevant skills. The results of this work were neither published nor used, unfortunately, because the relevant officials failed to give the necessary permissions. Similarly, reflection on questions of methodology led Joan, famously, to become a staunch advocate of carefully controlled experimental studies as a crucial part of measuring the impact of social interventions.

Equally important to Joan’s research was her early work in philosophy on action theory, and specifically her attempts to understand and then develop a theory concerning how people come to see certain considerations and not others as reasons to act as they do (McCord 1992c, 1997,

2000). Joan's work on this was initially inspired by Donald Davidson's (1963) work, which brought out brilliantly the difference between seeing behavior simply as something caused and seeing it as being an action performed by someone for a reason. This is a distinction that Joan believed was too often ignored in social science, with the result that social scientists spent too little time trying to understand action as opposed to behavior and, especially, too little time trying to understand when, why, and how various considerations (different ones, of course, for different people, at different times, in different cultures) are taken as reasons for and against doing certain things. She was convinced that we ignore this process at our peril (McCord 1992c).

Joan's views about the mechanisms that shape how people think about the reasons they have to act deeply influenced most aspects of her life: how she ran her sixth grade classroom in the 1950s (trying to get her students to see the opportunity to do math as a reason to participate in activities), how she raised her children (offering reasons to act in a given way, considering the reasons they saw as relevant, and often changing her mind as a result as well as eschewing punishment in favor of nonpunitive forms of discipline), and how, throughout her career, she sought the social phenomena. At no point did she ignore the significance of material conditions, social conditions, and individual drives and aversions. Yet she thought all of these, and more, had much of their impact on individual behavior and social trends thanks specifically to their contributions to what people come to see as their reasons to stand and fight or to flee for another day, to propose marriage or have children, to advocate for policies or to violate laws (McCord 1992c).

## CONCLUSIONS

We conclude this article on Joan McCord's career and her contributions to criminology with a focus on her own conclusions concerning her career and the future of research in criminology

### How Theory Should be Constructed

Joan McCord was a strong advocate of two orientations that have often been in conflict within criminology: theoretical and empirical work. A good example of the way she dealt with this problem can be found in a book she edited when she had become a leading figure in criminology (McCord 1993a). In the introduction of the book, she explained that in the first volume of the series *Advances in Criminological Theory*, Marvin Wolfgang had concluded that criminological theory was static. Joan decided to take the lead and show how to advance criminological theory. She accepted an invitation to edit a volume that would follow her premise that "good theory begins with good data" (McCord 1993a, p. vii). The book included 12 chapters, ranging from biological aspects of criminal behavior to family management, personality and her own contribution focusing on motivations for aggressive and altruistic behavior. Not surprisingly, most chapters were based on longitudinal studies. Joan concluded that "the heart of empirical science, I believe, begins with Plato's observation that if we do not know what we are looking for, we will not recognize it. Yet if we could not discover what we do not expect, we would not be able to correct false beliefs" (McCord 1993a, p. ix).

### Tackling the Juvenile Crime and Juvenile Justice Problems for the Twenty-First Century

Joan McCord made numerous important contributions to the development of the institutions needed to foster research in criminology. Among her most important functions were President

of the American Society of Criminology in 1988–89, President of the Academy of Experimental Criminology in 2003–2004, vice-president of the International Society of Criminology, and founding member of the Campbell Collaboration Crime and Justice Group.

Her scientific work was also recognized by numerous prestigious awards. She received the Emile Durkheim prize of the International Society of Criminology and the Sutherland and Bloch awards from the American Society of Criminology. The Academy of Experimental Criminology created the Joan McCord award in the months that followed her death.

One of her last major contributions to understanding and preventing criminal behavior was her role as chair of a US National Research Council panel on Juvenile Crime and Juvenile Justice. Beginning in the late 1980s, the rate of arrests for violent crimes by adolescents started to increase in the United States. This increase mirrored an increase that had started a few years earlier for young adults. Some criminologists were predicting a wave of superpredators by the end of the twentieth century. The National Research Council panel was created to analyze the available evidence, analyze the factors that contributed to the phenomena and make recommendations for prevention and control in the twenty-first century. Joan McCord was selected to chair this panel with Cathy Spatz Widom. The panel had 16 members, and 42 other scientists contributed to the committee's work.

Not surprisingly, for a committee cochaired by Joan McCord, the recommendations included (a) increased funding to replicate successful research-based treatment programs; (b) evaluations of all publicly supported intervention programs with funding included in the public support of the programs; and (c) development of treatments that do not group deviant children together.

## Learning How to Learn from Lucky and Unlucky Breaks

On the first page of her touching review of her career (McCord 2002b), Joan McCord uses the term lucky break to describe professors during her college years that she felt had important impacts on how she learned how to learn as well as the benefits that followed throughout her life. Having worked with Joan McCord for many years, and still benefiting from all her work, we can say that she was a lucky break for many generations of young scholars who had the chance, as we did, to interact with her and benefit from her insatiable hunger to learn, her profound wisdom, and her exceptional generosity. Based on the recent biopsychosocial lessons learned from the numerous longitudinal studies that she influenced, we can say that Joan McCord's first lucky break was, most certainly, the instant of her conception, which wired her to be able to benefit from both the lucky as well as unlucky breaks of her life. Without exaggeration, this proved to be for the benefit of criminology, the science of human development, all who interacted with her, and humanity.

## DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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