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Assessing Correctional Rehabilitation: Policy, Practice, and Prospects

by Francis T. Cullen and Paul Gendreau

A theme that has persisted throughout the history of American corrections is that efforts should be made to reform offenders. In particular, at the beginning of the 1900s, the rehabilitative ideal was enthusiastically trumpeted and helped to direct the renovation of the correctional system (e.g., implementation of indeterminate sentencing, parole, probation, a separate juvenile justice system). For the next seven decades, offender treatment reigned as the dominant correctional philosophy. Then, in the early 1970s, rehabilitation suffered a precipitous reversal of fortune. The larger disruptions in American society in this era prompted a general critique of the “state run” criminal justice system. Rehabilitation was blamed by liberals for allowing the state to act coercively against offenders, and was blamed by conservatives for allowing the state to act leniently toward offenders. In this context, the death knell of rehabilitation was seemingly sounded by Robert Martinson’s (1974b) influential “nothing works” essay, which reported that few treatment programs reduced recidivism. This review of evaluation studies gave legitimacy to the antitreatment sentiments of the day; it ostensibly “proved” what everyone “already knew”: Rehabilitation did not work.

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In the subsequent quarter century, a growing revisionist movement has questioned Martinson's portrayal of the empirical status of the effectiveness of treatment interventions. Through painstaking literature reviews, these revisionist scholars have shown that many correctional treatment programs are effective in decreasing recidivism. More recently, they have undertaken more sophisticated quantitative syntheses of an increasing body of evaluation studies through a technique called "meta-analysis." These meta-analyses reveal that across evaluation studies, the recidivism rate is, on average, 10 percentage points lower for the treatment group than for the control group. However, this research has also suggested that some correctional interventions have no effect on offender criminality (e.g., punishment-oriented programs), while others achieve substantial reductions in recidivism (i.e., approximately 25 percent).

This variation in program success has led to a search for those "principles" that distinguish effective treatment interventions from ineffective ones. There is theoretical and empirical support for the conclusion that the rehabilitation programs that achieve the greatest reductions in recidivism use cognitive-behavioral treatments, target known predictors of crime for change, and intervene mainly with high-risk offenders. "Multisystemic treatment" is a concrete example of an effective program that largely conforms to these principles.

In the time ahead, it would appear prudent that correctional policy and practice be "evidence based." Knowledgeable about the extant research, policy-makers would embrace the view that rehabilitation programs, informed by the principles of effective intervention, can "work" to reduce recidivism and thus can help foster public safety. By reaffirming rehabilitation, they would also be pursuing a policy that is consistent with public opinion research showing that Americans continue to believe that offender treatment should be an integral goal of the correctional system.

What should be done with those who break the law? This ostensibly simple question defies a simple answer. The answer most commonly given has changed over time, and which answer is most defensible has been, and continues to this day to be, a source of much dispute. In part, the disputes are contentious and continuous because they reflect *normative* differences—often inextricably linked to larger, deeply felt political ideologies—on what *should* be done to those who flaunt criminal statutes (England 1965). Also at issue, however, are *utilitarian* considerations: How *effective* is the approach we have chosen to take with criminally wayward citizens? Most important, does it “work” to reduce crime and make us safer?

Since virtually the inception of the modern criminal justice system, a persistent response to the question of what to do with lawbreakers has been to *change* them into law-abiders—that is, to *rehabilitate* them (de Beaumont and de Tocqueville 1964 [1833]; McKelvey 1977; Rothman 1971, 1980; Rotman 1990). Notably, for the first seven decades of the 20th century, rehabilitation was most often the dominant ideal, especially among correctional elites and criminologists, for what the correctional system *should* be organized to achieve (Allen 1964; Cullen and Gilbert 1982; Gibbons 1999; Rothman 1980; Task Force on Corrections 1967, 16). But in the last quarter century, the ideological landscape has been transformed to the point that it is substantially unrecognizable. Today, commentators often assume that punitive responses to offenders—what Todd Clear (1994) calls “penal harm”—have achieved hegemonic status in the United States. Rehabilitation has often been depicted as a failed enterprise that should be purged from the American correctional system or, at least, relegated to a secondary status (Logan and Gaes 1993).

This portrayal is guilty of a measure of hyperbole: Treatment programs are still provided by many correctional agencies and are supported by the American public (Applegate, Cullen, and Fisher 1997). Even so, the viability of rehabilitation as an effective strategy to reduce crime remains a critical concern. If “treating offenders” does not work—if lawbreakers cannot, in fact, be changed into law abiders—then this eminently utilitarian goal of corrections would have no utility and should be abandoned. But if effective rehabilitation interventions do indeed exist and can be delivered in the context of correctional agencies, then the failure to do so would constitute imprudent policy.

Since virtually the inception of the modern criminal justice system, a persistent response to the question of what to do with lawbreakers has been to change them into law-abiders—that is, to rehabilitate them.

The rejection of offender treatment by many parties in the 1970s had serious consequences. Policy changes reflect complex factors and typically cannot be attributed to single causes. Still, the tarnishing of the rehabilitative ideal created opportunities for other ways of “thinking about crime” to gain ascendancy and to influence the direction of correctional policy. As Blumstein (1997, 353) observes, “the vacuum created by the trashing of rehabilitation was soon to be filled by the other two crime control approaches available to the criminal justice system—deterrence and incapacitation” (see also Macallair 1993; Zimring and Hawkins 1995). Again, a central issue is whether the abandonment of, or loss of faith in, rehabilitation as a goal of corrections was deserved—whether other, more punitive approaches should have superseded treatment as the guiding correctional philosophy. Is there reason to conclude that offender treatment should be a core function of the correctional enterprise?

In this context, the main purpose of this essay is to assess the empirical status of correctional rehabilitation: Do correctional interventions reduce offender recidivism? Many definitions of “rehabilitation” abound (Gibbons 1999, 274; Sechrest, White, and Brown 1979, 20–21), but they tend to coalesce around three issues: (1) the intervention is planned or explicitly undertaken, not a chance or unwitting occurrence; (2) the intervention targets for change some aspect about the offender that is thought to cause the offender’s criminality, such as his or her attitudes, cognitive processes, personality or mental health, social relationships to others, educational and vocational skills, and employment; and (3) the intervention is intended to make the offender less likely to break the law in the future—that is, it reduces “recidivism.” We should note that rehabilitation does *not* include interventions that seek to repress criminal involvement through specific deterrence—that is, use punishment to make offenders too fearful of sanctions to recidivate. Again, we wish to assess whether interventions that conform to this general definition of rehabilitation “work” and, if so, to what extent and under what conditions.

This essay is divided into seven sections. In the first section, we discuss why rehabilitation’s place as the dominant correctional approach was called into question. An answer that is commonly given is that research emerged that showed convincingly that “nothing works” to change offenders. We suggest, however, that broader social transformations led people at this particular historical juncture to be open to the message that rehabilitation was ineffective. Accordingly, many people, including criminologists and policymakers, took the position that rehabilitation was *not* simply based on a careful, objective reading of the research-based evidence. Therefore, perhaps we should be cautious about conclusions concerning offender treatment that are not based into the existing research into effective correctional interventions.

In this regard, the second section assesses the most influential review of research that questioned the effectiveness of rehabilitation—Martinson’s (1974b) controversial essay “What Works?—Questions and Answers About Prison Reform.” We examine “narrative” reviews of research that subsequently challenged the thesis that, for all intents and purposes, the correctional system was incapable of reforming offenders. In the third section, we consider the growing number of meta-analyses—quantitative syntheses of the results of evaluation studies—that have supplied important data on “what works” to change offenders (see Losel 1995). We pay special attention to the sophisticated meta-analyses conducted by Mark Lipsey (1992, 1995, 1999; Lipsey and Wilson 1998). In the fourth section, we review the efforts by Canadian psychologists to develop “principles of effective correctional intervention” (see, e.g., Andrews and Bonta 1998; Gendreau 1996b; Gendreau and Andrews 1990). We consider their conceptual framework and the empirical data they, and others, have accumulated that assess this approach. In the fifth section, we discuss a promising treatment program, adopted in a number of places in North America, that demonstrates that rehabilitation can reduce recidivism and be cost effective: “multisystemic therapy” developed by Scott Henggeler and associates (1997, 1999). In the sixth section, we explore the equally important issue of what *does not* work in changing offenders. In general, we report that punitively oriented approaches—many of which might be categorized as seeking to achieve specific deterrence—are not effective in reducing recidivism.

We end this essay in the seventh section, which urges the embrace of “evidence-based corrections” (see Sherman 1998). Although correctional policies are necessarily influenced by value, resource, organizational, and political factors (Rezmovic 1979), we suggest that programs that seek to reduce criminal involvement should be informed by the scientific data on what works. The goal should be to develop a clearer understanding of what the “best bets” are to successfully correct offenders (Rhine 1998). We also contend that rehabilitation should be “reaffirmed” as a goal of the correctional system—that the system should not be abandoned to other crime control approaches (see Cullen and Gilbert 1982). What precise role the treatment ideal should play in directing policy will, and undoubtedly should, remain an ongoing source of debate. Nonetheless, there are two reasons for supporting a prominent role for rehabilitation in the correctional enterprise: Rehabilitation reduces recidivism, and its use is supported by the public.

Attacking Rehabilitation

The rise of individualized treatment

The idea that correctional intervention should *reform* offenders—should change who they are so that they will be less criminal—goes back in the United States to the invention of the penitentiary in the first part of the 1800s (de Beaumont and de Tocqueville 1964 [1833]; Rothman 1971). The very word “penitentiary” suggests that the prison was not to be a place where offenders were merely warehoused or suffered their just deserts, but rather that the experience of incarceration was to transform their very spirit and habits of living. Why penitentiaries emerged is open to considerable debate. Some scholars see the American prison as a humanitarian invention—a step in the march of progress—that moved away from the gallows, the pillory, the whipping post, and other barbaric punishments; other scholars see it as emerging from a changing social context that prompted the view that solving crime could be achieved by removing offenders from the prevailing criminogenic, disorderly environment and placing them in the morally pure, orderly environment created behind institutional walls; and still others see prisons as part of a sinister plot by political and economic elites to create an institutional machine capable of disciplining the poor and transforming them into productive workers (see Foucault 1977; McKelvey 1977; Rothman 1971; see also Colvin 1997; Garland 1990; Ignatieff 1981). Regardless, it is clear that correctional interventions—including prisons—have a lengthy history in the United States of being justified as serving the goal of reforming their charges.

A collateral theme is that rehabilitation has typically been couched in terms of “doing good” for offenders (McGee 1969). To be sure, advocates rarely discount the idea that reforming offenders also has the general utilitarian effect of improving public safety. And critics have often claimed that, in reality, rehabilitation is not an instrument for encouraging good works but a “noble lie”—an ideology that allows coercion to flourish behind a mask of benevolence (Morris 1974; Rothman 1980). Still, at least ideologically, those endorsing rehabilitation do so in large part because it is believed to improve, invest in, or otherwise help the wayward. Importantly, this link between reforming offenders and doing good reflects Christian ideals. Until the 1900s, nearly all reform efforts were justified as religiously informed, if not inspired, undertakings. The religious overtones of the label “penitentiary” are obvious. But the appeal to religion can be found in numerous writings about corrections over time. Take, for example, Zebulon Brockway’s (1871, 42) call for reform more than a century ago:

If punishment, suffering, and degradation are deemed deterrent, if they are the best means to reform the criminal and prevent crime, then let prison reform go backward to the pillory, the whipping-post, the gallows, the stake; to corporal violence and extermination! But if the dawn of Christianity has reached us, if we have learned the lesson that *evil is to be overcome with good*, then let prisons and prison systems be lighted by this law of love. Let us leave, for the present, the thought of inflicting punishment upon prisoners to satisfy the so-called justice, and turn toward the two grand divisions of our subject, the real objects of the system, vis.: *the protection of society by the prevention of crime and reformation of criminals*. (Brockway's emphasis.)

The connection of rehabilitation to religion has been insufficiently explored by criminologists. It is likely, however, that religious belief, which remains extensive in the United States, contributes to the continuing appeal of rehabilitation as a goal of corrections and its association with doing good for offenders (Applegate, Cullen, and Fisher forthcoming). Even today, experiments are under way with “faith-based prisons” that seek to transform offenders through religious conversion and extensive programming and, both before and after release, to enmesh them in a community of Christian love (Niebuhr 1998; see also Cullen, Sundt, and Wozniak forthcoming).

If the principles of reforming offenders and doing good have informed rehabilitative efforts across time, the precise means of saving the criminally wayward has changed dramatically. Other scholars have provided accounts that detail the varied correctional interventions that have emerged at specific points in American history (see, e.g., McKelvey 1977; Rothman 1971, 1980; Rotman 1990, 1995). For our more limited purposes, however, we will focus on three major shifts that occurred in thinking about how best to reform offenders.

First, in the 1820s, the United States initiated its penitentiary experiment (Rothman 1971). Those with even a cursory familiarity with the history of corrections will recall the competition between the two classic designs for the penitentiary: the Pennsylvania “solitary” model and the Auburn “congregate” model. The reformative strategy underlying both these models, however, was the same. On one hand, insulate inmates—whether through solitary confinement or silence—from the corrupting influences in society and from associating with other offenders; on the other hand, reform their spirit and habits through religious influence and daily labor.

Second, by the latter part of the 1800s, this faith in the routines of prison to change offenders had lost its appeal. A belief in religious training and labor remained and, at times, education was added to the reformative prescription.

But a new ingredient—said to be the key to the whole enterprise—was added: the indeterminate sentence.

The field's leading practitioners, who were also its leading thinkers, met in Cincinnati in 1870 to develop a "new penology"; this was the first meeting of the National Congress on Penitentiary and Reformatory Discipline (Wines 1871). They noted that "the treatment of criminals by society is for the protection of society," but that the "supreme aim of prison discipline is the reformation of criminals, not the infliction of vindictive suffering" (p. 541). The difficulty with past efforts, however, was that inmates had no clear incentives to change since, after all, their release date was fixed at the time of sentencing. "The prisoner's destiny should be placed, measurably, in his own hands," the Declaration of Principles read; "he must be put into circumstances where he will be able, through his own exertions, to continually better his own condition. A regulated self-interest must be brought into play, and made constantly operative" (p. 541). Such an incentive system should provide inmates with "hope" and stress "rewards, more than punishments" (p. 541). A "mark system" in prison would allow offenders to earn a higher level of prison classification that would provide more of life's amenities and more freedom. But the main incentive to change would be the indeterminate sentence that would link release from prison to reform. "Sentences limited only by satisfactory proof of reformation should be substituted for those measured by mere lapse of time" (pp. 541–542).

These prison reformers had only a rudimentary understanding of human behavior, basing their views on crime in the broader cultural views that lawbreaking was a sign that the offender lacked moral fiber, a fate caused by the offender's failure to be exposed to religion, education, and industrious labor. By the latter part of the 19th century, however, the social sciences were developing and advancing more academic and secular understandings of behavior. In the area of corrections, these insights were welcomed, for they ostensibly furnished deeper insight into what was causing an individual's criminality and, in turn, what a correctional intervention might then target for reformation (Rothman 1980). This marriage of the "new penology" and "positivist criminology" resulted in the creation of the "rehabilitative ideal"—a correctional paradigm that would reign supreme for nearly seven decades into the 20th century (Allen 1964). This paradigm had several interrelated components.

First, it embraced the belief that crime was caused by an array of psychological and social factors that, in a fashion unique to each individual, intersected to push a person to the other side of the law. Second and relatedly, the way to prevent future crime was to change the unique set of factors that drove each individual into crime. Third, the process of corrections should be organized to identify these crime-causing factors and to eliminate them. That is, the goal of

the correctional system should be rehabilitation. Fourth, since each offender's path into crime was different, the rehabilitation that was delivered had to be customized so that each offender was assessed on a case-by-case basis. That is, rehabilitation was to be *individualized*. Fifth, to provide individualized treatment, the state, through its agents in the correctional process, was to be invested with virtually unfettered *discretion*. Rather than base sanctions on the nature of the crime committed—a vestige of the unscientific approach to crime embraced by the classical school of criminology—sanctions would be directed to the individual needs and circumstances of offenders. Much like physicians do with those who are physically ill, correctional decisionmakers would use their expertise, rooted in the emerging social sciences, to diagnose and cure offenders. To do so effectively, they had to be *trusted* to exercise their discretionary decisions wisely and not coercively (Rothman 1980).

During the Progressive Era—roughly the first two decades of the 20th century—this line of thinking helped to refashion the criminal justice system. The roster of changes was remarkable: the invention of a nonadversarial juvenile justice system, whose purpose was to “save” wayward children; the development of substantial indeterminacy in sentencing; the spread of probation, with its focus on presentence reports and offender supervision; and the rise of parole boards, parole release, and parole officers. Together, this package of reforms was intended to make possible the individualized treatment of offenders. Thus, once an offender was convicted, the probation officer would study the offender's life and render a presentence report. Informed by this knowledge, the judge would have wide discretion in sentencing. Some offenders would be placed on probation, where they would be supervised by probation officers. These officers would both treat and control offenders, advancing their rehabilitation when possible and protecting public safety by sending the unreformed to prison for more intensive intervention. If sent to prison—by the judge initially or after failing on probation—offenders could earn their release through rehabilitation. Parole boards would make this judgement about which offenders were cured. Those returned to the community would be under the guidance of parole officers who would assist in their reintegration and, if necessary, return them to prison if their rehabilitation proved incomplete.

As Rothman (1980) and many others have pointed out, this ideal system was never implemented as intended. Although the contours of the correctional system changed—the juvenile court, indeterminate sentencing, probation, parole, and discretion became integral features of this system—the resources and knowledge needed to provide effective treatment to offenders were in short supply. Even so, these discrepancies between the ideal and reality were not viewed as fundamental flaws in the underlying paradigm of individualized

treatment but rather as shortcomings to be addressed. The goal of rehabilitation thus retained wide appeal, far outdistancing “get tough” ideas as the fashionable correctional philosophy.

A third period of reform, which sought to professionalize and sophisticate the rehabilitative ideal, was signaled by the conscious use of the term “corrections.” In 1954, the American Prison Association—the professional organization to which the leaders in corrections belong—changed its name to the American Correctional Association. Prisons were now relabeled “correctional institutions” (Cressey 1958; Irwin 1980; Rotman 1995). This change was more than euphemistic. In the next two decades, an array of “treatment” programs was introduced inside prisons, such as individual and group counseling, therapeutic milieus, behavioral modification, vocational training, work release and furloughs, and college education. New and more sophisticated classification systems were implemented. Relatedly, there was a movement, which gained steam in the 1960s, to foster “community treatment” and the “reintegration” of offenders into the community.

Observers of American corrections were not unmindful of the problems associated with implementing programs that had the difficult task of changing lawbreakers (Cressey 1958; Gibbons 1999). The lack of resources and trained staff needed to carry out programs effectively was commonly cited. Still, in the mid-1960s, few criminologists or correctional administrators debated that rehabilitation was the enlightened course to pursue. Thus, it is instructive that Karl Menninger (1968) earned rave reviews for his book, *The Crime of Punishment*. Near the same time, Jackson Toby’s (1964, 332) assessment of criminology textbooks led him to conclude “that students reading these textbooks might infer that punishment is a vestigial carryover of a barbaric past and will disappear as humanitarianism and rationality spread.” Reflecting on that era, Don Gibbons (1999, 272) observes that “it seemed to many criminologists that they were about to become ‘scholar-princes’ who would lead a social movement away from punitive responses to criminals and delinquents and toward a society in which treatment, rehabilitation, and reintegration of deviants and lawbreakers would be the dominant cultural motifs.” And the Task Force on Corrections (1967, 16), working under the auspices of the President’s Commission on Law Enforcement and Administration of Justice, concluded their section on “the purpose of corrections” in this way: “The ultimate goal of corrections under any theory is to make the community safer by reducing the incidence of crime. Rehabilitation of offenders to prevent their return to crime is in general the most promising way to achieve this end.” This consensus, however, would be shattered with remarkable force and speed in the years just ahead.

The decline of the rehabilitative ideal

Martinson's study: Does anything work?

In 1974, Robert Martinson published his celebrated review of evaluations of treatment studies, "What Works? Questions and Answers About Prison Reform." This essay, distilled from a 736-page book published a year later (see Lipton, Martinson, and Wilks 1975), provided a pessimistic assessment of the prospects of successfully rehabilitating juvenile and adult offenders. "With few and isolated exceptions," concluded Martinson (1974b, 25), "the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism." This technical phrasing would subsequently be reduced to its core idea: "Nothing works" in correctional treatment.

Martinson's coauthored research was based on the analysis of 231 studies, all of which had to have not only a treatment but also a comparison group, that were published between 1945 and 1967. In his essay, he organized his findings around a series of questions. For example, he posed the query: "Isn't it true that a correctional facility running a truly rehabilitative program—one that prepared inmates for life on the outside through education and vocational training—will turn out more successful individuals than will a prison which merely leaves its inmates to rot?" (Martinson 1974a, 25). Or, "Isn't what's needed is some way of counseling inmates, or helping them with deeper problems that have caused their maladjustment?" (p. 29). Or, "Isn't a truly successful rehabilitative institution the one where the inmate's whole environment is directed towards true correction rather than towards custody or punishment?" (p. 33). Again and again, however, Martinson found that these seemingly plausible views proved to be unsupported by existing studies.

Why was this the case? "Do all of these studies," asked Martinson (1974b, 48), "lead irrevocably to the conclusion that *nothing works*, that we haven't the faintest clue about how to rehabilitate offenders and reduce recidivism?" (emphasis added). Martinson stopped short of explicitly saying that "nothing

Despite reasonable criticisms that would have suggested a more moderate interpretation of the data reviewed by Lipton, Martinson, and Wilks, the "nothing works" doctrine assumed the status of unquestioned truth. Indeed, it is now clear that by the time Martinson's work appeared, many criminologists—and other commentators on corrections—had already decided that rehabilitation was a failed enterprise.

works,” but he left little doubt that this is what he believed. A careful scholar, he admitted that the dismal performance of treatment programs could reflect two other factors: inadequate research studies that were incapable of measuring programs that really were working, and the inadequate implementation of programs that, if they had therapeutic integrity, would be effective. But “it may be,” warned Martinson, “that there is a more radical flaw in our present strategies—that education at its best, or that psychotherapy at its best, cannot overcome, or even appreciably reduce, the powerful tendency for offenders to continue in criminal behavior” (p. 49). Later in the year, Martinson (1974a, 4) noted that nowhere in the Lipton, Martinson, and Wilks (1975) book will one find the assertion that “rehabilitation is a ‘myth.’” Still, he added, “that is a conclusion I have come to . . . based on the evidence made available by this volume” (p. 4).

The Lipton, Martinson, and Wilks (1975) analysis of studies should be recognized for what it was: a thorough, state-of-the-art review of existing literature. Its findings were not wildly misconstrued and were appropriately sobering for those holding utopian views on the prospects for rehabilitating offenders (see Sechrest, White, and Brown 1979). Still, Martinson’s message that “nothing works” assumed an importance far beyond what a single review of research would normally achieve. Despite reasonable criticisms that would have suggested a more moderate interpretation of the data reviewed by Lipton, Martinson, and Wilks (Klockars 1975; Palmer 1975), the “nothing works” doctrine assumed the status of unquestioned truth. Criminologists did not, as is typical, manifest organized skepticism and call for more research; instead, they were resigned to eliminating the now obviously ineffectual practice of enforced therapy. As Blumstein (1997, 352) notes, Martinson’s 1974 essay “created a general despair about the potential of significantly affecting recidivism rates of those presented to the criminal justice system.” Writing not long after the essay appeared, Adams (1976, 76) stated that the “Nothing Works doctrine . . . has shaken the community of criminal justice to its root . . . widely assorted members of the criminal justice field are briskly urging that punishment and incapacitation should be given much higher priority among criminal justice goals.”

It might be claimed that the quality of Lipton, Martinson, and Wilks’ review and Martinson’s provocative and persuasive publicizing of its dismal results combined to make the case against rehabilitation overwhelming. To some extent, criminologists and policymakers were persuaded by the evidence. We should realize, however, that in science, “anomalous” findings are often explained away so long as faith in the larger paradigm remains firm (see, e.g., Cole 1975; Kuhn 1962). And in criminal justice, one would be hard-pressed to show that correctional policies and practices hinge on “what the data say”

(England 1965; Finckenauer and Gavin 1999). Why the “nothing works” idea took on special salience involves more than a rational assessment of research.

It is instructive that Martinson was hardly the first to call into question the effectiveness of correctional intervention. In an early review of correctional interventions, Kirby (1954, 373) lamented that “most treatment programs are based on hope and perhaps informed speculation rather than on verified information.” In 1958, Cressey poignantly observed that “most of the ‘techniques’ used in ‘correcting’ criminals have not been shown to be either effective or ineffective and are only vaguely related to any reputable theory of behavior or criminality” (p. 770). Echoing this view, Wooton’s (1959, 334) review of existing studies led her to conclude that “as to the effectiveness of the comparatively humane methods now in use, surprisingly little evidence is available. . . . Clear evidence that reformatory measures do in fact reform would be very welcome” (see also Glaser 1965). In the mid-1960s, Bailey’s (1966) review of 100 studies from 1940 to 1960 reinforced the conclusion that current programs had no consistent impact on criminal involvement. “Evidence supporting the efficacy of correctional treatment,” he observed, “is slight, inconsistent, and of questionable reliability.” In 1969, Berleman and Steinburn’s review of five major youth programs revealed “uniformly disappointing results: The provision of a preventative service seems no more effective in reducing delinquency than no service at all” (p. 471). Shortly thereafter, Robison and Smith’s (1971, 80) assessment of correctional programs in California concluded that “there is no evidence to support any program’s claim of superior rehabilitative efficacy.” Surveying this landscape, Gold cautioned in January 1974 that it was a “time for skepticism” because “the best data at hand demonstrate that we have not yet solved the problem of the effective treatment of delinquency” (p. 22; see also Logan 1972).

It is equally instructive that as new data more favorable to rehabilitation appeared in the 25 years following Martinson’s essay, the willingness of criminologists to accept these results has been grudging at best (Andrews and Bonta 1998; Gottfredson 1979). This is not to say that no changes in attitudes have taken place (Palmer 1992), but criminologists’ skepticism about the possibility of effective intervention has been continuing and pervasive (Binder and Geis 1984). Again, the paucity of skepticism shown Martinson’s essay is startling by comparison.

The “nothing works” doctrine in context

Together, these observations suggest that the inordinate appeal of the “nothing works” doctrine cannot be explained as merely a rational response to a persuasive argument. The key issue is why, at this particular historical juncture and not earlier in time, the message that nothing works in rehabilitation struck such

a chord. Indeed, it is now clear that by the time Martinson's work appeared, many criminologists—and other commentators on corrections—had already decided that rehabilitation was a failed enterprise. The empirical data only served to confirm what they already “knew.” Subsequent contrary data supportive of treatment were resisted, if not dismissed, because they did not coincide with this view.

A number of commentators have traced the tarnishing of the rehabilitative ideal to the cataclysmic changes that transpired in the larger society from the mid-1960s to the mid-1970s (see, e.g., Allen 1981; Cullen and Gilbert 1982; Cullen and Gendreau 1989; Useem and Kimball 1991). During this period, protest and turmoil not only seemed ubiquitous but also was focused on the inability of the government to fulfill its promises that it would advance civil rights, pursue a just war in Vietnam, and conduct the political system ethically. Urban riots, deception by military officials and the apparently senseless deaths of soldiers, and Watergate belied these promises. “Grand expectations” were dashed, and a wide “confidence gap” involving the government grew commensurately (Lipset and Schneider 1983; Patterson 1996). Within criminal justice, the declining *trust in the state* was exacerbated by the 1971 riot and slaughter of inmates and guards at Attica Prison, which showed the willingness of the government to use extreme violence to suppress offender protests over prison conditions (Useem and Kimball 1991). An intense spotlight was placed on the actions of the state's representatives, especially judges and correctional officials. A defining question emerged: Could these people be trusted to exercise their *discretion*—the discretion legitimated by the rehabilitative ideal—in a prudent and benevolent way?

For *both* conservatives and liberals, the answer was decidedly negative (Cullen and Gilbert 1982). For conservatives, the problem was that judges and parole boards were too *lenient*; they used their discretion to release predatory criminals into the community where they would victimize innocent citizens. For liberals, the discretion given to state officials was applied inequitably and coercively. In their eyes, judges were free to discriminate against poor and minority offenders, while parole boards used their discretion to punish offenders who challenged the status quo of an inhumane prison regime. Under the guise of rehabilitation—the “noble lie” as Morris (1974) termed it—these officials were acting in bad faith (Cullen and Gilbert 1982).

It is noteworthy that many of the “reforms” proposed as an alternative to the Progressives' paradigm of individualized treatment involved the structuring or elimination of discretion. Both sides of the political spectrum thus embraced, initially, determinate sentencing and the abolition of parole. Liberals hoped that a “justice model” would limit the ability of the state to harm offenders; doing “less harm” replaced “doing good” as the goal to be pursued (see, e.g., Fogel

1979; Morris 1974). They argued that offenders should be given an array of legal rights to protect them and ensure their equal treatment during arrest, at trial, and in prison. Rehabilitation, to the extent that it was used, would be voluntary, not enforced. Inmates would be transformed from “correctional clients” into “citizens,” with all the rights and obligations this status conferred (Conrad 1981).

Notably, the liberal “justice model” defined the purpose of sentencing as the imposition of just deserts. Advocates of this model thus forfeited any concern over crime control; only fairness was not to be the function of the criminal justice system. But this was a period of escalating crime rates and of the politicization of crime as an electoral issue. With disorder flourishing in society, conservatives thus rushed into this vacuum to give an unqualified answer about how to solve the crime problem: impose “law and order” (Macallair 1993). Accordingly, their attack on rehabilitation focused on ways to implement policies that would inhibit the ability of judges and correctional officials, especially parole boards, to mitigate the harshness of criminal sanctions. “Get tough” proposals for mandatory minimum sentences and lengthy determinate sentences were later followed by “three strikes and you’re out” laws, which required life sentences for offenders with multiple convictions (Shichor and Sechrest 1996), and “truth in sentencing” laws, which required offenders to serve a high proportion (e.g., 85 percent) of a prison sentence imposed at trial by the judge (Ditton and Wilson 1999). Again, these initiatives shared the goal of increasing the time lawbreakers spent behind bars and of decreasing the discretionary power of judges and correctional officials to release offenders into the community.

We return, then, to the issue of the effectiveness of correctional rehabilitation. Conservatives greeted Martinson’s study with the attitude of “we told you so,” since they traditionally had viewed treatment as robbing the criminal justice system of its bite. But liberals, the heirs to the progressives who invented the rehabilitative ideal, were often harsher in their response toward offender treatment—sort of like a jilted lover seeking revenge. Martinson’s study was held up triumphantly, as final proof of what they “knew to be true”: that the correctional system was, as they suspected, morally and pragmatically bankrupt. In Attica’s wake, such thinking resonated. A new language was created to speak about corrections. Wardens, prison guards, and probation and parole officers thus became “state agents of social control”; interventions were transformed into “degradation ceremonies” and instances of “net widening”; and offenders were portrayed as the “underdog, who tends to be seen as a romantic force engaged in a liberating struggle with retrogressive establishment institutions” (Binder and Geis 1984, 644). Revisionists, in an amazing exercise in reductionism, reconceptualized past reform efforts involving rehabilitation, such as the juvenile court, as being little more than thinly veiled strategies of power that

sought to discipline the poor and reinforce preexisting social inequalities (for a critical analysis, see Garland 1990).

There are, of course, elements of truth in these portrayals of rehabilitation as ineffective, excusing coercion, and diverting attention away from the class and racial inequalities that contribute to the uneven distribution of crime in the United States. These partial truths—these useful reminders of the dangers inherent in the rehabilitative ideal—were extreme in the early 1970s and beyond. Criminologists, a progressive bunch due to their self-selection into the field of criminology and disciplinary training, embraced an antirehabilitation

position almost as a matter of professional ideology (Andrews and Bonta 1998; Binder and Geis 1984; Gottfredson 1979). The study of corrections became largely the study of social problems—of prison violence, crowding, and the like. In contrast to a field such as psychology, which has a commitment to develop effective interventions, criminologists paid scant attention to constructing knowledge about “what works” to change offenders (see also DiIulio 1987). If anything, they were praised and rewarded with opportunities to publish their research when they could show that an acclaimed program did not live up to its billing and that Martinson was right after all (Binder and Geis 1984; Gottfredson 1979).

Palmer (1992) is correct in asserting that we must move beyond the naivete and exuberance that marked the advocacy of rehabilitation in the 1950s and early 1960s and beyond the cynicism and pessimism

that has reigned for much of the last three decades. Advocacy and criticism have their place, but the challenge is to escape ideology and rhetoric and think more openly regarding what the evidence has to say on effective correctional interventions (Adams 1976). Fortunately, a growing body of studies is now able to provide insights on this issue; it is to this topic that the remainder of this essay is devoted.

In recent years, an important—albeit, not unassailable—technique for “making sense” of studies in corrections, and elsewhere, has emerged: the quantitative synthesis of research findings using meta-analytic techniques.

Reconsidering the “Nothing Works” Doctrine

Reviewing evaluation studies is tricky business. The studies often vary in quality and in the information conveyed. The types of studies included in a given treatment category—for example, group counseling or skill development—can

be so dissimilar in modality and clientele that one wonders if the within-group variation makes the categorization meaningless (Klockars 1975). And the findings can be so complex—reducing recidivism under some circumstances but not others—that providing firm answers about “what works” is a daunting exercise. How, then, can one make sense of the corpus of evaluation research on correctional interventions? Is it possible to see the forest through the trees?

In recent years, an important—albeit, not unassailable—technique for “making sense” of studies in corrections, and elsewhere, has emerged: the quantitative synthesis of research findings using meta-analytic techniques. We will return to this technique ahead, but, in essence, a “meta-analysis” measures statistically the average effect on recidivism that an intervention has across all studies; this “effect size” can also be computed for various conditions (e.g., characteristics of offenders, type of setting, study methodology). In the Martinson era, however, this technique was not yet generally available within the social sciences. Instead, scholars employed two interrelated strategies for assessing “what the research says”: the narrative review and the vote counting or ballot box method.

In a narrative review, the author reads the existing literature and then conveys what this research has found. Sometimes studies are described in detail; sometimes conclusions are merely followed by a string of citations. Sometimes studies are given equal weight in making conclusions; sometimes one or two “high quality” studies will sway the interpretation of the research the author conveys. In the vote counting or ballot box method, the author gathers all the evaluation studies—usually breaking them down by different intervention categories (e.g., group counseling)—and then counts how many studies reduced recidivism, how many had no effect on recidivism, and how many may have increased recidivism.

Although these methods have value, they also have two common weaknesses. First, unless coding criteria are made explicit, they are open to considerable subjectivity. For example, how do we decide if a certain study is to be given more weight than another study? How much must recidivism be reduced to make it “count” as a positive finding? Must the difference between a treatment and comparison group be statistically significant even when the risk of a Type II error—of overlooking treatment effects that do in fact exist—is high? Second, even when the results are agreed upon, how do we decide if the glass is “half full” or “half empty”? How much success must treatment programs enjoy to say that they “work”? These and related issues marked the reaction to Martinson’s (1974b) essay and to similar writings in the intervening years.

Martinson revisited

Following the publication of Martinson's (1976b) essay and the voluminous Lipton, Martinson, and Wilks (1975) report, the "nothing works" conclusion was challenged by a limited number of critics. Martinson and his associates, however, could draw solace not only from the widespread acceptance of their position but also from independent reviews conducted by other scholars that ostensibly confirmed their pessimistic findings (see, e.g., Bailey 1966; Berleman and Steinburn 1969; Fishman 1977; Greenberg 1977; Kirby 1954; Logan 1972; Lundman and Scarpitti 1978; Robison and Smith 1971; Sechrest, White, and Brown 1979; Wright and Dixon 1977). "Here and there a few favorable results alleviate the monotony," observed Greenberg (1977, 140–141), "but most of these results are modest and are obtained through evaluations seriously lacking in rigor. The blanket assertion that 'nothing works' is an exaggeration, but not by very much." Similarly, a panel commissioned by the National Academy of Science reviewed a sampling of studies taken from Lipton, Martinson, and Wilks (1975) and concluded that the authors had, with a few minor exceptions, accurately reported their results (Fienberg and Grambsch 1979; Sechrest, White, and Brown 1979). Due to the paucity of quality research on quality interventions, however, they remained agnostic about whether rehabilitation should be reaffirmed or replaced. "Given our current state of knowledge," the panel concluded, "no recommendation for drastic or even substantial change in rehabilitative efforts can be justified on empirical grounds" (Sechrest, White, and Brown 1979, 102).

In fundamental respects, therefore, the Lipton, Martinson, and Wilks (1975) volume was a responsible review of the existing literature at that time (1945 to 1967). Still, certain aspects of their study warrant closer attention because they affect how the findings of this classic work should be understood. First, in a claim invariably repeated in the criminological literature, Martinson (1974b) stated that the Lipton, Martinson, and Wilks research team reviewed 231 studies. Although technically correct, this figure is misleading. To be included in the research, a study had to include a measure for *any* of the following outcomes: recidivism, institutional adjustment, vocational adjustment, educational achievement, drug and alcohol readdiction, personality and attitude change, and community adjustment. Some studies contained data on more than one outcome, so that Lipton and colleagues were able to report the impact of treatment on 286 outcome measures. Importantly, however, their study was based on only 138 measures of recidivism—not 231 as is commonly believed.

Second, Lipton, Martinson, and Wilks (1975, 9) created 11 "treatment methods" or "independent variables" that were then cross-tabulated with the outcome measures, including recidivism: probation, imprisonment (sentence

length), parole, casework and individual counseling, skill development, individual psychotherapy, group methods, milieu therapy, partial physical custody (halfway house placement), medical methods (plastic surgery, castration), and leisure-time activities. Although useful to examine, it is difficult to see how probation, imprisonment, and parole can be classified as “treatments.” If these categories are taken out of the analysis, the number of recidivism outcomes for the study, which started at 138, is reduced by 55 to 83 outcome measures. We might even argue that partial physical custody, medical methods, and leisure-time activities are not treatment modalities per se; if so, then the outcome measures for recidivism are lowered another 10 outcomes to 73. Regardless of where the line is drawn, the point is clear: The number of studies on which the “nothing works” conclusion was based was far lower than is commonly believed.

This is not a criticism of the study per se, since the Lipton, Martinson, and Wilks analysis was the most comprehensive review when it appeared. But it does mean that the number of studies per treatment category was not high: 7 for casework/individual counseling; 15 for skill development; 12 for individual psychotherapy; 19 for group methods; and 20 for milieu therapy. When the heterogeneity of studies falling into each category is examined, the difficulty in interpreting the results becomes clearer. As Klockars (1975, 58–59) points out, the “skill category,” for example, included programs that provided such diverse services as vocational counseling, role modeling, training in data processing, and attending school. Although provocative, Klockars (p. 59) has a point when he claims “that the ‘independent variable category’ of ‘skill development’ is, at best, an editorial and organizational fiction that has no coherence on any other basis. It is thus preposterous,” he continues, “to talk in any way about the effects of ‘skill development’ as a category, since as a category it simply doesn’t exist.”

Third, Lipton, Martinson, and Wilks did *not* include a category for “cognitive-behavioral” programs (for a description, see Andrews and Bonta 1998; Lester and Van Voorhis 1997). As Martinson (1974a, 5) noted, “methods not evaluated included work release, methadone maintenance, recent forms of so-called ‘behavior modification,’ and what have come to be called diversion methods” (see also Greenberg 1977, 130, who reviewed only three “behavior modification programs”). This omission is salient because there is growing evidence that these programs are among the most effective in reducing offender recidivism (Andrews and Bonta 1998; Gendreau 1996b). In any case, Martinson did not provide a systematic analysis of cognitive-behavioral programs, and thus the “nothing works” doctrine, as developed in his work, cannot be applied to this treatment modality.

Fourth, as Martinson (1976a, 1976b) pointed out, various intervention strategies did have positive impacts on outcome variables other than recidivism, such as institutional adjustment and educational achievement (see also Lipton, Martinson, and Wilks 1975, 532–558). Admittedly, the key criterion for assessing the utility of treatment interventions from a public policy perspective is whether crime is reduced; this is why recidivism is the primary focus of this essay. Even so, it is worthwhile to note that beyond their influence on recidivism, rehabilitation programs can have collateral beneficial effects on offenders—such as those identified by Martinson. In turn, in calculating the overall utility of treatment programs versus punishment-oriented sanctions that do not invest in improving offenders' lives, some weight might well be given to the collateral benefits gained by exposing offenders to varying treatment conditions.

In this regard, Gaes et al.'s (1999) review of existing research leads them to conclude that prison education and work programs likely reduce postprison recidivism. They also note, however, that an added advantage of these programs is that they tend to improve inmates' institutional adjustment (i.e., they have fewer disciplinary problems) and, after inmates are released into the community, to foster constructive employment and continued participation in education. In turn, when offenders are less disruptive while incarcerated and more productive in the community, society accrues benefits (see also Gerber and Fritsch 1995). Again, even if they are only of secondary importance, these benefits should not be overlooked when assessing the most prudent correctional interventions to implement.

Recounting the ballots

In his essay, Martinson (1974b) presented what amounted to a narrative review of the treatment studies analyzed. His main point was that “rehabilitation efforts . . . had no appreciable effect on recidivism.” By rehabilitation *efforts*, Martinson (1976a) did not mean that no studies had positive effects in reducing recidivism. Instead, he was arguing that no *type* or category of intervention—such as group counseling or skill development—could be shown to *consistently* reduce recidivism across studies, across settings, and across offender types. In practical terms, then, a correctional administrator could not, with any confidence, say that the “best way” to rehabilitate offenders was to use one type of treatment rather than another.

In the best-known rebuttal to Martinson, Ted Palmer (1975) approached the “what works” issue from a different perspective: the vote-counting or ballot box approach. Palmer identified 82 studies cited by Martinson in his 1974 essay. He then counted how many of these studies showed that treatment had a “positive” or “partially positive” effect on recidivism. He calculated that 39

studies, 48 percent of the total, could be categorized as reducing recidivism. This startling figure offered convincing proof, it seemed, that the “nothing works” doctrine was fallacious. Notably, subsequent analyses of other studies published at this time and later—most of which reached pessimistic conclusions about rehabilitation—revealed similar results. As Andrews et al. (1990, 374) observe, “reviews of the literature have routinely found that at least 40 percent of the better-controlled evaluations of correctional treatment services reported positive effects” (see also MacKenzie 1998).

The question, however, is what to make of this mixture of positive, null, and, to a lesser extent, negative findings. One possibility is that correctional intervention is chaotic and not patterned. Interventions that work occur almost randomly. In this view, Martinson’s “nothing works” view would, at least pragmatically, be close to the truth; we would never know how best to intervene since a given treatment modality would be no more, or less, likely to decrease recidivism. The alternative view is that effective correctional intervention is not random but patterned. If so, then the task would be to uncover what it is about programs that work that distinguishes them from programs that do not work. This approach would move the discussion toward the demarcation of “principles of effective intervention”—an approach we will discuss in the upcoming section, “Principles of Effective Correctional Intervention.”

Palmer (1975) made strides in this direction as he tried to identify patterns of results in the studies cited by Martinson (1974b). He concluded, for example, that positive results tended to be more plentiful in programs conducted in the community rather than in prison, for juveniles as opposed to adults, and for offenders at “middle risk.” These provisional hypotheses underlie a broader insight—that future research should move beyond the global question of “what works?” to focus on this issue: “Which methods work best for *which* types of offenders, and under *what* conditions or in what types of settings?” (Palmer 1975, 150; Palmer’s emphasis). The obvious risk to using this approach is that of unending specification—of arguing that rehabilitation would be effective if programs could be developed that could address an unending permutation of offender-treatment type-setting interactions. The practical limitations of the delivery of treatment services within correctional systems, however, means that treatment interventions cannot be customized to individual offenders. Instead, knowledge about “what works” will be useful only to the extent that it matches

Many programs fail to work because they either are ill-conceived (not based on sound criminological theory) and/or have no therapeutic integrity (are not implemented as designed).

offenders to treatment modalities that are broad and can be applied to *categories* of offenders (e.g., high-risk offenders to cognitive-behavioral therapy).

Finally, we must consider that the Lipton, Martinson, and Wilks review may alert us to an ongoing challenge in corrections: that many programs fail to work because they either are ill-conceived (not based on sound criminological theory) and/or have no therapeutic integrity (are not implemented as designed). Scholars undertaking reviews at this time were exasperated not only by the poor methodology used in many evaluations but also by the paucity of programs that made sense criminologically (see, e.g., Bailey 1966; Sechrest, White, and Brown 1979; Wright and Dixon 1977). As Greenberg (1977, 141) commented following his review of correctional interventions, "I never thought it likely that most of these programs would succeed in preventing much return to crime. Where the theoretical assumptions of programs are made explicit, they tend to border on the preposterous. More often they are never made explicit, and we should be of little surprise if hit-or-miss efforts fail." Thus, the question that hung in the balance after Martinson's sobering essay was whether the quality of programs and quality of research would improve to the point where meaningful conclusions could be drawn about the effectiveness of correctional treatments. Sykes' (1958, 133–134) observation ultimately proved prescient: "The greatest naivete, perhaps, lies in those who believe that because progress in methods of reforming the criminal has been so painfully slow and uncertain in the past, little or no progress can be expected in the future."

Martinson reconsiders

Following the Lipton, Martinson, and Wilks (1975) analysis, Martinson and Wilks received funding to update the previous study. Due to Martinson's untimely death, the findings of this synthesis of studies were contained only in a 1979 article by Martinson. This work presents only a sketchy discussion of the methods employed in the analysis. Apparently, however, Martinson first computed the average recidivism rate (which he called the "reprocessing" rate) for all offenders who entered the criminal justice system; presumably he also standardized this figure for the specific population that was being examined in any given analysis (i.e., offenders in the community versus those in institution). He then compared how programs using treatment fared when their results were juxtaposed with this average rate. A total of 555 studies, published between World War II and the late 1970s, was used to calculate both the average recidivism rate and the effectiveness of treatment programs.

Strikingly, Martinson (1979, 254) moved close to Palmer's (1975) view when he stated that the "critical fact seems to be the *conditions* under which the program is delivered" (Martinson's emphasis). His central finding was that treatments

delivered in prison reduced recidivism while those delivered in group homes increased recidivism. Regardless, Martinson retreated from his “nothing works” position. “On the basis of the evidence in our current study,” he stated, “I withdraw this conclusion. I have often said that treatment added to the networks of criminal justice is ‘impotent’ . . . the conclusion is not correct.” Instead, he observed that “treatments will be found to be ‘impotent’ under certain conditions, beneficial under others, and detrimental under still others” (p. 254). It is noteworthy that Martinson’s retraction of the “nothing works” doctrine largely fell on deaf ears.

Bibliotherapy for cynics

The status of Martinson’s essay (1974b) was so exalted that it remained, for some time, one of the most cited works in criminology (Cousineau and Plecas 1982). As Martinson (1979) himself understood, however, numerous evaluation studies—often with more rigorous methodological and/or statistically sophisticated analyses—were emerging. Even so, as noted earlier, many criminologists were content to treat the “nothing works” essay as the “final word.” Empirical reality and their ideological preferences had conveniently coincided, and they now had no need to reopen the issue; rehabilitation was dead and new studies were of little interest.

In contrast, Paul Gendreau and Robert Ross—as well as their colleagues Don Andrews and James Bonta—came from a different sociopolitical context and thus examined the “nothing works” controversy without such intellectual predispositions. All were Canadian psychologists who had experience implementing, administering, and evaluating correctional programs (and later would be seen as comprising a “Canadian school” of rehabilitation). Unlike scholars in the United States, these psychologists did not view rehabilitation as being imbued with larger symbolic significance—it was not a case of “enforced therapy coercively applied by state agents of social control in a politicized criminal (in)justice system” (see Binder and Geis 1984). Instead, the issues surrounding rehabilitation, while important, were more prosaic and empirical: To what extent does correctional treatment reduce recidivism? Under what conditions? They came to the “nothing works” controversy, however, with one disciplinary bias. As clinicians schooled in learning theory, they believed that criminal behavior was largely learned. To the extent that this assumption was true, then, the “nothing works” idea made little sense to them. Offenders, like everyone else, acquire attitudes, beliefs, and behaviors through reinforcement and punishment. But the “nothing works” doctrine implicitly suggests “that criminal offenders are incapable of re-learning or of acquiring new behaviors” (Gendreau and Ross 1979, 465–466). “Why,” Gendreau and Ross (1979, 466) wondered, “should this strange learning block be restricted to this population?”

Gendreau and Ross (1979, 1987) conducted two extensive narrative reviews of research published in journals and books in the post-Martinson era. Their first review, which assessed 95 studies, covered 1973 to early 1978; their second review, which assessed 130 studies, covered 1981 to 1987. Together, these two works pointed to three major conclusions.

First, a major reason why correctional programs fail is that they lack therapeutic integrity. We would not be surprised, for example, if young children turned out to be illiterate if their teachers were untrained, had no standardized curriculum, and met the children once a week for half an hour. Yet many treatment programs were in such a state. On closer inspection, even ostensibly well-designed studies often lacked the kind of “integrity” needed to change offenders’ behavior. Quay’s (1977) critical analysis of Kassebaum, Ward, and Wilner’s (1971) evaluation study is instructive. Although the Kassebaum, Ward, and Wilner research was cited as a prime example of a methodologically rigorous evaluation that showed that treatment was ineffective, Quay found that the real culprit was the lack of integrity of the treatment program. Thus, the program had a weak conceptual base, had counseling groups that were unstable, and employed counselors who were unqualified, were not adequately trained, and did not believe the program would be effective. Similarly, in a study of 27 empirical investigations of applied behavioral programs for delinquency prevention, Emery and Marholin (1977) found that in only 9 percent of the cases were the behaviors targeted for change by the treatment individually selected for each of the youths in the program. Further, in just 30 percent of the studies were the referral behaviors and the behaviors targeted for change clearly related (e.g., one client was referred for stealing cars but was treated for promptness). For Gendreau and Ross (1979, 467), researchers had to move beyond the analysis of inputs and outputs and begin to examine what was going on inside the program:

To what extent do treatment personnel actually adhere to the principles and employ the techniques of the therapy they purport to provide? To what extent are the treatment staff competent? How hard do they work? How much is treatment diluted in the correctional environment so that it becomes treatment in name only?

Second, despite the many obstacles that correctional programming had to surmount, Gendreau and Ross (1979, 1987) uncovered literally scores of examples of treatment interventions that were successful in reducing recidivism. The sheer number of these programs belied the idea that “nothing works” and, taken as a whole, provided much-needed “bibliotherapy for cynics.” In particular, Gendreau and Ross (1979) revealed that behaviorally oriented programs (e.g., incentive systems, behavioral contracts)—heretofore largely ignored in the criminological literature—showed signs of being especially effective (see also

Gendreau and Ross 1983–1984). Further, they noted that successful programs targeted “criminogenic needs”—that is, known predictors of recidivism that are amenable to change (e.g., antisocial attitudes and behaviors).

Third, they observed that offenders—like other humans—are marked by individual differences. Some of these differences pertain to their criminality; offenders differ in their level of risk for reoffending. And some differences relate to their personalities and their ability to learn. Until recently—with the growing popularity of the life-course paradigm—criminologists had been disinterested in, if not outright hostile to, the idea that individual differences are important in understanding criminal involvement (Andrews and Bonta 1998; Binder and Geis 1984). Regardless, Gendreau and Ross (1979, 1987) presented evidence that the effectiveness of treatment programs can vary substantially, to the extent that offenders’ individual differences are measured and taken into account in the delivery of services. They suggested, for example, that high-risk offenders benefited the most from treatment interventions and that offenders with low intellectual abilities would benefit more from programs in structured learning situations (1987, 370–374). These beginning insights, which built on the pioneering work of Andrews and colleagues (1986; see also Warren 1969), would subsequently evolve into more formal “principles of effective intervention” (see later section, “Ineffective Correctional Interventions”).

Meta-Analysis and Treatment Effectiveness: Knowledge Construction in Corrections

The evaluation literature on correctional treatment programs often seems a bewildering mixture of programs that encompass different settings, treatment modalities, samples of offenders, quality of intervention, and so on. Making sense of this diverse research—discerning “what works”—is an enormous challenge. The narrative review, as we have seen, is one tool that can be applied to this task. It has the advantage of allowing the reviewer to focus on the richness of individual studies and, by giving different weights to different studies, to interpret what the research, taken together, “really means.” The disadvantages of this approach, however, place limits on what the narrative review can contribute. As Redondo, Sanchez-Meca, and Garrido (1999, 252) note, traditional narrative reviews:

tend to suffer from (a) selective inclusion of studies, (b) differential subjective weighting of studies in the interpretation of a set of findings, (c) misleading interpretation of study findings, (d) failure to examine other

study characteristics as potential explanations for consistent results across studies, and (e) failure to examine the effect of moderator variables in relationship to the outcome variable.

One strategy that is being used increasingly in both the physical and social sciences to review research studies is “meta-analysis” (Hunt 1997; *Science* 1994). This approach attempts to conduct a quantitative synthesis of the research findings of a body of literature. Instead of asking for a vote count (how many studies work and how many do not?), a meta-analysis computes for each study the “effect size” between the treatment and the outcome variable—which, in rehabilitation studies, is recidivism. The effect size for any study could be a negative number (indicating that the treatment increases recidivism), could be zero (indicating that the treatment had no effect), or could be a positive number (indicating that the treatment reduces recidivism). The computations in the meta-analysis include calculating the effect size in every study, regardless of whether a particular study found a treatment intervention to be statistically significant or nonsignificant. The end result of the meta-analysis is a number—the “average effect size”—that is a precise point estimate of the relationship of the treatment on the outcome measure across all studies. Typically, the effect size statistic is reported as a Pearson’s r and its confidence interval (Rosenthal 1991; Schmidt 1996).

One issue is how to interpret the r value when trying to assess the difference in the recidivism rates of the treatment and control groups. It is noteworthy that under most circumstances, the r value can be read at face value (Gendreau, Goggin, and Paparozzi 1996). In other words, an effect size of $r=0.20$ means that there is exactly, or very close to, a 20-percent difference in the recidivism rates of the treatment and control groups. To illustrate further, Gendreau, Smith, and Goggin (forthcoming) examined the data that Andrews et al. (1990, 403–404, table A1) provided on “appropriate” correctional treatment programs, which, on average, reduced recidivism rates by 31 percent. In all, there were 53 effect sizes or r values reported. They compared the r value with the numerical difference in recidivism between the treatment and control groups under conditions where (1) the recidivism base rate was not overly extreme (30 to 70 percent) and (2) the ratio of the sample sizes between the treatment and control groups was less than three to one. In this case, the mean value of r was within one percentage point of the actual difference in recidivism between the treatment and control groups. When there were extreme base rates of recidivism and/or large differences in the samples sizes, the average difference between the r estimate and the difference in recidivism of the treatment and control groups was still only 2 percentage points.

Another way to convey the substantive meaning of the r value in a meta-analysis is through Rosenthal's (1991) "BESD" (or binomial effect size display) statistic. In this approach, the recidivism rate for a treatment and a control group are computed from a base rate of 50 percent. As Andrews and Bonta (1998, 7) note, if "the correlation between treatment and reoffending is $r=0.20$, then the recidivism rate in the treatment group is 40 percent (50 percent minus 10 percent) compared with 60 percent in the control group (50 percent plus 10 percent)."

No method of reviewing studies, however, is without its weaknesses, including meta-analysis (Science 1994). The validity of the conclusions suggested by a meta-analysis will be affected by "what goes into it." Obviously, whether the sample of studies is exhaustive and includes methodologically sound evaluations will affect the confidence we can have in the results. Less apparent but equally important is the coding scheme used by the researcher. The way studies are coded—into what treatment categories, for example—will influence what knowledge the meta-analysis will produce. In particular, if the coding is not theoretically informed, then important conceptual issues will not be addressed. Further, as with other types of research, a meta-analysis cannot guarantee that the knowledge that is produced is practically useful—that is, that the insights gained from quantitatively synthesizing existing studies can be employed effectively to guide the development of real-world programs. We will revisit these issues later.

There are, however, advantages to using the meta-analytic technique to organize research findings. First, meta-analysis can detect effects that traditional narrative or ballot box reviews fail to capture. Because the statistical power of many evaluation studies is low due to use of small sample sizes, real effects are often missed as studies are counted one by one (Schmidt 1996). By summing effect sizes across a sample of studies regardless of their statistical significance, however, meta-analysis avoids this problem. Thus, as Lipsey (1999, 619) notes, meta-analysis is able:

to identify effects not clearly visible to traditional reviewers . . . because research findings come to us in the form of signal-to-noise ratios, where the signal is the intervention effect we are attempting to estimate and the noise is the background, sampling error, measurement error, and between-study variability that tends to obscure the signal. Meta-analytic techniques allow some of that background noise to be controlled statistically in ways not available to traditional reviewers and, hence, may reveal effects not previously detected.

Second, it is possible to assess whether methodological factors (e.g., the quality of the research design) influence the size of a treatment effect by introducing

them into a multivariate analysis. If a treatment effect is robust after these factors are taken into account, then confidence is increased that the effect is real and not a methodological artifact. Third, and relatedly, through a multivariate analysis, it also is possible to assess whether the magnitude of a treatment effect is conditioned by substantively important “moderating factors,” such as the risk level of offenders or the type of treatment modality employed. Fourth, various statistical procedures (e.g., “fail safe N”) have been developed to provide guidance on the likelihood that the findings of a meta-analysis are, or are not, vulnerable to being reversed as unpublished studies are uncovered and future evaluation studies are conducted (Orwin 1983; Rosnow and Rosenthal 1993). No such statistics, of course, exist for traditional reviews. Fifth, any given meta-analysis is open to replication by other scholars, either on the same data set or on a different data set. In this way, coding decisions or the sample of studies chosen for review can be assessed independently. Again, if a treatment effect is sustained in these replications, then we can have confidence that we have found that something does indeed work to reduce recidivism.

Sixth, and perhaps most noteworthy, by presenting information in a precise, parsimonious way, meta-analysis facilitates the process of constructing knowledge about a topic, such as correctional treatment. Narrative reviews are unwieldy and tend to permit only broad generalizations. In contrast, meta-analysis is better able to convey information that shows, in a more delimited and clear way (e.g., listing effect sizes and their confidence intervals in a table), what does not work, what does work, and (as noted) what factors moderate what works. Let us hasten to say that these data do not allow definitive answers; nonetheless, they do illuminate what we currently know from the existing body of research and what data need to be collected to advance our knowledge base. They also provide clearer guidance on what factors effective programs have in common and, in turn, on what empirically based features correctional personnel should consider including in the treatment interventions they initiate.

In summary, meta-analysis is, like all methodological techniques, open to biases that should be understood and weighed. It is not the only way to decipher the effectiveness of correctional treatment. These caveats stated, meta-analysis is an important means to synthesize research knowledge. It has revised a wide variety of potentially erroneous conclusions about the “reality” of effective intervention in medicine, education, and psychology (Hunt 1997; *Science* 1994). As we will see, meta-analyses have played an important role in challenging the “nothing works” doctrine in corrections. “It is no exaggeration,” observes Lipsey (1999, 614), “that meta-analysis of research on the effectiveness of rehabilitative programming has reversed the conclusion of the prior generation of reviews on this topic.”

Does treatment work?

Overall effect size

It is useful to place the issue of correctional effectiveness in the broader context of whether planned interventions are capable of improving problematic human behavior in general (e.g., mental health, educational performance, developmental difficulties). Might it be, as some have vehemently suggested, that human service interventions just do not work? In a review of 302 meta-analyses, Lipsey and Wilson (1993) addressed this issue. They discovered that across an array of psychological, educational, and behavioral treatments, there was a positive relationship between interventions and outcome measures, with problem behaviors targeted for change in treatment groups reduced by about 25 percent compared with control groups. "The number and scope of effective treatments covered by this conclusion are impressive," they observed, "and the magnitude of the effects for a substantial portion of those treatments is in a range of practical significance by almost any reasonable criteria" (p. 1199).

Even if interventions are effective with a range of other behaviors, the question still remains whether they are able to reduce delinquent and criminal behavior. Lipsey and Wilson (1993) listed 10 meta-analyses that were conducted on evaluations of treatment programs for offenders. In all cases, a positive effect size was reported. There was a tendency, however, for the treatment effect size for offender interventions to be lower than that for interventions targeting other outcomes for change. The lower effect size may reflect the difficulty of changing antisocial conduct and/or the lower quality of interventions with offenders (Losel 1995). Still, it is instructive to reiterate that every meta-analysis of offender treatment indicated that programs, in the aggregate, reduced problem behavior. As such, there is no evidence that offenders cannot be rehabilitated.

Losel (1995) has conducted the most comprehensive assessment of the meta-analyses of offender rehabilitation programs. In a review of 13 meta-analyses published between 1985 and 1995, Losel found that the mean effect size ranged from a low of 0.05 to a high of 0.18. This finding has been confirmed in an updated review by Redondo, Sanchez-Meca, and Garrido (1999, 252). The consistency of the positive effect of treatment in these meta-analyses is important because it suggests that this result, at least in broad terms, is not dependent on the sample of studies selected and coding decisions made by individual authors. Indeed, even meta-analyses conducted by scholars unsympathetic to rehabilitation produced positive effects (see Whitehead and Lab 1989). Losel estimates that across all the meta-analyses, "the mean effect size of all assessed studies probably has a size of about 0.10" (p. 89). Using Rosenthal's (1991) *BESD* statistic, this would mean that the recidivism rate for the treatment group would be 45 percent, while the rate for the control group would be 55 percent.

According to Losel (1995, 90–91), however, this overall effect size might be underestimated. Treatment groups, for example, are often compared with control groups that do not receive “no intervention” but some other type of criminal justice sanction, which might involve some kind of treatment. The use of dependent variables that are measured dichotomously and with official measures of recidivism also may attenuate the effect size. Thus, Lipsey (1992, 98) notes that official indicators of delinquency have low reliability because “it is largely a matter of chance whether a particular delinquent act eventuates in an officially recorded contact with an agent of law enforcement or the juvenile justice system.” He calculates that when this fact is taken into account, the “deattenuated effect size” for the interventions “doubles” (p. 98).

Heterogeneity in effect size

It appears, then, that across *all* interventions, correctional rehabilitation programs reduce recidivism. Within any given sample of studies, however, the effect sizes for certain programs may range from zero (if not a negative number) to 0.40 or higher. What accounts for this heterogeneity in effect sizes? There are two possibilities. First, differences in effect sizes may be due to methodological strengths and weaknesses within studies. Second, the heterogeneity may reflect differences in program-related characteristics, such as the treatment modality, the setting in which the treatment is delivered, the quality and dosage of the intervention, and the type of offender receiving the treatment (for a thoughtful review of these issues, see Losel 1995). These methodological and program-related characteristics are often referred to as “moderating variables” because they condition whether the effect size for an intervention is higher or lower.

It is clear that methodology accounts for a portion of the variability in effect sizes across programs (see, e.g., Lipsey 1992; Redondo, Sanchez-Meca, and Garrido 1999). At this stage, however, it is difficult to establish which methodological variables might be most important in explaining program heterogeneity. In large part, this is because authors of meta-analyses often use different coding schemes to categorize methodological issues. Perhaps more important, many evaluation studies do not provide enough information to systematically code how the effect size varies by methodological consideration. There is some evidence, for example, that studies using more rigorous evaluation designs produce lower effect sizes, but this finding is not consistent across meta-analyses (see, e.g., Redondo, Sanchez-Meca, and Garrido 1999). It also is claimed that effect sizes are higher for published studies than for unpublished studies, because evaluation studies that have statistically significant effects are more likely to be submitted and accepted for publication in research journals. Not all

meta-analyses, however, have supported this contention (Redondo, Sanchez-Meca, and Garrido 1999). More generally, there is evidence that even when methodological considerations are taken into account, the “method adjusted” effect size does not differ dramatically from the “observed” effect size for most intervention categories (Lipsey 1999). That is, in general, methodological factors do not “explain away” the variation in effect sizes among treatment programs.

It also is challenging to discern what program-related characteristics moderate the effect size achieved by interventions. There is some evidence that interventions may be more effective in reducing recidivism when they are delivered in the community and for younger offenders (Andrews et al. 1990; Cleland et al. 1997; Losel 1995; Redondo, Sanchez-Meca, and Garrido 1999). Again, however, these relationships are not found in all meta-analyses and may be more complicated than they seem on the surface. For example, in their meta-analysis of 32 European programs, Redondo, Sanchez-Meca, and Garrido (1999) report that the effect size was nearly twice as high for youthful offenders as for adult offenders. But this difference, the authors contend, was likely due to the use of more effective programs with juveniles as opposed to an age-graded amenability or resistance to treatment (but see Cleland et al. 1997).

There is more consensus on what types of interventions achieve the lowest and highest effect sizes—that is, consensus on what does and does not work to reduce recidivism. As will be explored in more detail in a later section, deterrence-based interventions tend to be particularly ineffective in diminishing criminal involvement (see, e.g., Andrews et al. 1990; Lipsey 1992; Lipsey and Wilson 1998). According to Losel (1995, 91), it also appears that “less structured approaches such as casework or individual and group counseling are repeatedly less successful.” In contrast, notes Losel, there is growing evidence from existing meta-analyses that “it is mostly cognitive-behavioural, skill-oriented and multi-modal programmes that yield the best effects” (p. 91); that is, programs that tend to be based on social learning principles, seek to create human capital in offenders, and use more than one treatment modality to target multiple problems that offenders may be experiencing (see also Andrews et al. 1990; Palmer 1995; Lipsey 1992; Redondo, Sanchez-Meca, and Garrido 1999).

Even so, Palmer (1995) cautions that in terms of recidivism, not all cognitive-behavioral programs are successful and not all less effective interventions—such as counseling programs—are unsuccessful. In part, this finding is due to the fact that treatment labels may mask what is actually done in the program (e.g., a counseling program can involve behavioral measures). This finding may also be due to an intervention’s effectiveness reflecting other programmatic

characteristics, such as staff training, how services are delivered, the matching of staff and offender styles, and the offender population that was targeted for change. As Palmer points out, constructing knowledge about effective interventions involves exploring two interrelated concerns: First, we need to learn more about what combinations of program-related factors work in concert to reduce recidivism. Second, we need to move beyond inductively uncovering—through meta-analyses or other means—correlates of successful programs to developing more coherent theories for explaining *why* programs do or do not work. We will revisit these issues in the section on “Ineffective Correctional Interventions.”

“Real world” issues

Treating serious offenders

Although rehabilitation appears to have a consistent effect in reducing recidivism, a skeptic might wonder whether these programs only work with low-risk, relatively petty offenders—the “less hardened” cases (Lipsey and Wilson 1998). If so, then the programs might be effective, but only in decreasing conduct that, while a nuisance, is not exceedingly consequential. But this does not appear to be the case. The main debate in this area is not over whether treatment interventions can diminish the criminality of high-risk, serious offenders, but rather whether they can be equally effective with lower risk offenders. Some meta-analyses suggest that rehabilitation works more effectively when it targets high-risk offenders, while others indicate that the effect size of interventions is not moderated by risk levels (Andrews et al. 1990; Losel 1995; Redondo, Sanchez-Meca, and Garrido 1999). Regardless, the research clearly shows that serious offenders are not beyond the reach of correctional treatment.

Lipsey and Wilson (1998) furnish the most convincing support of this conclusion in their meta-analysis of 200 studies that evaluated the effects of intervention on serious juvenile offenders. They report that across all studies, the difference in recidivism between the treatment and control groups was 6 percentage points (the equivalent of 44 percent for the treatment group versus 50 percent for the control group). This reduction “represents a 12 percent decrease in recidivism (6/50)” (p. 318).

As with meta-analyses of all offenders, however, the heterogeneity around this mean was considerable. While some programs did not affect or even increased recidivism, the most successful interventions had a difference between treatment and control groups of more than 20 percentage points. These results held for samples of youths who were institutionalized and in the community and held for samples of more serious youthful offenders under supervision in the community. They also were sustained when the effect sizes for interventions

were adjusted for methodological differences in studies. Finally, Lipsey and Wilson (1998) note that, with a few exceptions, the roster of effective and ineffective treatments appears similar to what meta-analysis of studies reveals for offenders in general. Programs thus tend to have effects that occur, with some variation, across offender populations.

In short, when lumped together, interventions reduced criminal involvement; and when the “best programs” were singled out, the crime savings were substantial. According to Lipsey and Wilson (1998, 338), the reduction in recidivism is “an accomplishment of considerable practical value in terms of the expense and social damage associated with the delinquent behavior of these juveniles.” In this regard, Cohen (1998) has calculated the cost-effectiveness of “saving a high-risk youth.” Such cost-benefit analyses are based on imprecise estimates of the rate of criminal participation by such youths (the so-called “lambda”) and on assessments not only of property loss and lost wages but the more amorphous category of pain and suffering. Still, Cohen presents a thoughtful analysis that takes into account various values—higher and lower—for the components in the equation used to calculate what society is spared economically when a youth is diverted from a life in crime. The most noteworthy finding is that the tipping point for an intervention to be cost effective is remarkably low. The average high-risk youth will cost society an estimated \$1.7 to \$2.3 million. Depending on when the intervention takes place (how early) and what it costs, a treatment program can “pay for itself” with a success rate in the range of 1 to 5 percent (see also Aos et al. 1999; Greenwood et al. 1996; Lipsey 1984). Although not directly comparable, it is perhaps instructive nonetheless that medical treatments that reduce potentially serious illness by 3 to 5 percent are considered very cost effective (Hunt 1997; Rosnow and Rosenthal 1993).

This kind of cost-benefit analysis is not intended to be used to fully determine policy decisions. For example, although governmental jurisdictions that administer treatment programs may save costs for community residents who are spared victimization, they may strain their budget since the monetary savings from the crimes prevented do not bring in revenues to the jurisdiction. Of

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course, this consideration is true for cost analyses of other criminal justice interventions, including whether prisons are cost effective (see, e.g., DiIulio and Piehl 1991; Piehl and DiIulio 1995). The broad point is merely that the reductions in recidivism achieved by many treatment interventions arguably are meaningful in the real world (see also Rosenthal 1991). They also may compare favorably with more punitive interventions that are ineffective in reducing recidivism when conducted in the community (Cullen, Wright, and Applegate 1996; Lipsey and Wilson 1998) and enormously costly when limited to incarceration (Greenwood et al. 1996). Further, the cost-effectiveness of rehabilitation programs will be commensurately enhanced to the extent that the treatment modality is prudently selected (based on the evidence of what works) and targets groups that include high-risk offenders (Lipsey 1984).

Practical programs

Okay, a skeptic may continue, rehabilitation programs seem to work with serious offenders. But even if that is true, isn't it also true that many treatment programs are established or guided by the researchers who conduct the evaluations? Might they not "cook" the data? Or, even if they do not, aren't these programs different than everyday, run-of-the-mill interventions that do not have researchers around to train the staff, to provide manuals detailing how to deliver treatment, to monitor and advise workers, and, more generally, to ensure therapeutic integrity? Also, isn't it true that what might work in the special circumstances of a well-controlled experimental study might not work in the real and bleak world of American corrections?

Lipsey's (1999) meta-analysis of 205 "demonstration" programs in which researchers were involved, as opposed to 196 "practical programs," sheds light on this issue. He found that the effect size for practical programs, while positive (3-percent reduction in recidivism), was only about half that of the demonstration programs. Skeptics might conclude that these results confirm their suspicions that everyday, real-world programs achieve, at best, modest reductions in recidivism. Those of a more optimistic orientation, however, might argue not only that treatment effects are, once again, positive, but also that the quality of demonstration programs might well be replicated in practical programs if efforts were made to do so. The lack of training for human service workers, the use of less effective treatment modalities, the failure to develop and utilize well-designed and comprehensive treatment manuals, and the failure to monitor therapeutic integrity—these and other problems are not inherent in correctional rehabilitation but are due to policy decisions that can be rectified. The difficulty with the skeptic's position is that it is self-fulfilling: By arguing that nothing can change, there is no possibility that anything will change.

But the issue does not end here. As Lipsey points out, there is considerable heterogeneity *among* practical programs—some do not work well at all, but others are quite successful. When method-adjusted effect sizes are examined, the differences in recidivism between the treatment and control groups for practical programs for the best categories of treatment programs are 10 percentage points or higher (or a 20-percent reduction in recidivism off the base rate of 50 percent).

Lipsey (1999) also presents an analysis that profiles programs in terms of whether they were more or less effective on four programmatic dimensions: (1) the type of service or intervention used with the offender (e.g., intensive aftercare versus shock incarceration); (2) the role of the juvenile justice system (e.g., those administered by juvenile justice personnel versus others; services delivered from a juvenile justice facility versus those not delivered from such a facility); (3) the amount of service furnished (e.g., longer versus shorter duration of service); and (4) the characteristics of participating juveniles (e.g., characteristics associated with higher recidivism rates versus those associated with lower recidivism rates). Programs were scored “1” or “0” on each dimension, revealing two major findings. First, programs with total scores of 3 or 4 achieved reductions in recidivism of 10 to 12 percentage points; those with 2 favorable characteristics had a 5-percentage-point reduction in recidivism; those with 1 or 0 had no effect on or increased recidivism. These results show that practical programs that are well designed are effective; those that are not do not work. Second, 57 percent of the programs studied fell into the ineffective category (0 or 1). This finding indicates that the majority of practical programs are not designed in a way that will allow them to be effective (see also Gendreau and Goggin 1997).

Again, this consideration returns us to the issue of whether the implementation of effective programs is realistic. It is instructive that even if only in the minority, numerous practical programs are, in fact, in place and operating effectively across the United States. In these cases, choices were made *in the real world* that have resulted in interventions that reduce recidivism. Lipsey is correct, we believe, in advising that meta-analyses have helped us to construct knowledge about treatment effectiveness; the challenge is whether that knowledge will be applied. What the research does show, observes Lipsey (1999, 641), “is that such beneficial effects do not come automatically—a concerted effort must be made to configure the programs in the most favorable manner and to provide the types of services that have been shown to be effective, and avoid those shown to be ineffective.”

Principles of Effective Correctional Intervention

As we have seen, meta-analyses have played—and will continue to play—an important role in identifying the factors that are likely to increase treatment effectiveness. The limitation of such an inductive approach to knowledge construction, however, is that it is not guided by an underlying, coherent framework; it is not, in short, *theoretically* informed. The risk is that it will devolve into a matter of abstracted empiricism—of dredging the data for “significant” relationships without any understanding of why elements of successful programs should be interrelated (Palmer 1995). Let us hasten to say that we are not arguing that meta-analyses should be abandoned. Rather, we are suggesting only that, while an invaluable tool, they need to be supplemented by efforts to build theories of effective intervention.

Over the past decade or so, the aforementioned group of Canadian psychologists—Andrews, Bonta, Gendreau, and Ross most prominent among them—have attempted to move in this direction of developing “principles of effective correctional intervention.” Beyond their own clinical experiences, they derived these principles from the empirical literature on “what works” with offenders—including meta-analyses, narrative reviews, and studies of individual programs—and, more generally, from the behavioral change literature in psychology. Their aim has been to illuminate the contents of the “black box” of treatment programs. As Gendreau (1996b, 118) observes:

The thrust of [our] work . . . has been to look into the “black box” of treatment programs. Unlike Martinson and his followers, we believe it is not sufficient just to sum across studies or file them into general categories. The salient question is what are the principles that distinguish between effective and ineffective programs? What does it mean that an employment program was offered?—what exactly was accomplished under the name of “employment”? As a result of endorsing the perspective of opening the black box, we have been able to generate a number of principles of effective and ineffective intervention.

The principles of effective intervention have been conveyed in considerable detail in a number of forums, which readers are invited to consult (see, e.g., Andrews 1995; Andrews and Bonta 1998; Gendreau 1996b). Our goal here is to present the core ideas of this approach and then to share recent evidence assessing its validity.

Guiding interventions

The first principle is that interventions should *target the known predictors of crime and recidivism for change*. This principle starts with the assumption that correctional treatments must be based on *criminological* knowledge—what they call the “social psychology of criminal conduct” (Andrews 1995; Andrews and Bonta 1998). There are two types of predictors that place offenders at risk for crime: “static” predictors—such as an offender’s criminal history—which cannot be changed, and “dynamic” predictors—such as antisocial values—that can potentially be changed. In this perspective, these dynamic predictors or risk factors are typically referred to as “criminogenic needs.”

In investigating risk factors or predictors of crime, it is possible that the research could have indicated that the major predictors are static. If so, then the prospects for rehabilitation would have been minimal. But this did not turn out to be the case. Meta-analyses reveal that many of the most salient predictors are *dynamic* (Andrews and Bonta 1998; Gendreau, Little, and Goggin 1996). These include: (1) “antisocial/procriminal attitudes, values, beliefs and cognitive-emotional states (that is, personal cognitive supports for crime)”; (2) “procriminal associates and isolation from anti-criminal others (that is, interpersonal supports for crime)”; and (3) antisocial personality factors, such as impulsiveness, risk-taking, and low self-control (Andrews 1995, 37; see also Andrews and Bonta 1998, 224–225; Gendreau, Little, and Goggin 1996). Conversely, the research suggests that many factors thought to cause crime, such as low self-esteem, are unrelated or only weakly related to recidivism. Thus, targeting these factors for intervention will produce little, if any, change in offenders’ conduct.

Second, *the treatment services should be behavioral in nature*. In general, behavioral interventions are effective in changing an array of human behavior. With regard to crime, they are well-suited to altering the “criminogenic needs”—antisocial attitudes, cognitions, personality orientations, and associations—that underlie recidivism. For this reason, Andrews argues that behavioral interventions satisfy the criterion of “general responsivity”; that is, they match the needs of offenders. Andrews (1995, 56) notes that these interventions would “employ the cognitive behavioural and social learning techniques of modelling, graduated practice, role playing, reinforcement, extinction, resource provision, concrete

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verbal suggestions (symbolic modelling, giving reasons, prompting) and cognitive restructuring.” Reinforcements in the program should be largely positive, not negative. And the services should be intensive, lasting 3 to 9 months and occupying 40 to 70 percent of the offenders’ time while they are in the program (Gendreau 1996b). In contrast, other treatment modalities lack general responsiveness. Andrews and Hoge (1995, 36) contend that less effective treatment “styles are less structured, self-reflective, verbally interactive and insight-oriented approaches.” Punishment approaches do not target criminogenic needs and thus are among the most ineffective interventions with offenders.

Readers wishing to learn more about the nature of cognitive-behavioral programs might wish to consult general source material in psychology on this intervention (Masters et al. 1987; Spiegler and Guevremont 1998) and works discussing the application of this approach to offenders (Andrews and Bonta 1998, 286–288; Gendreau 1996b, 120–122; Lester and Van Voorhis 1997). Here, we have space to review several relevant points. At the core of any behavioral program is the principle of operant conditioning: that is, that a behavior will be learned if it is immediately reinforced. Reinforcers, which are usually pleasant or desirable, increase or strengthen the behavior in question. There are four basic types of reinforcers: (1) material (e.g., money, goods); (2) activities (e.g., recreation); (3) social (e.g., attention, praise, approval); and (4) covert (thoughts, self-evaluation).

The most common forms of behavioral programs nowadays are known as “cognitive-behavioral.” There are several different types of strategies in this regard—some rather subtle in their differences—but essentially they all attempt to accomplish two aims: First, they try to cognitively restructure the distorted or erroneous cognition of an individual; second, they try to assist the person to learn new, adaptive cognitive skills. In the case of offenders, existing cognitive distortions are thoughts and values that justify antisocial activities (e.g., aggression, stealing, substance abuse) and that denigrate conventional prosocial pursuits regarding education, work, and social relationships. Most offenders also have minimal cognitive skills enabling them to behave in a prosocial fashion. In light of these deficits, effective cognitive-behavioral programs attempt to assist offenders: (1) to define the problems that led them into conflict with authorities, (2) to select goals, (3) to generate new alternative prosocial solutions, and then (4) to implement these solutions. Cognitive therapists must engender a relationship with the client that is open and caring, yet remains within the ethical limits of the therapist-patient relationship.

Thus, in any cognitive-behavioral program within corrections, an observer would witness some of the following scenarios or approximations thereof. The predominant antisocial beliefs of the offender in question are identified. In a

firm yet fair and respectful manner, it is pointed out to the offender that the beliefs in question are not acceptable. If the antisocial beliefs continue, emphatic disapproval (e.g., withdrawal of social reinforcers) always follows. Meanwhile, the offender is exposed to alternative prosocial ways of thinking and behaving by concrete modeling on the part of the therapist in one-on-one sessions or in structured group learning settings (e.g., courses in anger management). Gradually, with repeated practice, and always with the immediate application of reinforcers whenever the offender demonstrates prosocial beliefs and conduct, the offender's behavior is shaped to an appropriate level.

Third, *treatment interventions should be used primarily with higher risk offenders, targeting their criminogenic needs (dynamic risk factors) for change.* In contrast to conventional wisdom, higher risk offenders are capable of change. The most substantial savings in recidivism are acquired by providing them with treatment services. Further, "less hardened" or lower risk offenders generally do not require intervention because they are unlikely to recidivate. Subjecting them to structured, intrusive interventions is an imprudent use of scarce resources and, under certain circumstances, may increase recidivism (Andrews and Bonta 1998, 243). The most effective strategy for discerning the risk level of offenders is to rely not on clinical judgements but on actuarial-based assessment instruments, such as the Level of Supervision Inventory (Bonta 1996; Gendreau, Goggin, and Paparozzi 1996).

Fourth, *a range of other considerations, if addressed, will increase treatment effectiveness.* These include, among others, conducting interventions in the community as opposed to in an institutional setting; ensuring that the program uses staff who are well trained, are interpersonally sensitive, are monitored, and know how to deliver the treatment service; and following offenders after they have completed the program and giving them structured relapse prevention ("after-care") (Andrews 1995; Andrews and Hoge 1995; Gendreau 1996b). Among the most important considerations is "specific responsibility." This concept refers to the practice of matching styles and modes of treatment service to the learning styles of offenders (Andrews and Bonta 1998, 245; Gendreau 1996b, 122–123). Factors that might be taken into account in service delivery are the offenders' lack of motivation to participate in the program, feelings of anxiety or depression, and neuropsychological deficits stemming from early childhood experiences (e.g., physical trauma). Cullen et al. (1997, 403) outline a concrete example of how specific responsibility functions in the case of offenders with intellectual deficits:

[O]ffenders who have low IQs would perform more effectively than higher functioning offenders in an instructional format that requires less verbal and written fluency and less abstract conceptualizations. In addition, they would

likely profit from a more extensive use of tangible reinforcers and from repeated, graduated behavioral rehearsal and shaping of skills. Moreover, therapists should be selected who relate optimally to offenders' styles of intellectual functioning and to the content of the treatment modality.

Testing the principles of effective treatment

In 1990, Andrews et al. presented a systematic test of whether interventions reflecting the core principles of effective intervention achieve, as hypothesized, greater reductions in recidivism. In a meta-analysis of 80 program evaluation studies, they coded studies as to whether they: (1) delivered services to high-risk offenders, (2) targeted criminogenic needs for change, and (3) used "styles and modes of treatment (e.g., cognitive and behavioral) that are matched with client need and learning styles"—that is, were characterized by "responsivity" (p. 369). Based on this scheme, they categorized treatment interventions as "appropriate" (consistent with these three principles of effective intervention), "inappropriate" (inconsistent with these principles), and "unspecified" (could not be categorized due to lack of programmatic information). Recall that this approach differs from previous meta-analyses that categorized programs largely by generic treatment categories (e.g., counseling, skills enhancement, vocational, deterrence). In contrast, the Andrews et al. approach seeks to look inside the "black box" of programs and to code interventions according to an *a priori*, theoretically based scheme. This is why they contend that their meta-analysis is "clinically relevant and psychologically informed" (Andrews et al. 1990, 372).

Across all programs, the effect size was 0.10. There was considerable heterogeneity in effects, however, in the direction predicted by the principles of effective treatment. The effect size for appropriate interventions was 0.30, the equivalent of a 30-percent reduction in recidivism. The effect size for unspecified interventions was less than half this figure, 0.13. Notably, the effect size for inappropriate interventions was -0.07 , meaning that these "treatment" groups had a recidivism rate 7 percentage points higher than the control groups.

Some critics have implied, if not directly stated, that Andrews et al.'s "appropriate" category was based on tautological reasoning: Anything that reduced recidivism—presumably found by dredging the data—was subsequently labeled "appropriate" (see, e.g., Logan and Gaes 1993; for rebuttals, see Andrews and Bonta 1998; Cullen and Applegate 1997). This is a strange criticism because, even if true, it would mean only that Andrews et al. had built their theory inductively (see Lipsey 1999). In fact, however, the framework used to code the data was preexisting (see Gendreau 1989), and the meta-analysis constituted a test of their theoretical views. Regardless, subsequent research from other scholars has independently lent support to main features of Andrews et al.'s principles of effective intervention.

“It is interesting,” observed Lipsey (1992, 159) in his meta-analysis, “that the treatment types that show this larger order of effects are, with few exceptions, *those defined as most ‘clinically relevant’ in the Andrews et al. review*” (emphasis added). Antonowicz and Ross (1994), scholars familiar with the principles of effective intervention, reached the same conclusion in their meta-analysis. They found that “successful rehabilitation programs” were more likely to have these factors: “(a) a sound conceptual model; (b) multifaceted programming; (c) the targeting of ‘criminogenic needs’; (d) the responsivity principle; (e) roleplaying and modeling; and (f) social cognitive skills training” (p. 97). Support can also be drawn from the preliminary findings from the meta-analysis conducted by the Correctional Drug Abuse Treatment Effectiveness Project. In this replication of the Andrews et al. study, Pearson, Lipton, and Cleland (1996) found that “appropriate” interventions had an effect size (0.22) that far outstripped the effect sizes for “unspecified” (0.09) and “inappropriate” (−0.07) programs.

It is also noteworthy that the original Andrews et al. (1990) meta-analysis has subsequently been extended twice to examine a larger body of studies (Andrews and Bonta 1998; Andrews, Dowden, and Gendreau 1999). The database from the 1999 work now consists of 230 studies that produce 374 effect sizes. The mean effect size across the studies is 0.08 or an 8-percentage-point difference in recidivism between the treatment and control groups. When analyzed by the extent to which the main principles of effective intervention are met (risk, need, and responsivity), the results are, once again, in the hypothesized direction. When no principles are addressed, the programs’ mean effect size is −0.02; when the treatment conforms to one principle, the effect size is 0.02; for two principles, the effect size climbs markedly to 0.18; and when a treatment program conforms to all three principles, the effect size is 0.26. These findings reinforce the conclusion that programs that combine “favorable” or “appropriate” features are capable of achieving meaningful, if not substantial, reductions in offender recidivism (see also Lipsey 1999).

Further considerations

Two additional issues warrant consideration. First, a potentially important consideration is whether the principles of effective intervention differ by gender and race. The dearth of research on this issue precludes making definitive conclusions. An important research opportunity, for example, would be to explore whether gender and race function as “specific responsivity” factors that affect offender learning styles and the optimal way in which to deliver treatment services (Dowden and Andrews 1999).

There is beginning to be evidence, however, that the effects of treatment programs do *not* differ by gender; those that “work” for males also work for females, and those that “don’t work” for males also don’t work for females. Thus, in a meta-analysis in which programs were categorized according to the principles of effective intervention from “inappropriate” to “appropriate,” the findings for women paralleled those for men (compare Dowden and Andrews 1999 with Andrews et al. 1999). Similarly, Lipsey (1999, 20) notes in his meta-analysis of juvenile programs that the “magnitude of program effects on recidivism” did not differ “according to the gender and ethnic mix of the juveniles in the sample.” Thus, it might be possible to offer the *provisional* conclusion that the principles of behavioral change are similar across offenders, regardless of gender and race. Again, however, much more research into this issue is needed.

Second, a potential criticism of the treatment approach based on the principles of effective intervention is that as a psychological approach, it seeks mainly to change the offender rather than the criminogenic context in which he or she is enmeshed. A reasonable concern is whether such programs will work if offenders are “simply returned to the community that caused them to become criminals in the first place.” A considered response to this issue is thus required.

In a sense, the data speak for themselves: The effectiveness of the treatment interventions is assessed by examining recidivism data of offenders who are, in fact, in the community. The assumption that community influences ultimately swamp treatment effects also risks being overly deterministic. It ignores the fact that many people with prosocial values who reside in the community with offenders are not lawbreakers, and it ignores the possibility that intra-individual cognitive change can allow people to resist the lures of crime. Nonetheless, advocates of the principles of effective intervention are not unmindful of potential community influences. Thus, it is instructive that they find that rehabilitation programs have larger effects on recidivism when conducted not behind bars but in the community. This finding may be attributable to the difficulties of delivering services within institutions, but it also may reflect the benefits of working to change offenders while they are living in, and are affected by, their “natural” social environment. Further, rehabilitation advocates also strongly favor “aftercare” programs that function much like “booster shots” in medicine, providing offenders with the guidance and support needed to deal with pressing problems, to develop effective solutions, and to stay on a prosocial life course.

None of these considerations, of course, precludes broader social reforms or community-based prevention programs that lessen the criminogenic factors in the local neighborhood. In a very real way, it is likely counterproductive to pit psychologically relevant correctional treatment interventions *against* programs

that seek to transform the fabric of the neighborhood. A more promising strategy might well be to pursue interventions that target for change the proximate causes of crime within offenders and the criminogenic forces that loom in the larger social context.

Finally, in the next section, we turn to a promising community-based treatment intervention—"multisystemic therapy"—that is predicated on the assumption that the "multiple social systems" that surround children and adolescents are implicated in their conduct problems. This approach embraces the principles of effective intervention but also seeks to specifically address features of the social context that foster antisocial behavior. In a very real way, multisystemic treatment offers one solution to the problem of correctional interventions that, although it can be shown to be effective through evaluation research, may not attack the full array of criminogenic forces that impinge on at-risk individuals.

Multisystemic Therapy: A Model Rehabilitation Program?

Meta-analyses are an invaluable resource in identifying the factors that are associated with successful rehabilitation programs. Even so, it must be remembered that meta-analysis is a statistical technique. This approach provides direction as to what features of interventions enable them to reduce recidivism and have other positive outcomes. Even so, this "direction" or guidance as to what works is not the same as identifying concrete programs that actually have worked in the real world. A special challenge, therefore, is to uncover programs that have proven to be effective in reducing recidivism, preferably in diverse locations. That is, we need "model programs" that can be "copied" successfully. It is beyond the scope of this essay to supply a lengthy catalog of such programs (see, however, Cullen and Applegate 1997; Gendreau 1996b, 119–120; Gendreau and Goggin 1996, 40; Ross, Antonowicz, and Dhaliwal 1995; Ross and Gendreau 1980), but we will focus briefly on one program whose prospects seem especially promising: Multisystemic Therapy (MST).

Developed by Scott Henggeler and associates (see, e.g., Henggeler 1997, 1999; Henggeler et al. 1998), MST has been implemented in 25 locations in the United States and Canada. It has been shown to produce marked reductions in recidivism and in other problem behaviors among "serious anti-social youths" (see, e.g., Borduin et al. 1995; Brown et al. 1999; Henggeler 1997; Henggeler et al. 1997; Henggeler, Pickrel, and Brondino forthcoming; Schoenwald, Brown, and Henggeler 1999; Schoenwald, Ward et al. 1999). In addition, MST has proved to be cost effective. In one estimate, the yearly cost per juvenile was \$4,000 versus a cost of \$12,000 for the "usual" criminal justice sanctioning for

serious delinquents (Henggeler 1999). Although transporting the intervention to other sites has been challenging (Henggeler et al. 1997), MST has achieved reductions in recidivism and has been cost effective in various locations and with various populations of troubled youths (Aos et al. 1999).

Conforming to the principles of effective intervention

Although developed independently of the Canadian school of effective correctional intervention (see again Andrews and Bonta 1998; Gendreau 1996b), MST conforms closely to the core principles of effective treatment. It would thus clearly be identified as an “appropriate” treatment by Andrews et al. (1990; see also Andrews, Dowden, and Gendreau 1999).

First, MST is rooted in social psychological theory and is empirically based. Second, it addresses the “need principle” by targeting for change the individual, family, school, and peer factors that underlie antisocial conduct. The selection of these factors is based on “causal modelling studies of delinquency and substance abuse” (Henggeler 1999, 2). It focuses on “changing the known determinants of youths’ antisocial behavior” (Schoenwald, Brown, and Henggeler 1999, 3). Third, MST conforms to the “risk principle” by focusing primarily on high-risk youths. Fourth, this approach meets the “general responsivity principle” by employing behavioral treatment modalities. “MST interventions,” observe Schoenwald and colleagues (1999, 5), “integrate techniques from those pragmatic and problem-focused child psychotherapy approaches that have at least some empirical support, including pragmatic family therapies (e.g., strategic, structural, behavioral family systems approaches), cognitive-behavioral techniques, and behavioral parent training.” MST also attempts, as much as possible, to individualize interventions and thus be “specifically responsive” to youths in treatment.

Further, MST is consistent with the principle that for interventions to be effective, they must have therapeutic integrity and be intensive. MST thus provides counselors with 5 days of initial training, “booster” training sessions, constant supervision and support, and weekly 1-hour consultations with MST “experts” (Schoenwald, Brown, and Henggeler 1999). Similarly, services are delivered to offenders and their families for a period of 3 to 5 months. Contact is daily at first, and counselors are available for intervention 24 hours a day, 7 days a week.

The success of MST is instructive. Given the extent to which this program conforms to the principles of effective intervention, it can be seen as a field test of the principles’ validity. In short, MST provides added confirmation that “appropriate” treatments are our “best bet” for reducing recidivism among serious offenders.

Unique features of MST

The principles of effective intervention are broadly stated and can encompass a variety of treatment programs. Accordingly, it is useful to learn about the unique features of MST that may also contribute to its success. In fact, it is these more specific factors that may be useful to replicate in the delivery of other intervention strategies. Three “unique features” warrant consideration (for more detail on MST, see Henggeler et al. 1998; Schoenwald, Brown, and Henggeler 1999).

First, MST is *not* based on an intrapsychic view of human behavior that believes that antisocial conduct is altered merely by probing an individual’s personality orientation. Instead, its approach is social-ecological in the sense that it views individuals as enmeshed in multiple systems, including the family, peer group, school, and community. Interventions thus must be “multisystemic,” targeting for change criminogenic aspects of the individual and the contexts in which he or she is situated. In practical terms, this means intervening not only with an antisocial youth but also with how parents supervise and otherwise interact with the youth, steering the youth into prosocial peer-group interactions, and working with schools to enhance the youth’s educational and vocational skills. This approach involves defining a broad set of goals to be reached in a given intervention (e.g., improve parental supervision, decrease truancy). In turn, intermediary goals (e.g., teach a parent how to supervise, monitor a youth’s school attendance each morning) are identified that, if systematically and sequentially attacked, will allow the broader goals, including the reduction of the youth’s recidivism, to be attained (Henggeler et al. 1998; Schoenwald, Brown, and Henggeler 1999). The goals and strategies to achieve these goals are constantly monitored and, if necessary, revised.

Second, MST provides intensive services within the home and community; its goal is to avoid placing youths in institutions. To accomplish this goal, an intervention team made up of one doctoral-level supervisor and three to four master’s-level therapists is employed. Each therapist carries a caseload of 4 to 6 youths/families; the group supervises 50 cases yearly. The advantage of the group approach is that it facilitates supervision (which is conducted mainly in a group meeting) and creates a pool of resources—knowledge, specialized skills, time available—to help intervene with cases that would not be available to a therapist who was a sole practitioner (Schoenwald, Brown, and Henggeler 1999).

Third, MST provides therapists with considerable support (e.g., training, supervision, resources) but also holds therapists accountable for the results of their efforts. As Henggeler (1999, 4) notes, “MST does not follow the ‘train and

hope' approach to mental health services." MST thus is based on the dual considerations that therapists must be given the knowledge and resources to be successful and know that the failure to intervene effectively may mean that the therapist should, as Henggeler (p. 8) puts it, "consider another line of work." More generally, MST is assiduous in its fidelity to treatment integrity, which cannot be ensured in the absence of therapists' support and accountability.

Ineffective Correctional Interventions: Do Control-Oriented Programs Work?

A central policy issue is whether the movement to "get tough" on crime has enhanced public safety. In particular, the massive rise in the prison population—which increased sixfold in three decades, with more than 1.2 million offenders now in State and Federal institutions (Gilliard 1999)—has created an intense interest in whether the extensive use of imprisonment has a meaningful incapacitation effect or, at the aggregate level, deterrent effect. Other scholars have focused on this issue; thus, we will not do so in this essay (compare, for example, Bennett, DiIulio, and Walters 1996 with Clear 1994 and Currie 1998; see also Nagin 1998). Instead, we will concentrate on a byproduct of this more general "get tough" movement: the evolution and assessment of correctional programs that seek to reduce crime by placing greater controls on offenders. These approaches include, for example, longer rather than shorter prison terms, "scared straight" programs, intensive supervision programs, and (to a degree) "boot camps."

We should reiterate that an important focus of the effort to develop principles of effective intervention is not only to discern what "works" to inhibit recidivism but also to identify correctional programs that do not reduce crime and improve public safety. Again, the "principles" approach to corrections is, at its core, social scientific, starting with the premise that the predictors of criminal behavior can be known empirically and then targeted for change through carefully designed interventions. In contrast, most of the control-oriented correctional programs that emerged from the recent "get tough" era were not based on a social-scientific perspective on criminal behavior but on the "common sense" understanding that increasing the pain and/or surveillance of offenders would make them less likely to commit crimes. In the case of boot camps, the theory of criminality was somewhat different: It was assumed here that conformity was caused by a lack of character, which was rectified first by "breaking down offenders" and then "rebuilding them." But the reliance on a folk understanding of criminal conduct was no less pronounced. In the end, those embracing the principles of effective intervention predicted that control-oriented programs, which meet few if any of these principles, would prove ineffective in reducing recidivism. The data suggest that this prognostication was correct.

First, there has been a longstanding debate over whether the prison experience is a deterrent or, in fact, provides a “school of crime” (Bonta and Gendreau 1990, 1991; Murray and Cox 1979). The empirical research on this issue is complex and fairly limited (see Lipton, Martinson, and Wilks 1975). It is instructive, however, that a recent meta-analysis conducted by Gendreau, Goggin, and Cullen (1999) questions whether prison can be considered a “treatment” that reduces recidivism. Their investigation indicates that even when the risk level of offenders is taken into account, those sent to prison have a higher rate of recidivism than those given community sanctions. Further, it appears that longer prison sentences are associated with *greater* criminal involvement, with offenders in the “more imprisonment” category having a recidivism rate 3 percentage points higher than those in the “less imprisonment” category. These results, of course, are inconsistent with the thesis of specific deterrence.

Again, there is no evidence that punishment-oriented “treatment” programs specifically deter or otherwise reform offenders.

Second, meta-analyses are consistent in showing that deterrence-oriented interventions are ineffective. Most meta-analyses include a limited number of evaluations of punishment-oriented programs as part of the sample of studies they assess. These programs fall into the category of “inappropriate” interventions according to the principles of effective treatment. The results are clear: They do not work to reduce recidivism. For example, in Lipsey’s (1992, 124) meta-analysis, deterrence programs heightened recidivism 12 percentage points. In Lipsey and Wilson’s (1998, 332) study of programs for serious, violent youths, deterrence programs heightened recidivism 3 percentage points. In Andrews et al. (1990, 382), sanctioning interventions without human service treatment increased recidivism 7 percentage points; in a followup to this study, the increase was found to be 2 percent (Andrews and Bonta 1998, 270; Andrews, Dowden, and Gendreau 1999). Again, there is no evidence that punishment-oriented “treatment” programs specifically deter or otherwise reform offenders (see also MacKenzie 1998).

Third, the intermediate sanctions movement of the 1980s and beyond was undertaken mainly as a means of reducing prison crowding by *punishing* offenders in the community. As one noted advocate of these sanctions commented, “we are in the business of increasing the heat on probationers . . . satisfying the public’s demand for just punishment. . . . Criminals must be punished for their misdeeds” (Erwin 1986, 17). The main conduit for these sanctions was “intensive supervision probation (or parole)” — commonly referred to as “ISPs.” By watching offenders closely and presumably increasing the certainty that misdeeds would be detected, offenders were to be specifically deterred from

offending. ISPs also often involved other means of detection, especially random drug testing but also electronic monitoring and house arrest. Restitution to victims was commonly part of a community-based sanction. “Boot camps,” also called “shock incarceration,” became fashionable as well.

How well did these types of programs work? With isolated exceptions, they did not fare well. There is some evidence that intermediate sanctions that included treatment achieved some reductions in recidivism (Gendreau, Cullen, and Bonta 1994). But aside from this glimmer of optimism, the research did not show that purely punitive intermediate sanctions diminished recidivism rates. Thus, the best experimental and quasi-experimental studies revealed that these programs had virtually no influence on recidivism (see, e.g., Petersilia and Turner 1993; MacKenzie and Shaw 1993). Narrative reviews, some of which were quite extensive, reached the same conclusion (Cullen, Wright, and Applegate 1996; Fulton et al. 1997; Gendreau et al. 1993; Gendreau and Ross 1987; MacKenzie 1998).

More recently, Gendreau, Goggin, and Fulton (2000) conducted a thorough meta-analysis of 88 comparisons of ISP-type programs with control groups that received “lesser or no sanction.” Only restitution was associated with a decrease in recidivism (4 percentage points) with a comparison with controls. Two sanctions, ISP and drug testing, had no effect on recidivism. Scared straight and electronic monitoring produced a 5-percentage and 7-percentage point increase in recidivism, respectively. Subsequently, Gendreau et al. (1999) have expanded the database to include 150 comparisons involving 56,602 offenders. The overall effect size for all types of intermediate sanctions was found to be 0 percent. Together, these results reveal that relying on punishment to achieve “correctional treatment” is unlikely to work and thus is an imprudent investment of resources.

Conclusion

Robert Martinson’s role in the debate over correctional rehabilitation proved to be both pivotal and enduring. His “nothing works” essay was pivotal because it lent legitimacy to the movement, already under way, to replace rehabilitation as the dominant, if not ideologically hegemonic, correctional philosophy. What had been a matter of opinion seemingly now became a matter of facts, as opponents of rehabilitation could wave Martinson’s (1974b) study in the air and proclaim that science had shown offender treatment to be a fraud. In the subsequent years, however, the opponents of rehabilitation have not shown fidelity to the proposition that evidence should help to guide correctional policy and practice. At times, it appeared as though only a few people seemed able, or at least willing, to read the literature on rehabilitation.

But this much must be said: This was not Martinson's fault. In fact, Martinson's most enduring and important legacy might well be that he helped redefine what *should* be the terms of the debate about the efficacy of rehabilitation. Thus, in conjunction with Lipton and Wilks (1975), he argued that we should: (1) focus on what works to reduce recidivism in corrections, (2) make judgements based on the *evidence*, and (3) derive the evidence from a comprehensive review of methodologically sound evaluation studies. Martinson (1979) also argued that assessments about treatment's efficacy should be revised in the face of new evidence—that the empirical status of rehabilitation was not written in stone but was an issue that warranted continuing study, reappraisal, and “rewriting.”

Martinson's work thus encouraged the formation of two distinct and incompatible “camps” in the rehabilitation debate: one that stressed that “rehabilitation was dead” and that no further study was needed, and one that took Martinson's empirical challenge seriously and then went about the business of collecting and analyzing data. Obviously, we are partial to the latter approach—of basing correctional policy and practice on the *best empirical evidence* available. Of course, on one level, no one would be against consulting “the evidence,” since to do so would be manifestly irrational. In fact, however, only a minority of treatment programs in corrections are rooted in the existing research on “what works.” At the risk of being accused of hyperbole, we would go so far as to say that much of what is done within the field is a matter of *correctional quackery*—practices akin to the “treatment” of bloodletting once practiced in medicine (Gendreau 1999).

To be sure, others may wade through the extant research and be more or less optimistic about the prospects of rehabilitation than we are (see, e.g., Andrews and Bonta 1998; Gaes 1998; Gaes et al. 1999; Gibbons 1999; Lab 1997; MacKenzie 1998; McGuire and Priestley 1995); readers are invited to consult these alternative assessments of the data on correctional treatment. Regardless, we believe that the evidence favors these interpretations because: (1) across all interventions, rehabilitation is more effective in reducing recidivism than alternative criminal justice sanctions; (2) programs that conform to the principles of effective intervention achieve meaningful, and possibly substantial, reductions in recidivism; and (3) numerous individual programs—such as multisystemic

Discretionary decisions continue to be made each day that intimately affect the lives of offenders and influence public safety. An evidence-based approach would argue that these decisions should not be based merely on custom or common sense but on our research knowledge about what is the “best bet” to reduce offender recidivism.

therapy—have been notably efficacious and offer the potential to serve as model interventions in other jurisdictions.

In this context, we will close this essay by focusing on two themes that have informed and that flow from our analysis: the need to pursue “evidence-based” corrections and the wisdom of “reaffirming rehabilitation.”

Evidence-based corrections

In a provocative and important essay, Sherman (1998) has argued that law enforcement should, like medicine, adopt an “evidence based” paradigm to guide police practice. In this paradigm, evaluation research is used to construct guidelines for effective law enforcement approaches to reducing crime. This paradigm is process based and dialectical; guidelines are not rigid, but rather they change as new evaluation evidence from programs based on an initial set of practice guidelines is evaluated. This approach stresses “accountability and continuous quality improvement”; it also implies fostering a professional ethic in which research results, as in medicine, are embraced as fundamental to effective practice.

In the end, it would call on criminology to move beyond its tendency to be a discipline that seeks merely to debunk foolish policy proposals and to engage in the more daunting, but consequential, task of creating knowledge on how best to rehabilitate offenders and protect the social order.

Similarly, we would concur that such an approach is also appropriate for the field of corrections. As Andrews and Hoge (1995, 36) observe, “It is time for evidence-based correctional treatment services.” We understand that corrections will never be the exclusive domain of “what works”; policy decisions will reflect fundamental cultural values, organizational resources, and political realities—among other factors. Even so, an evidence-based approach would place research more systematically and prominently into the mix of factors that shape current correctional policies and practice. Discretionary decisions continue to be made

each day that intimately affect the lives of offenders and influence public safety. An evidence-based approach would argue that these decisions should not be based merely on custom or common sense but on our research knowledge about what is the “best bet” to reduce offender recidivism.

An evidence-based approach must not be atheoretical. Indeed, a central task of this approach would be to construct theories of effective intervention and to

unmask theories of ineffective intervention. Thus, theories of correctional intervention would guide program development. Each program would then be evaluated to determine whether it “works,” with the resulting “evidence” used to assess the merits of the theoretical framework on which the program is based. As noted, we believe that the most promising theoretical approach is the evolving “principles of effective correctional intervention” (Andrews and Bonta 1998; Gendreau 1996b). This approach has the advantage of being rooted in the empirical literature of criminology, behavioral psychology, and correctional evaluation. Still, other theories or conceptual approaches to effective intervention would be welcome to join in the competition—or the collaborative effort—to construct a scientifically based theory of rehabilitation (see, e.g., Prendergast, Anglin, and Wellisch 1995; Palmer 1995).

An evidence-based paradigm also has implications for the study and practice of corrections. Within criminology, this approach would encourage scholars to bridge the nexus between research and practice. It would also require criminologists both to abandon simplistic ideas—such as the view that “nothing works” to change offenders—and to engage in systematic research on what differentiates effective and ineffective correctional interventions. In the end, it would call on criminology to move beyond its tendency to be a discipline that seeks merely to debunk foolish policy proposals and to engage in the more daunting, but consequential, task of creating knowledge on how best to rehabilitate offenders and protect the social order.

An evidence-based paradigm would also suggest an overhaul of certain aspects of correctional practice: the embrace of a professionalism respectful of data; the training of practitioners based on research; the creation of “correctional training academies”—much like police academies—in which knowledge and treatment skills would be imparted (Gendreau 1996a); the implementation of programs informed by an empirically based theory of effective intervention; the acceptance by agency leaders and staff of program evaluation as an integral means of improving treatment effectiveness; and the auditing and accreditation of correctional agencies based on the delivery of effective programming.

In short, an evidence-based approach would mandate that knowledge about correctional effectiveness be (1) constructed, (2) disseminated, and (3) applied. Lest we be accused of naivete, we hasten to admit that each of these tasks presents formidable and ongoing challenges. For example, even within graduate school programs, as Henggeler (1999, 8) points out, “training often includes considerable attention to treatment models that have no empirical support.” Blumstein and Petersilia (1995, 470) note the skepticism toward research among practitioners and policymakers—skepticism fueled at least in part by the failure of researchers to construct knowledge that is useful to the delivery of services. Similarly,

Gendreau and Goggin (1997) report that only a minority of correctional agencies—perhaps as few as 1 in 10—function in such a way as to satisfactorily deliver effective treatment programs (see also Gendreau, Goggin, and Smith 1999). Using the Correctional Program Assessment Inventory to study agencies comprehensively, Gendreau and Goggin (1997) identified such common deficiencies as: employing program directors and staff that have little professional training or knowledge about effective treatment programs; the failure to assess offenders with scientifically based actuarial risk instruments; the targeting of factors (e.g., low self-esteem) for change that are weakly related to or unrelated to recidivism; the use of treatments that were “inappropriate” or delivered with insufficient “dosage” or “intensity”; the failure to include aftercare in the treatment; and a general lack of therapeutic integrity.

Given this roster of disquieting shortcomings, skeptics might suggest that the barriers to constructing, disseminating, and applying evidence on correctional treatment are not merely formidable but insurmountable. We share the skeptics’ caution but not their pessimism. There are, for example, effective ways of disseminating knowledge (Backer, Liberman, and Kuehnel 1986; Gendreau 1996a) and of achieving planned change in organizations (Hamm and Schrink 1989; Welsh and Harris 1999). Further, many correctional agencies are receptive to learning about “what works” and wish to implement the “best bets” for successful intervention (Rhine 1998). The intense interest in MST nationwide is but one example of this receptivity (Henggeler 1999). There also is an increasing demand for correctional programs to be accountable and effective, lest the taxpayers’ money be squandered. Finally, the limits of control-oriented programs now are hard to dispute. If evidence-based rehabilitation programs are not to be embraced, it is difficult to know what the alternative would be.

Reaffirming rehabilitation

To a large extent, the prospects for an evidence-based form of corrections will depend on the view that rehabilitation should be reaffirmed as a central goal of the correctional enterprise, if for no other reason than it would seem inadvisable to invest resources in improving something—treatment programs—that one does not value. This is not the place to present the full debate about whether rehabilitation should be a guiding principle of corrections (compare Cullen and Applegate 1997; Cullen and Gendreau 1989; Cullen and Gilbert 1982; Macallair 1993; Welch 1995 with Logan and Gaes 1993). Even so, there are two considerations that warrant attention.

First, as Van Voorhis (1987) reminds us, there is a “high cost to ignoring rehabilitation.” Beyond whatever prevention of crime that may accrue from incapacitation and general deterrence—an issue that is both complex and debatable

(see, e.g., Currie 1998; MacKenzie 1998; Nagin 1998)—there is no evidence that punitive correctional programs either reduce recidivism or produce other positive gains for offenders (e.g., institutional adjustment, development of human capital). In contrast, our “best bet” for reducing recidivism and improving the lives of those processed through the correctional system is to involve them in rehabilitation programs that have therapeutic integrity. This approach is not simply a matter of “doing good” for offenders but also of protecting public safety. Put in other terms, rehabilitation is a potentially important strategy for reducing recidivism and thus for preventing the victimization of citizens. The failure to pursue correctional treatment is tantamount to turning a blind eye to those among us whose victimization could have been avoided.

Second, it is commonly asserted that the American public is punitive and, by implication, that citizens will not support the rehabilitation of offenders. This thesis is only half right. Opinion polls do show that the public is punitive; however, surveys also demonstrate that Americans do not wish to have a correctional system whose *only* aim is to inflict “penal harm” or to warehouse offenders. The evidence is now virtually indisputable that citizens favor a correctional system that both punishes *and* rehabilitates (Applegate, Cullen, and Fisher 1997; Flanagan and Longmire 1996; for a review of the relevant research, see Cullen, Fisher, and Applegate 2000). For example, Applegate, Cullen, and Fisher (1997) found in a statewide survey of Ohio residents that more than 80 percent of the respondents agreed that “rehabilitation” was an “important” or “very important” goal of imprisonment. Accordingly, it appears that the American public is receptive to correctional rehabilitation—a level of support that potentially would solidify, if not grow, were intervention programs conducted more effectively.

In closing, it is well to keep in mind that people’s futures are not wholly determined but, at least in part, are chosen (Cullen and Wright 1996; Sherman and Hawkins 1981). The chance to move in a different direction is perhaps more possible at the beginning of a new century when time seems to pause and we are struck by the wisdom of taking stock in where we have been and where we are going. For three decades, we have experimented with a correctional system that has decidedly tilted in the direction of “getting tougher.” Rehabilitation programs have not been eliminated wholesale, relevant evaluation research has not stopped, and much of the public continues to endorse the goal of offender reformation. Still, advocates of correctional rehabilitation have faced an uphill struggle as the “nothing works” doctrine took hold and the political winds swept in an unfriendly direction.

The question we are confronted with, then, is: What future will be chosen for corrections? A century ago, the progressives, recognizing that the possibility for

reform was at hand, embraced a “new penology” that had at its core the rehabilitative ideal. Their unrestrained optimism about rehabilitation undoubtedly was misplaced; they underestimated the difficulty of changing human behavior within the confines of corrections and with techniques that had little basis in empirical social science. Today, we are perhaps more sober about the prospects of treating offenders, but we also are better informed about how to undertake this task effectively. Like our predecessors, then, we believe that the new century offers a propitious moment to fashion a new penology—albeit, with ours being more cautiously expressed and evidence based—that is informed by the rehabilitative ideal. The alternative prospect—to do more of the same, to argue that offenders cannot change, to get tougher and tougher—seems an uninviting future to contemplate. By contrast, reaffirming rehabilitation strikes us as a wiser and, we suspect, happier course to follow.

References

- Adams, Stuart. 1976. Evaluation: A way out of rhetoric. In *Rehabilitation, recidivism, and research*, edited by Robert Martinson, Ted Palmer, and Stuart Adams. Hackensack, New Jersey: National Council on Crime and Delinquency.
- Allen, Francis A. 1981. *The decline of the rehabilitative ideal: Penal policy and social purpose*. New Haven: Yale University Press.
- . 1964. *The borderland of criminal justice: Essays in law and criminology*. Chicago: University of Chicago Press.
- Andrews, D.A. 1995. The psychology of criminal conduct and effective treatment, In *What works: Reducing reoffending*, edited by James McGuire. West Sussex, England: John Wiley & Sons.
- Andrews, D.A., and James Bonta. 1998. *The psychology of criminal conduct*. 2d ed. Cincinnati: Anderson Publishing Company.
- Andrews, D.A., Craig Dowden, and Paul Gendreau. 1999. Clinically relevant and psychologically informed approaches to reduced re-offending: A meta-analytic study of human service, risk, need, responsivity, and other concerns in justice contexts. Unpublished manuscript, Carleton University.
- Andrews, D.A., and R.D. Hoge. 1995. The psychology of criminal conduct and principles of effective prevention and rehabilitation. *Forum on Corrections Research* 7 (1): 34–36.
- Andrews, D.A., J.J. Kiessling, Dave Robinson, and Susan Mickus. 1986. The risk principle of case classification: An outcome evaluation with young adult probationers. *Canadian Journal of Criminology* 28 (4): 377–384.

Andrews, D.A., Ivan Zinger, Robert D. Hoge, James Bonta, Paul Gendreau, and Francis T. Cullen. 1990. Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology* 28 (August): 369–404.

Antonowicz, Daniel H., and Robert R. Ross. 1994. Essential components of successful rehabilitation programs for offenders. *International Journal of Offender and Comparative Criminology* 38 (2): 97–104.

Aos, Steve, Polly Phipps, Robert Barnoski, and Roxanne Lieb. 1999. *The comparative costs and benefits of programs to reduce crime: A review of national research findings with implications for Washington State*. Olympia: Washington State Institute for Public Safety.

Applegate, Brandon K., Francis T. Cullen, and Bonnie S. Fisher. Forthcoming. Forgiveness and fundamentalism: Reconsidering the relationship between correctional attitudes and religion. *Criminology*.

———. 1997. Public support for correctional treatment: The continuing appeal of the rehabilitative ideal. *Prison Journal* 77 (September): 237–258.

Backer, Thomas E., Robert Paul Liberman, and Timothy G. Kuehnel. 1986. Dissemination and adoption of innovative psychosocial interventions. *Journal of Clinical and Consulting Psychology* 54 (1): 111–118.

Bailey, Walter C. 1966. Correctional outcome: An evaluation of 100 reports. *Journal of Criminal Law, Criminology, and Police Science* 57 (2): 153–160.

Bennett, William J., John J. DiIulio, Jr., and James P. Walters. 1996. *Body count: Moral poverty . . . and how to win America's war against crime and drugs*. New York: Simon & Schuster.

Berleman, William C., and Thomas W. Steinburn. 1969. The value and validity of delinquency prevention experiments. *Crime & Delinquency* 15 (October): 471–478.

Binder, Arnold, and Gilbert Geis. 1984. *Ad populum* argumentation in criminology: Juvenile diversion as rhetoric. *Crime & Delinquency* 30 (October): 624–647.

Blumstein, Alfred. 1997. Interaction of criminological research and public policy. *Journal of Quantitative Criminology* 12 (4): 349–361.

Blumstein, Alfred, and Joan Petersilia. 1995. Investing in criminal justice research. In *Crime*, edited by James Q. Wilson and Joan Petersilia. San Francisco: ICS Press.

Bonta, James. 1996. Risk-needs assessment and treatment. In *Choosing correctional interventions that work: Defining the demand and evaluating the supply*, edited by Alan T. Harland. Thousand Oaks, California: Sage Publications.

- Bonta, James, and Paul Gendreau. 1991. Coping with prison. In *Psychology and social policy*, edited by Peter Suedfeld and Philip E. Tetlock. New York: Hemisphere.
- . 1990. Re-examining the cruel and unusual punishment of prison life. *Law and Human Behavior* 14 (August): 347–372.
- Borduin, Charles M., Barton J. Mann, Lynn T. Cone, Scott W. Henggeler, Bethany R. Fucci, David M. Blaske, and Robert A. Williams. 1995. Multi-systemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology* 63 (4): 569–578.
- Brockway, Zebulon R. 1871. The ideal of a true prison system for a state. In *Transactions of the National Congress on Penitentiary and Reformatory Discipline*, edited by E.C. Wines. Albany, New York: Weed, Parsons & Company.
- Brown, Tamara L., Scott W. Henggeler, Sonja K. Schoenwald, Michael J. Brondino, and Susan G. Pickrel. 1999. Multisystemic treatment of substance abusing and dependent juvenile delinquents: Effects on school attendance at posttreatment and 6-month follow-up. *Children's Services: Social Policy, Research, and Practice* 2 (2): 81–93.
- Clear, Todd R. 1994. *Harm in American penology: Offenders, victims, and their communities*. Albany: State University of New York Press.
- Cleland, Charles M., Frank S. Pearson, Douglas S. Lipton, and Dorline Yee. 1997. Does age make a difference? A meta-analytic approach to reductions in criminal offending for juveniles and adults. Paper presented at the 1997 Annual Meeting of the American Society of Criminology, 21 November, San Diego.
- Cohen, Mark A. 1998. The monetary value of saving a high-risk youth. *Journal of Quantitative Criminology* 14 (1): 5–32.
- Cole, Stephen. 1975. The growth of scientific knowledge: Theories of deviance as a case study. In *The idea of social structure: Papers in honor of Robert K. Merton*, edited by Lewis A. Coser. New York: Harcourt Brace Jovanovich.
- Colvin, Mark. 1997. *Penitentiaries, reformatories, and chain gangs: Social theory and the history of punishment in nineteenth-century America*. New York: St. Martin's Press.
- Conrad, John P. 1981. Where there's hope there's life. In *Justice as fairness: Perspectives of the justice model*, edited by David Fogel and Joe Hudson. Cincinnati: Anderson Publishing Company.
- Cousineau, F. Douglas, and Darryl B. Plecas. 1982. Justifying criminal justice policy with methodologically inadequate research. *Canadian Journal of Criminology* 24 (July): 307–321.
- Cressey, Donald R. 1958. The nature and effectiveness of correctional techniques. *Law and Contemporary Problems* 23 (Autumn): 754–771.

Cullen, Francis T., and Brandon Applegate, eds. 1997. *Offender rehabilitation: Effective correctional intervention*. Aldershot, England: Ashgate/Dartmouth.

Cullen, Francis T., Bonnie S. Fisher, and Brandon K. Applegate. 2000. Public opinion about punishment and corrections. In *Crime and justice: A review of research*, edited by Michael Tonry. Vol. 27. Chicago: University of Chicago Press.

Cullen, Francis T., and Paul Gendreau. 1989. The effectiveness of correctional treatment: Reconsidering the “nothing works” debate. In *The American prison: Issues in research and policy*, edited by Lynne Goodstein and Doris L. MacKenzie. New York: Plenum Press.

Cullen, Francis T., Paul Gendreau, G. Roger Jarjoura, and John Paul Wright. 1997. Crime and the bell curve: Lessons from intelligent criminology. *Crime & Delinquency* 43 (October): 387–411.

Cullen, Francis T., and Karen E. Gilbert. 1982. *Reaffirming rehabilitation*. Cincinnati: Anderson Publishing Company.

Cullen, Francis T., Jody L. Sundt, and John F. Wozniak. Forthcoming. The virtuous prison: Toward a restorative rehabilitation. In *Contemporary issues in crime and criminal justice*, edited by Henry N. Pontell and David Shichor. Upper Saddle River, New Jersey: Prentice Hall.

Cullen, Francis T., and John Paul Wright. 1996. Two futures for American corrections. In *The past, present, and future of American criminal justice*, edited by Brendan Maguire and Polly F. Radosh. Dix Hills, New York: General Hall.

Cullen, Francis T., John Paul Wright, and Brandon K. Applegate. 1996. Control in the community: The limits of reform? In *Choosing correctional options that work: Defining the demand and evaluating the supply*, edited by Alan T. Harland. Newbury Park, California: Sage Publications.

Currie, Elliott. 1998. *Crime and punishment in America*. New York: Metropolitan Books.

de Beaumont, Gustave, and Alexis de Tocqueville. [1833] 1964. *On the penitentiary system in the United States and its application in France*. Reprint. Carbondale: Southern Illinois University Press.

DiIulio, John J., Jr. 1987. *Governing prisons: A comparative study of correctional management*. New York: Free Press.

DiIulio, John J., Jr., and Anne Morrison Piehl. 1991. Does prison pay? *Brookings Review* 9 (Fall): 28–35.

Ditton, Paula M., and Doris James Wilson. 1999. *Truth in sentencing in State prisons*. NCJ 170032. Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.

- Dowden, Craig, and D.A. Andrews. 1999. What works for female offenders: A meta-analysis. *Crime & Delinquency* 45 (October): 438–452.
- Emery, Robert E., and David Marholin II. 1977. An applied behavior analysis of delinquency: The irrelevancy of relevant behavior. *American Psychologist* 32 (October): 860–873.
- England, Ralph W., Jr. 1965. Ideologies and corrections. *Prison Journal* 45 (Autumn/Winter): 17–22.
- Erwin, Billie J. 1986. Turning up the heat on probationers in Georgia. *Federal Probation* 50 (June): 17–24.
- Fienberg, Stephen, and Patricia Grambsch. 1979. An assessment of the accuracy of *The effectiveness of correctional treatment*. Appendix of *The rehabilitation of criminal offenders: Problems and prospects*, edited by Lee Sechrest, Susan O. White, and Elizabeth D. Brown. Washington, D.C.: National Academy of Sciences.
- Finckenauer, James O., and Patricia W. Gavin. 1999. *Scared straight: The panacea phenomenon revisited*. Prospect Heights, Illinois: Waveland Press.
- Fishman, Robert. 1977. An evaluation of criminal recidivism in projects providing rehabilitation and diversion services in New York City. *Journal of Criminal Law and Criminology* 68 (2): 283–305.
- Flanagan, Timothy J., and Dennis R. Longmire, eds. 1996. *Americans view crime and justice: A national public opinion survey*. Thousand Oaks, California: Sage Publications.
- Fogel, David. 1979. *We are the living proof: The justice model for corrections*. 2d ed. Cincinnati: Anderson Publishing Company.
- Foucault, Michel. 1977. *Discipline and punish: The birth of the prison*. New York: Pantheon Books.
- Fulton, Betsy, Edward J. Latessa, Amy Stichman, and Lawrence F. Travis III. 1997. The state of ISP: Research and policy implications. *Federal Probation* 61 (December): 65–75.
- Gaes, Gerald G. 1998. Correctional treatment. In *The handbook of crime and punishment*, edited by Michael Tonry. New York: Oxford University Press.
- Gaes, Gerald G., Timothy J. Flanagan, Larry Motiuk, and Lynn Stewart. 1999. Adult correctional treatment. In *Crime and justice: A review of research*, edited by Michael Tonry. Vol. 26. Chicago: University of Chicago Press.
- Garland, David. 1990. *Punishment and modern society: A study in social theory*. Chicago: University of Chicago Press.

Gendreau, Paul. 1999. Rational policies for reforming offenders. *ICCA Journal on Community Corrections* 9 (May): 16–20.

———. 1996a. Offender rehabilitation: What we know and what needs to be done. *Criminal Justice and Behavior* 23 (March): 144–161.

———. 1996b. The principles of effective intervention with offenders. In *Choosing correctional options that work: Defining the demand and evaluating the supply*, edited by Alan T. Harland. Newbury Park, California: Sage Publications.

———. 1989. Programs that do not work: A brief comment on Brodeur and Doob. *Canadian Journal of Criminology* 31 (April): 133–135.

Gendreau, Paul, and D.A. Andrews. 1990. Tertiary prevention: What the meta-analyses of the offender treatment literature tell us about “what works.” *Canadian Journal of Criminology* 32 (January): 173–184.

Gendreau, Paul, Francis T. Cullen, and James Bonta. 1994. Intensive rehabilitation supervision: The next generation in community corrections? *Federal Probation* 58 (March): 72–78.

Gendreau, Paul, and Claire Goggin. 1997. Correctional treatment: Accomplishments and realities. In *Correctional counseling and rehabilitation*, edited by Patricia Van Voorhis, Michael Braswell, and David Lester. Cincinnati: Anderson Publishing Company.

———. 1996. Principles of effective correctional programming. *Forum on Corrections Research* 8 (3): 38–41.

Gendreau, Paul, Claire Goggin, and Francis T. Cullen. 1999. *The effects of prison sentences on recidivism*. Cat. no. J42–87/1999E. Ottawa, Ontario: Public Works and Government Services Canada.

Gendreau, Paul, Claire Goggin, Francis T. Cullen, and D.A. Andrews. 1999. Getting tough on offenders: Does it work? Unpublished manuscript, Centre for Criminal Justice Studies, University of New Brunswick at Saint John.

Gendreau, Paul, Claire Goggin, and Betsy Fulton. 2000. Intensive supervision in probation and parole. In *Handbook of offender assessment and treatment*, edited by Clive R. Hollin. London: John Wiley & Sons CTD.

Gendreau, Paul, Claire Goggin, and Mario Papanozzi. 1996. Principles of effective assessment for community corrections. *Federal Probation* 60 (September): 64–70.

Gendreau, Paul, Claire Goggin, and Paula Smith. 1999. The forgotten issue in effective correctional treatment: Program evaluation. *International Journal of Offender Therapy and Comparative Criminology* 43 (2): 180–187.

Gendreau, Paul, Tracy Little, and Claire Goggin. 1996. A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology* 34 (November): 575–607.

- Gendreau, Paul, Mario Paparozzi, Tracy Little, and Murray Goddard. 1993. Does "punishing smarter" work? An assessment of the new generation of alternative sanctions in probation. *Forum on Corrections Research* 5 (3): 31–34.
- Gendreau, Paul, and Robert R. Ross. 1987. Revivification of rehabilitation: Evidence from the 1980s. *Justice Quarterly* 4 (September): 349–407.
- . 1983–1984. Correctional treatment: Some recommendations for effective intervention. *Juvenile and Family Court Journal* 34 (Winter): 31–39.
- . 1981. Correctional potency: Treatment and deterrence on trial. In *Evaluation and criminal justice policy*, edited by Ronald Roesch and Ray R. Corrado. Beverly Hills: Sage Publications.
- . 1979. Effective correctional treatment: Bibliotherapy for cynics. *Crime & Delinquency* 25 (October): 463–489.
- Gendreau, Paul, Paula Smith, and Claire Goggin. Forthcoming. The contribution of meta-analysis to an understanding about what works in correctional programs: What are effect sizes and how to use them. In *Compendium of what works in offender programming*, edited by Research Department, Correctional Services of Canada. Vol. 3. Ottawa: Correctional Services of Canada.
- Gerber, Jurg, and Eric J. Fritsch. 1995. Adult academic and vocational correctional education programs: A review of recent research. *Journal of Offender Rehabilitation* 22 (1/2): 119–142.
- Gibbons, Don C. 1999. Review essay: Changing lawbreakers—What have we learned since the 1950s? *Crime & Delinquency* 45 (April): 272–293.
- Gilliard, Darrell K. 1999. *Prison and jail inmates at midyear 1998*. NCJ 173414. Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.
- Glaser, Daniel. 1965. Correctional research: An elusive paradise. *Journal of Research in Crime and Delinquency* 2 (January): 1–11.
- Gold, Martin. 1974. A time for skepticism. *Crime & Delinquency* 20 (January): 20–24.
- Gottfredson, Michael R. 1979. Treatment destruction techniques. *Journal of Research in Crime and Delinquency* (January): 39–54.
- Greenberg, David F. 1977. The correctional effects of corrections: A survey of evaluations. In *Corrections and punishment*, edited by David F. Greenberg. Beverly Hills: Sage Publications.
- Greenwood, Peter W., Karyn E. Model, C. Peter Rydell, and James Chiesa. 1996. *Diverting children from a life in crime: Measuring costs and benefits*. Santa Monica, California: RAND.

Hamm, Mark S., and Jeffrey L. Schrink. 1989. The conditions of effective implementation: A guide to accomplishing rehabilitative objectives in corrections. *Criminal Justice and Behavior* 16 (June): 166–182.

Henggeler, Scott W. 1999. Multisystemic therapy: An overview of clinical procedures, outcomes, and policy implications. *Child Psychology and Psychiatry* 4 (1): 2–10.

———. 1997. *Treating serious anti-social behavior in youth: The MST approach*. NCJ 165151. Washington, D.C.: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.

Henggeler, Scott W., Gary B. Melton, Michael J. Brondino, David G. Scherer, and Jerome H. Hanley. 1997. Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. *Journal of Consulting and Clinical Psychology* 65 (5): 821–833.

Henggeler, Scott W., Susan G. Pickrel, and Michael J. Brondino. Forthcoming. Multisystemic treatment of substance abusing and dependent delinquents: Outcomes, treatment fidelity, and transportability. *Mental Health Services Research* 1 (3): 171–184.

Henggeler, Scott W., Sonja K. Schoenwald, Charles M. Borduin, Melisa D. Rowland, and Phillippe B. Cunningham. 1998. *Multisystemic treatment of antisocial behavior in children and adolescents*. New York: Guilford Publications.

Hunt, Morton. 1997. *How science takes stock: The story of meta-analysis*. New York: Russell Sage Foundation.

Ignatieff, Michael. 1981. State, civil society, and total institutions: A critique of recent social histories of punishment. In *Crime and justice: An annual review of research*, edited by Michael Tonry and Norval Morris. Vol. 3. Chicago: University of Chicago Press.

Irwin, John. 1980. *Prisons in turmoil*. Boston: Little, Brown and Company.

Kassebaum, Gene, David A. Ward, and Daniel M. Wilner. 1971. *Prison treatment and parole survival: An empirical assessment*. New York: John Wiley & Sons.

Kirby, Bernard C. 1954. Measuring effects of treatment of criminals and delinquents. *Sociology and Social Research* 38 (July–August): 368–374.

Klockars, Carl B. 1975. The true limits of the effectiveness of correctional treatment. *The Prison Journal* 55 (Spring–Summer): 53–64.

Kuhn, Thomas S. 1962. *The structure of scientific revolutions*. Chicago: University of Chicago Press.

Lab, Steven P. 1997. *Crime prevention: Approaches, practices, and evaluations*. 3d ed. Cincinnati: Anderson Publishing Company.

- Lester, David, and Patricia Van Voorhis. 1997. Cognitive therapies. In *Correctional counseling and rehabilitation*, edited by Patricia Van Voorhis, Michael Braswell, and David Lester. Cincinnati: Anderson Publishing Company.
- Lipset, Seymour Martin, and William Schneider. 1983. *The confidence gap: Business, labor, and government in the public mind*. New York: Free Press.
- Lipsey, Mark W. 1999. Can rehabilitative programs reduce the recidivism of juvenile offenders? An inquiry into the effectiveness of practical programs. *Virginia Journal of Social Policy and Law* 6 (Spring): 611–641.
- . 1995. What do we learn from 400 research studies on the effectiveness of treatment with juvenile delinquency? In *What works: Reducing reoffending*, edited by James McGuire. West Sussex, England: John Wiley & Sons.
- . 1992. Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In *Meta-analysis for explanation: A casebook*, edited by Thomas D. Cook, Harris Cooper, David S. Cordray, Heidi Hartmann, Larry V. Hedges, Richard J. Light, Thomas A. Lewis, and Frederick Mosteller. New York: Russell Sage Foundation.
- . 1984. Is delinquency prevention a cost-effective strategy? A California perspective. *Journal of Research in Crime and Delinquency* 21 (November): 279–302.
- Lipsey, Mark W., and David B. Wilson. 1998. Effective interventions for serious juvenile offenders: A synthesis of research. In *Serious and violent juvenile offenders: Risk factors and successful interventions*, edited by Rolf Loeber and David P. Farrington. Thousand Oaks, California: Sage Publications.
- . 1993. The efficacy of psychological, educational, and behavioral treatment. *American Psychologist* 48 (12): 1181–1209.
- Lipton, Douglas, Robert Martinson, and Judith Wilks. 1975. *The effectiveness of correctional treatment: A survey of treatment evaluation studies*. New York: Praeger.
- Logan, Charles H. 1972. Evaluation research in crime and delinquency: A reappraisal. *Journal of Criminal Law, Criminology, and Police Science* 63 (September): 378–387.
- Logan, Charles H., and Gerald Gaes. 1993. Meta-analysis and the rehabilitation of punishment. *Justice Quarterly* 10 (June): 245–263.
- Losel, Friedrich. 1995. The efficacy of correctional treatment: A review and synthesis of meta-evaluations. In *What works: reducing reoffending*, edited by James McGuire. West Sussex, England: John Wiley & Sons.
- Lundman, Richard J., and Frank R. Scarpitti. 1978. Delinquency prevention: Recommendations for future projects. *Crime & Delinquency* 24 (April): 207–220.

Macallair, Robert. 1993. Reaffirming rehabilitation in juvenile justice. *Youth and Society* 25 (September): 104–125.

MacKenzie, Doris Layton. 1997. Criminal justice and crime prevention. In *Preventing crime: What works, what doesn't, what's promising*, edited by Lawrence W. Sherman, Denise Gottfredson, Doris MacKenzie, John Eck, Peter Reuter, and Shawn Bushway. Research Report. NCJ 165366. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.

MacKenzie, Doris Layton, and James Shaw. 1993. The impact of shock incarceration on technical violations and new criminal activities. *Justice Quarterly* 10 (September): 453–477.

Martinson, Robert. 1979. New findings, new views: A note of caution regarding sentencing reform. *Hofstra Law Review* 7 (Winter): 243–258.

———. 1976a. California research at the crossroads. In *Rehabilitation, recidivism, and research*, edited by Robert Martinson, Ted Palmer, and Stuart Adams. Hackensack, New Jersey: National Council on Crime and Delinquency.

———. 1976b. Evaluation in crisis—A postscript. In *Rehabilitation, recidivism, and research*, edited by Robert Martinson, Ted Palmer, and Stuart Adams. Hackensack, New Jersey: National Council on Crime and Delinquency.

———. 1974a. Viewpoint. *Criminal Justice Newsletter* 5 (November 18): 4–5.

———. 1974b. What works?—Questions and answers about prison reform. *The Public Interest* 35 (Spring): 22–54.

Masters, John C., Thomas G. Burish, Steven D. Hollon, and David C. Rimm. 1987. *Behavior therapy: Techniques and empirical findings*. San Diego: Harcourt Brace Jovanovich.

McGee, Richard A. 1969. What's past is prologue. *Annals of the American Academy of Political and Social Science* 381 (January): 1–10.

McGuire, James, and Philip Priestley. 1995. Reviewing “what works”: Past, present, and future. In *What works: Reducing reoffending*, edited by James McGuire. West Sussex, England: John Wiley & Sons.

McKelvey, Blake. 1977. *American prisons: A history of good intentions*. Montclair, New Jersey: Patterson Smith.

Menninger, Karl. 1968. *The crime of punishment*. New York: Penguin.

Morris, Norval. 1974. *The future of imprisonment*. Chicago: University of Chicago Press.

Murray, Charles A., and Louis A. Cox, Jr. 1979. *Beyond probation: Juvenile corrections and the chronic delinquent*. Beverly Hills: Sage Publications.

- Nagin, Daniel S. 1998. Deterrence and incapacitation. In *The handbook of crime and punishment*, edited by Michael Tonry. New York: Oxford University Press.
- Niebuhr, Gustav. 1998. Using religion to reform criminals. *New York Times*, 18 January: Section 1.
- Orwin, Robert G. 1983. A fail-safe N for effect size in meta-analysis. *Journal of Educational Statistics* 8 (Summer): 157–159.
- Palmer, Ted. 1995. Programmatic and nonprogrammatic aspects of successful intervention: New directions for research. *Crime & Delinquency* 41 (January): 100–131.
- . 1992. *The re-emergence of correctional intervention*. Newbury Park, California: Sage Publications.
- . 1975. Martinson revisited. *Journal of Research in Crime and Delinquency* 12 (July): 133–152.
- Patterson, James T. 1996. *Grand expectations: The United States, 1945–1974*. New York: Oxford University Press.
- Pearson, Frank S., Douglas S. Lipton, and Charles M. Cleland. 1996. Some preliminary findings from the CDATE project. Paper presented at the 1996 Annual Meeting of the American Society of Criminology, 20 November, Chicago.
- Petersilia, Joan, and Susan Turner. 1993. Intensive probation and parole. In *Crime and justice: A review of research*, edited by Michael Tonry. Vol. 17. Chicago: University of Chicago Press.
- Piehl, Anne Morrison, and John J. DiIulio, Jr. “Does prison pay?” revisited: Returning to the crime scene. *Brookings Review* 13 (Winter): 21–25.
- Prendergast, Michael L., M. Douglas Anglin, and Jean Wellisch. 1995. Treatment for drug-abusing offenders under community supervision. *Federal Probation* 59 (December): 66–75.
- Quay, Herbert C. 1977. The three faces of evaluation: What can be expected to work. *Criminal Justice and Behavior* 4 (December): 341–354.
- Redondo, Santiago, Julio Sanchez-Meca, and Vincente Garrido. 1999. The influence of treatment programs on the recidivism of juvenile and adult offenders: An European meta-analytic review. *Psychology, Crime, and Law* 5 (3): 251–278.
- Rezmovic, Eva Lantos. 1979. Methodological considerations in evaluating correctional effectiveness: Issues and chronic problems. In *The rehabilitation of criminal offenders: Problems and prospects*, edited by Lee Sechrest, Susan O. White, and Elizabeth D. Brown. Washington, D.C.: National Academy of Sciences.

- Rhine, Edward E., ed. 1998. *Best practices: Excellence in corrections*. Lanham, Maryland: American Correctional Association.
- Robison, James, and Gerald Smith. 1971. The effectiveness of correctional programs. *Crime & Delinquency* 17 (January): 67–80.
- Rosenthal, Robert. 1991. *Meta-analytic procedures for social research*. Newbury Park, California: Sage Publications.
- Rosnow, Ralph L., and Robert Rosenthal. 1993. *Beginning behavioral research*. New York: Macmillan.
- Ross, Robert R., Daniel H. Antonowicz, and Gurmeet K. Dhaliwal. 1995. *Going straight: Effective delinquency prevention and offender rehabilitation*. Ottawa: Air Training and Publications.
- Ross, Robert R., and Paul Gendreau, eds. 1980. *Effective correctional treatment*. Toronto: Butterworths.
- Rothman, David J. 1980. *Conscience and convenience: The asylum and its alternatives in progressive America*. Boston: Little, Brown and Company.
- . 1971. *Discovery of the asylum: Social order and disorder in the new republic*. Boston: Little, Brown and Company.
- Rotman, Edgardo. 1995. The failure of reform: United States, 1865–1965. In *The Oxford history of prison: The practice of punishment in Western society*, edited by Norval Morris and David J. Rothman. New York: Oxford University Press.
- . 1990. *Beyond punishment: A new view on the rehabilitation of offenders*. New York: Greenwood Press.
- Schmidt, Frank. 1996. Statistical significance testing and cumulative knowledge in psychology: Implications for training of researchers. *Psychological Methods* 1 (2): 115–129.
- Schoenwald, Sonja K., Tamara L. Brown, and Scott W. Henggeler. 1999. Inside multisystemic therapy: Therapist, supervisory, and program practices. Unpublished manuscript, Medical University of South Carolina.
- Schoenwald, Sonja K., David M. Ward, Scott W. Henggeler, and Melisa D. Rowland. 1999. MST vs. hospitalization for crisis stabilization of youth: Placement outcomes 4 months post-referral. *Mental Health Services Research* 1 (3): 171–184.
- Science*. 1994. Can meta-analysis make policy? 266 (11 November): 960–962.
- Sechrest, Lee, Susan O. White, and Elizabeth D. Brown, eds. 1979. *The rehabilitation of criminal offenders: Problems and prospects*. Washington, D.C.: National Academy of Sciences.

- Sherman, Lawrence J. 1998. *Evidence-based policing*. Washington, D.C.: Police Foundation.
- Sherman, Michael, and Gordon Hawkins. 1981. *Imprisonment in America: Choosing the future*. Chicago: University of Chicago Press.
- Shichor, David, and Dale K. Sechrest, eds. 1996. *Three strikes and you're out: Vengeance as public policy*. Thousand Oaks, California: Sage Publications.
- Spiegler, Michael D., and David C. Guevremont. 1998. *Contemporary behavior therapy*. 3d ed. Pacific Grove, California: Brooks/Cole Publishing Company.
- Sykes, Gresham M. 1958. *Society of captives: A study of a maximum security prison*. Princeton, New Jersey: Princeton University Press.
- Task Force on Corrections, President's Commission on Law Enforcement and Administration of Justice. 1967. *Task force report: Corrections*. Washington, D.C.: U.S. Government Printing Office.
- Toby, Jackson. 1964. Is punishment necessary? *Journal of Criminal Law, Criminology, and Police Science* 55 (September): 332–337.
- Useem, Bert, and Peter Kimball. 1991. *States of siege: U.S. prison riots, 1971–1986*. New York: Oxford University Press.
- Van Voorhis, Patricia. 1987. Correctional effectiveness: The high cost of ignoring success. *Federal Probation* 51 (March): 59–62.
- Warren, Margaret Q. 1969. The case for differential treatment of delinquents. *Annals of the American Academy of Political and Social Sciences* 62 (January): 239–258.
- Welch, Michael. 1995. Rehabilitation: Holding its ground in corrections. *Federal Probation* 59 (December): 3–8.
- Welsh, Wayne N., and Philip W. Harris. 1999. *Criminal justice policy and planning*. Cincinnati: Anderson Publishing Company.
- Whitehead, John T., and Steven P. Lab. 1989. A meta-analysis of juvenile correctional treatment. *Journal of Research in Crime and Delinquency* 26 (August): 276–295.
- Wilks, Judith, and Robert Martinson. 1976. Is the treatment of criminal offenders really necessary? *Federal Probation* 40:3–8.
- Wines, E.C., ed. 1871. Declaration of principles adopted and promulgated by the congress. In *Transactions of the National Congress on Penitentiary and Reformatory Discipline*. Albany, New York: Weed Parsons & Company.

Wooton, Barbara. 1959. *Social science and social pathology*. London: George Allen and Unwin.

Wright, William F., and Michael C. Dixon. 1977. Community prevention and treatment of juvenile delinquency. *Journal of Research in Crime and Delinquency* 14 (January): 35–67.

Zimring, Franklin E., and Gordon Hawkins. 1995. *Incapacitation: Penal confinement and the restraint of crime*. New York: Oxford University Press.