

PSYCHOLOGY AND THE CRIMINAL LAW†

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THE two opposite errors a lawyer may make in evaluating the social scientist's contribution to law are to be overly critical and hostile, or to be unduly impressed and uncritically receptive. I have seen examples of both mistakes. The extreme form of the first attitude is shown by the lawyer who frankly believes that psychology, psychiatry, and sociology are mostly "baloney," pretentious disciplines which have abandoned common-sense knowledge of human life¹ but whose claim to have substituted scientific knowledge is spurious. I would like to believe that this hostile attitude is always based upon misinformation or ignorance; but unfortunately, if I am honest with myself, I must admit that *sometimes* lawyers feel this way in spite of their being knowledgeable. Thus, for example, the late Harlan Goulett, by whom I had the dubious pleasure of being cross-examined in a murder case when he was assistant county attorney, took a dim view of the scientific status of psychiatry in his excellent book *The Insanity Defense in Criminal Trials*; and he was able to document his cynicism by quoting cloudy, tendentious, and incompetent remarks from textbooks, articles, and trial transcripts. I should like to say explicitly, as a social scientist, that there are some pretty bad examples of pseudoscience in my field. It is not easy for a lawyer, no matter how fair-minded and intelligent he may be, to separate the gold from the garbage in fields like psychology, psychiatry, and sociology. Nevertheless, I must insist that we do have something to offer you, and that there are lawyers who dismiss our contribution without bothering to look into it fairly.

The opposite error, of being overly impressed and insufficiently critical, is perhaps less common; but it is on the increase and in some respects may be even more dangerous. This error was brought dramatically to my attention when I gave expert testimony in a child custody case some years ago before an extremely able and psychologically oriented judge who, I believe, was somewhat surprised when I, having been qualified as a recognized authority on a certain personality test, criticized the report of the court psychologist by pointing out that it was impossible for her (or anybody else!) to infer from the test findings many of the state-

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¹Meehl, *Law and the Fireside Inductions: Some Reflections of a Clinical Psychologist*, J. Soc. ISSUES (1970)

ments she had made. It is important that lawyers, judges and legislators be fully aware that while some branches of the social sciences are in fairly good shape, the area of personality assessment is still extremely primitive. Psychological tests are particularly seductive to a favorably disposed judge because they are expressed in numbers and can be plotted on a graph, which tends to give them a kind of “scientific” or “objective” aura which they may or may not deserve. It is unwise for those concerned with the conduct of human affairs to treat psychology and sociology as if they were scientifically on a par with internal medicine or mechanical engineering. I do not think that it is my trade-union bias that leads me to add that this caveat holds even more strongly for psychiatry, which can hardly lay any claim to being a scientific discipline at the present time.

With respect to the psychologist’s attitudes toward the law, it has been my impression that many of my brethren are characterized by a combination of ignorance and mild hostility. It distresses me that psychologists, who would not permit themselves a dogmatic opinion concerning some area of psychology outside of their competence, are often willing to make very strong evaluative statements—usually negative—about the law, even though they have had neither academic nor practical contact with it and probably could not give you an adequate definition of “tort” or “contract” or even list the four traditional functions of the criminal law. One area of conflict which is particularly cliché-ridden is in the relation between normative and factual concepts. Unfortunately many psychologists are philosophically uneducated, which makes it possible for them to say some pretty dumb things about norms and rules if they happen to have hostile attitudes toward the legal system. Example: “Social science teaches us not to pass judgment but to understand behavior,” a cliché which I have heard or read perhaps a hundred times and am beginning to find rather tiresome. It is hardly necessary to expose the fatuous character of this remark, so I will content myself with saying two things. First, the value neutrality of a descriptive science obviously gives it *no* competence to pass an “empirical” judgment on the statements of a normative discipline such as ethics, law or political theory; secondly, I have yet to find a social scientist who makes this remark and is internally consistent on this issue. For example, the same person who makes a remark like the one quoted may, in the next breath, pronounce an adverse moral judgment on prosecutors, or policemen, or members of the community who wish to see criminals severely punished. That both of these obvious undergraduate bloopers are widespread among psychologists, psychiatrists and sociologists can only be explained by some combination of emotional attitudes with inadequate philosophical education.²

² Karl Menninger objects to the lawyer’s concern for “justice,” on the ground that this concept is not considered relevant in bacteriology! I am at a loss even how to formulate such an argument for criticism. See K. MENNINGER, *THE CRIME OF PUNISHMENT* 17

I think there may be a danger of “overselling” the behavioral sciences to the legal profession, and I would hate to see us make the mistake that some psychologists made in the 1920’s when they oversold the IQ to schools and to industry, making claims which could not be substantiated and which resulted in intelligence testing—a perfectly good thing in itself—getting somewhat of a black eye among many educators and businessmen. I think it fair to say that the alleged power of psychology and psychiatry to alter the behavior of criminal offenders is an example of such overselling. Among well-educated and humanitarian citizens, there is a widespread belief that we could get rid of crime if we would hire more psychiatrists, psychologists and social workers to work in our correctional system. I am always fascinated when, on the occasion of a particularly newsworthy crime, letters to the editor fall into two distinct categories. The first kind of letter, from what might be called the “horsewhip school,” takes the view that if policemen would shoot a few more people and if capital punishment and long mandatory non-paroleable prison sentences were to be imposed, these terrible things wouldn’t happen. Opposed to this punitive group there are letters from what might be called the “bleeding heart school,” who state confidently that if the taxpayer would only shell out more money for social workers and “head-shrinkers” we could put a stop to crime. These writers are opposite in attitude; neither of them can make a rational empirical case. Naturally, as a psychologist and a humanitarian, I find myself more in sympathy with the “bleeding hearts” than with the “horse-whippers.” But as a social scientist I have to admit that, so far as the evidence goes, there is no reason to believe that hiring a thousand clinical psychologists in the state correctional system would have appreciably more effect than introducing severe penalties or improving the odds of detection and conviction. The painful fact of the matter is that *we do not know how to treat, or “cure,” or rehabilitate, or reform* criminal offenders. What scientific research there is—and there is not nearly as much as there should be—on the efficacy of either psychological or social treatment does not indicate that we have a technology of criminal prevention or reform available at the present time.³ Please understand that I am *not* saying that no criminal

(1966). May one suppose that Dr. Menninger would accept an argument that the concept “unconscious wish” is illegitimate because it is not used in metallurgy? When such egregious non sequiturs are found in psychiatric writing, it is surely no wonder that many scholars trained in the logical habits of legal thought look upon psychiatric thinking with contempt.

³ Ward & Kassebaum, *Evaluations of Correctional Treatments: Some Implications of Negative Findings*, in *LAW ENFORCEMENT SCIENCE AND TECHNOLOGY* (S. Yefsky ed. 1967); Christie, *Research into Methods of Crime Prevention*, 1 *COLLECTED STUDIES IN CRIMINOLOGICAL RESEARCH* 55 (1967); Hood, *Research on the Effectiveness of Punishments and Treatments*, 1 *COLLECTED STUDIES IN CRIMINOLOGICAL RESEARCH* 73 (1967); Lerman, *Evaluating the Outcomes of Institutions for Delinquents: Implications for Research and Social Policy*, 13 *SOCIAL WORK* 40 (1968).

For an excellent introduction to the evaluation problem by one of the most sophisticated, hard-headed, fair-minded social scientists working in the area, see L. WILKINS,

offenders refrain from further crime, or that all recidivism figures are pessimistic. That is, as you know, untrue. What I am saying is that we do not possess a powerful behavior technology for *influencing* these probabilities, except perhaps for a new approach, as yet unresearched, which I shall mention below.

Correctional practitioners, and even social scientists, sometimes apply a double standard in evaluating evidence, emphasizing the methodological inadequacies of statistical studies as to the deterrent effect of the criminal law, but not applying the same rigorous standards of scientific criticism to the evidence for social and psycho-therapeutic rehabilitative techniques. As I read the record, I am forced to agree with Professor Andenaes⁴ that, on presently available evidence, there is at least as much support for the idea that the threat of the criminal sanction deters certain classes of offenses (*e.g.*, the dramatic rise in crimes attendant upon a police strike or breakdown of law enforcement in periods of political disruptions)⁵ as there is for the prevention or cure of an individual's delinquent tendencies by social work or psychotherapy. In fact about the only evidence that has come to my attention that suggests any real efficacy of behavior-engineering is an unpublished research study by a Minnesota psychologist who has been applying the powerful behavior modification techniques relying on the work of Professor Skinner, and I am willing to go out on a limb and prophesy that effective rehabilitation lies in this direction.

One fact about psychology and psychiatry which makes the hard-headed lawyer suspicious as to their scientific claims is the existence of

EVALUATION OF PENAL MEASURES (1969), written so as to presuppose no expertise in social science methods or data. For examples of the kind of controlled research study that regularly tends to yield substantially negative results, the reader might have a look at Miller, *The Impact of a 'Total-Community' Delinquency Control Project*, 10 SOCIAL PROBLEMS 168 (1962); and—the *locus classicus* of a large-scale study whose discouraging findings are still being explained away twenty years later by social workers and psychotherapists—E. POWERS & H. WITMER, AN EXPERIMENT IN THE PREVENTION OF DELINQUENCY (1951) *But see* Witmer, *Prevention of Juvenile Delinquency*, 322 ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE (1959), a collection which, *caveat lector*, illustrates the tendency mentioned in note 14 *infra*.

⁴ Andenaes, *General Prevention—Illusion or Reality?* 43 *J. Crim. L.C. & P.S.* 176 (1952); Andenaes, *The General Preventive Effects of Punishment*, 114 *U. PA. L. REV.* 949 (1966). These should be 'must' readings for clinicians and social scientists approaching the study of criminal law. They could, having had their social science prejudices shaken up a bit by Andenaes, profitably follow with the carefully reasoned H. HART, PUNISHMENT AND RESPONSIBILITY (1968), and H. PACKER, THE LIMITS OF THE CRIMINAL SANCTION (1968), the latter providing a very helpful bibliographic note along with its informed, wise, and fair-minded analysis of this difficult problem.

⁵ *See, e.g.*, Newman, *Punishment and the Breakdown of the Legal Order: The Experience of East Pakistan*, in RESPONSIBILITY: NOMOS III (C. Friedrich ed. 1960). Indirectly relevant is the interesting "vigilante" phenomenon, the organizing of citizens' (procedurally) illegal self-help groups to enforce (substantive) law when adequate political institutions do not exist or their officials are excessively inefficient, distant, non-feasant, or corrupt. *See* H. BANCROFT, POPULAR TRIBUNALS (1887); R. BROWN, THE SOUTH CAROLINA REGULATORS (1963); A. VALENTINE, VIGILANTE JUSTICE (1956).

diverse “schools” such as Freudian, Rogerian, Sullivanian, Adlerian, and the like. I freely admit that the existence of such dogmatic schools, which often seem more like religious sects or political parties than they do like scientific investigations, is properly taken as suspicious. The lawyer approaching psychology should realize that the disagreements among these schools of thought are frequently at a deep theoretical level, so that there may be much less disagreement at the “factual” or “descriptive” level, and therefore less disagreement on practical questions involving a minimum of theory. For example, in the field of psychology known as “learning theory,” there are persisting disagreements as to the basic nature of the process called “reinforcement” [= reward, roughly] and its precise role in how organisms learn. An outsider approaching this controversial literature *de novo* might throw up his hands in disgust and say, “These psychologists can’t agree among themselves, so why should I bother with them?” But this would be a mistake. There is a sizeable body of knowledge concerning the descriptive, factual aspects of the learning process which no informed person, whatever his theoretical biases, would dispute. I, for example, am not an orthodox Skinnerian by a long shot, although I had the great privilege to study under Professor Skinner when he was at Minnesota. But I can say without fear of successful contradiction that Skinner’s approach has developed a technology of behavior-control compared to which all other schools are hardly in the running. There are well-established *factual* generalizations about such matters as the effect of various kinds of time relationships in administering rewards—known in our jargon as “reinforcement-schedules”—that hold over a variety of drives, rewards, situations, and species, and which have a demonstrated practical value in such areas as the technology of teaching. These generalizations do not hinge upon one’s “whole hog” acceptance of the Skinnerian *theoretical* framework as being adequate to explain everything about the human mind.⁶ Psychologists can provide useful information to college students

⁶ Lawyers seeking a non-technical introduction to the “Skinnerian line” should read B. SKINNER, *SCIENCE AND HUMAN BEHAVIOR* (1953). For additional references requiring varying amounts of psychological sophistication see J. HOLLAND & B. SKINNER, *THE ANALYSIS OF BEHAVIOR* (1961) (a programmed text which I recommend to busy lawyer readers seriously approaching this subject-matter for the first time); See also T. AYLLON & N. AZRIN, *THE TOKEN ECONOMY: A MOTIVATIONAL SYSTEM FOR THERAPY AND REHABILITATION* (1968); L. KRASNER & L. ULLMANN, *RESEARCH IN BEHAVIOR MODIFICATION* (1965); L. ULLMANN & L. KRASNER, *CASE STUDIES IN BEHAVIOR MODIFICATION* (1965). My own grave doubts as to the “long-run, total, theoretical adequacy” of Skinner’s program arise from my conviction that he and his followers underestimate (a) The verisimilitude in Freud’s constructions, (b) The importance of genetic factors—and resulting taxonomic entities—in behavior disorder, and (c) The complexity of language behavior. See Chomsky, Book Review, 35 *LANGUAGE* 26 (1959), and the reply of MacCorquodale, Book Review 13 *J. EXPER. ANAL. BEHAV* 83 (1970) (reviewing B. SKINNER, *VERBAL BEHAVIOR*). See also W. HONIG, *OPERANT BEHAVIOR: AREAS OF RESEARCH AND APPLICATION* (1966); B. SKINNER, *CONTINGENCIES OF REINFORCEMENT, A THEORETICAL ANALYSIS* (1969); B. SKINNER, *THE TECHNOLOGY OF TEACHING* (1968); R. ULRICH, T. STACHNIK & J. MABRY, *CONTROL*

on how to study more efficiently, we can advise the military on the selection and training of radar operators, we can design programmed textbooks and teaching machines, we can help a drug company check out new psychotropic drugs on rats and chimpanzees—all of this without having resolved some basic theoretical controversies as to the fundamental nature of learning.

Similarly, nobody knows at the present time what is the precise psychological nature or the exact causation of the mental disorder schizophrenia. There are several theories and one cannot choose among them on present evidence.⁷ But it is an established fact, not disputed by any informed person, that there is a pronounced tendency for schizophrenia to run in families. It is an established fact that patients diagnosed schizophrenia by a competent psychiatric staff will, over the long pull, have an unfavorable prognosis, with or without treatment. To take a different illness, whatever may be one's theoretical views as to the nature of a psychotic depression, it is an established fact that patients with this kind of disorder represent a major suicide risk, and that they show a favorable response to electroshock therapy, so much so that this is close to being the only "specific therapy" in the whole field of psychiatry.

One way I have tried to satisfy lawyers who are puzzled by the various competing schools of thought in psychology is to make an analogy to their own field of jurisprudence. There are "schools of thought" in jurisprudence, and the controversies among them have persisted for a very long time, as articles in contemporary law reviews attest. But these disagreements on rock-bottom questions, such as the nature of a right, or the philosophical theory of judicial decision making, are not taken by lawyers to prove that lawyers have no genuine expertise in how to write a will, or how to set up a corporation for achieving certain purposes, or how to advise a client as to whether a contemplated tort action has a good chance of collecting damages. The fact is that some areas of psychology are highly scientific and others are much less so. Those which are less so happen to be those which are more directly relevant to problems of the law. Since the expert opinion rule is practically forced upon courts as a matter of necessity (even though it is a sort of *ad verecundiam* fallacy), there is a great difficulty for the lawyer and judge, because an expert witness may act just as confident of the scientific status of his field of expertise when it is not scientifically advanced as when it actually is.

OF HUMAN BEHAVIOR (1966).

⁷ A. Buss & E. Buss, THEORIES OF SCHIZOPHRENIA (1969); I. GOTTESMAN & J. SHIELDS, SCHIZOPHRENIA AND GENETICS (1971) (in press); I. GOTTESMAN & J. SHIELDS, *In Pursuit of the Schizophrenic Genotype*, in PROGRESS IN HUMAN BEHAVIOR GENETICS (S. Vandenberg ed. 1968); D. JACKSON, THE ETIOLOGY OF SCHIZOPHRENIA (1960); S. KETY & D. ROSENTHAL, THE TRANSMISSION OF SCHIZOPHRENIA (1968); T. MILLON, THEORIES OF PSYCHOPATHOLOGY (1967); E. SLATER & M. ROTH, MAYER-GROSS, SLATER AND ROTH: CLINICAL PSYCHIATRY at 237 (3d ed. 1960).

As regards collisions of experts that are based not mainly on disagreement concerning the *facts* but upon interpretative differences arising from fundamental theoretical divergencies, I can offer one piece of advice to counsel which I have rarely seen followed in a courtroom or read about in trial reports where psychiatric testimony was involved, although it is fairly common in general medicine or other expertise. As a way of reducing the weight of an expert's opinion that is more-or-less independent of theoretical biases, there is nothing in the law of evidence to prevent this line of questioning, if done properly. In cross-examining an opposing witness, one can at least bring out the fact that he is literally *uninformed* about the available scientific studies supporting a theoretical position different from his. If one's own witness shows that he is informed about the controversy and has drawn one conclusion, whereas the opposing witness, while drawing the opposite conclusion, turns out to be ignorant of the names, treatises, issues, arguments and evidence, I should think this would have a considerable impact upon a fair-minded jury. For example, there is a controversy in social science concerning the relative accuracy of two methods of predicting behavior, namely, the actuarial or statistical method—which proceeds more like an insurance company does in setting life-tables—and the clinical judgment method relied upon by most psychiatrists.⁸ Now it is not evidence of incompetence in a psychiatrist to disagree with my views on this subject, since there are well-informed psychologists who do so.⁹ But suppose your psychiatrist witness expresses the confident opinion that his clinical judgment—or the judgment of any qualified expert—would be more accurate than a computerized prediction based upon a mathematical combination of relevant data. When pressed on cross-examination, he says (as most psychiatrists and many clinical psychologists persist in saying) that “the superiority of clinical judgment to any mechanical rule or mathematical formula is well recognized in my profession,” or words to that effect. It is surely damaging—and given the rationale for

⁸ See LIVERMORE, MALMQUIST, & MEEHL, *On The Justifications for Civil Commitment*, 117 U. PA. L. REV. 75 (1968), especially note 4 at 76 and references thereat, to which should now be added B. KLEINMUNTZ, *CLINICAL INFORMATION PROCESSING BY COMPUTER* (1969), and, for further development of the counter-actuarial view, Holt, *Yet Another Look at Clinical and Statistical Prediction: Or, Is Clinical Psychology Worthwhile?*, 25 AMER. PSYCHOLOGIST 337 (1970). See also Marks & Sines, *Methodological Problems of Cookbook Construction*, in *MMPI: RESEARCH DEVELOPMENTS AND CLINICAL APPLICATIONS* (J. Butcher ed. 1969); Einhorn, *The Use of Nonlinear, Non-compensatory Models in Decision Making*, 73 PSYCHOL. BULL. 221 (1970); Pankoff & Roberts, *Bayesian Synthesis of Clinical and Statistical Prediction*, 70 PSYCHOL. BULL. 762 (1968); Peterson & Lynch, *Man as an Intuitive Statistician*, 68 PSYCHOL. BULL. 29 (1967); Sines, *Actuarial Versus Clinical Prediction in Psychopathology*, 116 BRIT. J. PSYCHIAT. 129 (1970).

⁹ See, e.g., Holt, *Clinical and Statistical Prediction: A Reformulation and Some New Data*, 56 JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY 1 (1958); Holt, *Clinical Judgment as a Disciplined Inquiry*, 133 J. NERV. MENTAL DIS. 369 (1961); Holt, *supra* note 8.

departing from the rule against opinions, it *ought* to be damaging—for opposing counsel to elicit the fact that this witness is literally unfamiliar with the very *existence* of a scholarly controversy, arising from a sizeable body of empirical literature (amounting now to over sixty studies) which overwhelmingly indicate that he is mistaken in this generalization. *It is difficult to come up with so much as one single well-designed research study in which the clinician's predictions are better than the statistical table or formula; in most studies the clinician is significantly worse.* There are very few domains of social science in which so sizeable a body of evidence is so consistently in the same direction. If a medical or social science witness is not even broadly familiar with this literature and the generalization it supports, he is a poorly qualified witness in the area of personality assessment and behavior forecasting, no matter how many degrees he holds or how many hundreds or thousands of patients he has examined. Every experienced judge and trial lawyer knows that it is easy to get psychiatric testimony on either side of a case, and that the courtroom “battle of the experts” is rarely edifying. One of the obvious advantages of actuarial or statistical methods over the clinical approach is that they are more objective and depend less on sheer authority. As plaintiff’s counsel in a wrongful death action, which would you prefer to rely on: life expectancy tables, or the opinion of a physician that “the deceased impressed me as healthy, I opine he would have lived quite a while?” Similarly it is permissible for an expert to disagree about the causation of schizophrenia, but if the possibility of its being inherited were a material question in the litigation, a psychiatrist who is not informed about the schizophrenia research on twins—a little sticky to bring out, but it should be possible by laying the right foundation—can hardly command the respect of the trier-of-fact that he would if he at least knew about this evidence but merely chose to interpret it differently.

It would be desirable for law schools to offer courses in the forensic aspects of the behavior sciences, provided that somebody on the law faculty is sufficiently well informed to make a reasonable judgment as to who should teach what. Whether it is better to hire a psychologist who is scientifically oriented (and therefore rather eclectic in his theoretical position) or instead to present a smorgasboard of experts who disagree and allow the law student to arrive at his own conclusions, I am not prepared to say. But if I were a law school dean, let me say frankly that I would temper my enthusiasm for interdisciplinary teaching involving the social sciences with a good deal of hard-nosed skepticism, because it is probably just as bad for law students to be brainwashed into a doctrinaire position about mind and society as it is for them to come out largely ignorant in these matters. “A little knowledge is a dangerous thing” is at least as true in the field of social science as it is anywhere.

That proverb is illustrated by the prediction problem alluded to above. It is generally supposed that one legal context in which medical

and social science should play an important role is in the pre-sentence investigation of a convicted offender. While there is a great deal of variation in this matter, it is safe to say that judges today are relying more heavily upon social science practitioners than in the past. And I suppose the same can be said of parole boards, youth conservation commissions, and the like. At the risk of making my colleagues mad at me, I must mention the possibility that the average level of scientific competence of the professionals available to judges for this purpose, taken together with the present unsatisfactory state of the art, may sometimes mean that society would be better off if the judge had relied upon his own common sense and experience rather than alleged expertise. For example, it is a rather strong generalization in social science that *the best way to predict somebody's behavior in the future is his behavior in the past*. There are numerous individual exceptions to this, and a hard-nosed, rigid application of the principle would be both inhumane and inefficient. But as a general statement, it has been repeatedly supported in a variety of domains. Now this statement is one which I suspect the average judge or attorney would believe, even if he were totally uninformed about social science research on the question. Most of us know that it is not a prudent move to lend money to a long-time deadbeat, or have your client tried before a "hanging judge." Whereas a *little* knowledge of social science or psychiatry, without a sophisticated study of the present state of predictive techniques, might lead a judge to play down his own experience and common-sense knowledge in favor of the opinion of a psychologist or psychiatrist who is supposedly an expert. Suppose that the professional is relying upon psychological tests and psychiatric interviews of moderate or low predictive power, which will usually be the case. Reliance upon his professional judgment in deciding upon the disposition of the offender may actually represent a lowering of accurate decision making from what would have been achieved had the judge looked only at the "record." I do not say that this is in fact the case; I merely emphasize that it is a live possibility.

A flagrant example, which gave rise to a great deal of critical comment in the Minneapolis newspapers recently, was a brutal slaying in connection with an armed robbery by a young man in his twenties who had recently been let loose on society by the responsible correctional board in spite of a history of fourteen previous convictions for crimes of violence against the person! The public—and I find myself as a psychologist in agreement with them—were understandably horrified and puzzled as to why the responsible agency had seen fit to let this person out. A spokesman for the board, feeling it necessary to reply to the mass of adverse criticism, admitted that an error had been made but said that the reason they decided to return him to society was that "he appeared very cooperative" in his interview with them. Now as a psychologist having some expertise in the prediction problem, I have to point out that to permit one's impressionistic judgment as to an offender's

“cooperative attitude” to countervail a behavioral history by age 24 of fourteen aggravated assaults, armed robberies, and attempted homicides can only be described as preposterous. It indicates that the board does not know how to think straight about these questions, and is not even decently informed as to the available scientific evidence. Even at the level of clinical judgment, any adequately trained psychologist would know that the combination of making a favorable interview impression with an objective history this malignant *is in itself a diagnostic sign of a well-known entity known as the sociopathic personality type*.¹⁰ So that

¹⁰ H. CLECKLEY, *THE MASK OF SANITY* (4th ed. 1964), whose beautiful delineation of the type makes it worth more than all other books and articles combined. Any of my law readers who have docilely accepted the widespread psychiatric cliché that “There is no such entity as the psychopath [= sociopath], it’s just a wastebasket term for patients we don’t like” should *study* Cleckley’s brilliant portrayal of the syndrome and evaluate his thesis in the light of their own experience. *See also* W. MCCORD & J. MCCORD, *THE PSYCHOPATH* (1964). The unfortunately common carelessness in diagnosis (worsened by incoherencies in the received nomenclature), which gives rise to the “waste-basket” cliché, cannot tell us whether there nevertheless exists a core group of true-blue psychopaths, who make up perhaps 30 or 40 percent of all patients “officially” labelled as sociopathic. The great merit of Cleckley’s book is to teach us how to spot the real ones and what to look for. Formal delinquency arising from antisocial conduct is *not* the clinical touchstone. I am myself convinced that Cleckley’s type exists, and is a very special breed of cat, at least as homogeneous as other recognized diagnostic entities. For some fascinating psychometric and psychophysiological data bearing on the taxonomic issue, *see* Lykken, *A Study of Anxiety in the Sociopathic Personality*, 55 *J. ABNORM. SOC. PSYCHOL.* 6 (1957), *replicated by* Schachter and Latane, *Crime, Cognition, and the Autonomic Nervous System*, 12 *NEBRASKA SYMPOSIUM ON MOTIVATION* 221 (1964). *See also* Hare, *Psychopathy and Choice of Immediate Versus Delayed Punishment*, 71 *J. ABNORM. PSYCHOL.* 25 (1966); Hare, *Acquisition and Generalization of a Conditioned Fear Response in Psychopathic and Non-psychopathic Criminals*, 59 *J. PSYCHOL.* 367 (1965); Hare, *Temporal Gradient of Fear Arousal in Psychopaths*, 70 *J. ABNORM. PSYCHOL.* 442 (1965). I think that the “essential psychopath” develops on the basis of some sort of (genetic) malfunction of the anxiety-signal systems of the brain, and we do have considerable (albeit conflicting) evidence that these persons manifest an aberrant brain-wave pattern. The electroencephalographic research is difficult to interpret, mainly because the *behavioral* side of the brain-wave-to-behavioral correlation is not studied in a way that is both (a) objective and (b) sophisticated [= theoretically informed]. It is pointless—worse, downright counterproductive because it misleads us—to study the EEG patterns of so-called “sociopaths” without measuring, rating, classifying the behavior deviations with a theory like Cleckley’s in mind, since without such the investigator *is* really dealing with a “waste-basket” bunch of psychologically heterogenous “antisocials.” For a nice example of how misleading it would have been to report brain-wave data on the crude category, *see* the careful but little-known study by Simons & Diethelm, *Electroencephalographic Studies of Psychopathic Personalities*, 55 *ARCHIV. NEUROL. PSYCHIAT.* 619 (1946) About the vexed issue of diagnostic rubrics in behavior disorders generally (commonly “settled” these days in a remarkably shoddy, dilettante fashion) *see* Livermore, Malmquist & Meehl, *On the Justifications for Civil Commitment*, 117 *U. PA. L. REV.* 75, 80 n.19 (1968). *See also* Meehl, *Specific Genetic Etiology, Psychodynamics, and Therapeutic Nihilism*, 1 *INT’L J. MENT HEALTH* (1970); Murphy, *One Cause? Many Causes? The Argument from a Bimodal Distribution*, 17 *J. CHRON. DIS.* 301 (1964); Wender, *On Necessary and Sufficient Conditions in Psychiatric Explanation*, 16 *ARCHIV. GEN. PSYCHIAT.* 41 (1967).

the “favorable impression” is actually evidence for a diagnosis that should rationally lead to the opposite disposition instead of the one made. Unfortunately, I am not satisfied that putting a psychiatrist or psychologist or social worker in the role of decision maker in this kind of case would be much better. Because the fact of the matter is that such a professional might also be naive in this area, and if he belonged to the “bleeding heart” rather than the “horsewhip school” (as social scientists tend to if they are doctrinaire), he might take the position that this friendly tousle-headed twenty-four year old lad may have shown poor judgment in sticking a switchblade into somebody, but his favorable attitude in the interview entitles us to be optimistic. This is just dumb, but it requires advanced education (M.D., Ph.D., or M.S.W.) to do it with flair. My point here is that unless one had some administratively workable means of assuring that the medical or social science practitioner is himself well-informed and a clear critical thinker, it is possible that his role in the total decision-making process may be, over the long run, adverse to the interests of both society and the offender.

Let me now turn to something that is music of the future but by no means in the class of science fiction, arising from what Professor Schwitzgebel, a psychologist associated with the Harvard Law School, calls “behavior electronics.”¹¹ His work has dealt thus far mainly with the possibility of keeping tabs on the location of a paroled offender by picking up radio signals from a transmitter worn by the individual, which already raises some ethical and legal questions, to which Dr. Schwitzgebel addresses himself in his publications. More difficult questions will arise from probable technological developments (based upon improved electronic gadgetry and advances in our knowledge of brain physiology) that will take place within the next decade. Research on animals and humans has shown the existence of specific regions in the brain whose activity is the basis of different emotions and drives, and it is known that direct intracranial stimulation via permanently implanted electrodes can exert a more powerful control over an organism’s behavior than that usually attainable by the delivery of ordinary positive and negative reinforcements, such as a pellet of food or a punishing electric shock to the feet.¹² There is some clinical research showing that unpleasant psycho-

¹¹ Schwitzgebel, *Issues in the Use of an Electronic Rehabilitation System with Chronic Recidivists*, 3 LAW & SOCIETY REV. 597 (1969). See also *Development of an Electronic Rehabilitation System for Parolees*, 2 LAW & COMPUTER TECHNOLOGY 9 (1969); *Electronic Innovation in the Behavioral Sciences: A Call to Responsibility*, 22 *Amer. Psychologist* 364 (1967); Note, *Anthropotelemetry: Dr. Schwitzgebel’s Machine*, 80 HARV. L. REV. 418 (1966).

¹² The great initial discoveries here were Olds & Milner, *Positive Reinforcement Produced by Electrical Stimulation of Septal Area and other Regions of Rat Brain*, 47 J. COMPAR. PHYSIOL. PSYCHOL. 419 (1954), and the same year, independently, Delgado, Roberts & Miller, *Learning Motivated by Electrical Stimulation of the Brain*, 179 AMER. J. PHYSIOL. 587 (1954). Reviews of subsequent developments may be found in Olds & Olds, *Drives, Rewards, and the Brain*, in 2 NEW DIRECTIONS IN PSYCHOLOGY 327 (T. Newcomb ed. 1965); Olds, *Hypothalamic Substrates of Rewards*, 42

logical conditions of anxiety or depression in psychiatric patients can be “turned off” by the patient at will, simply by pressing a button on a electronic gadget in his pocket.¹³ Given only a little advancement in our knowledge of the brain and our electronic instrumentation, it will be feasible to have implanted electrodes appropriately placed in the brain of a chronic recidivist that will reveal the fact that he is approaching a potentially dangerous state of rage readiness, or sexual arousal, or anxiety level nearing panic, or other states which in his case are a major factor in producing episodes of antisocial conduct. This cerebral “danger signal” could either be monitored by a central receiving station—sort of a computerized parole officer!—or the patient trained to respond as his own electro-therapist by pushing the right button on his equipment to “turn off the undesirable state.” He might even be wired directly so that such a dangerous brain-signal would give rise, in the apparatus worn, to an appropriate “turn-off” electronic input, thus bypassing the patient’s own volition as well as any decision by the central monitoring agency. Query whether a constitutional issue, not to say a basic ethical issue, would arise if the offender’s submission to such “brave-new-world” wiring of his brain were made a legal condition for his being returned to society? An analogy has been made between this situation and the one in which society can isolate a patient with active pulmonary tuberculosis if he refuses chemotherapy; but for most of us, such analogies are imperfect in an important respect, to wit, that we do not readily view what is called “voluntary conduct” as quite comparable with the presence of infectious disease.

Apart from the immediate legal questions that will have to be faced when such feats of electronic behavior engineering become technologically practicable, one suspects that their indirect influence on our *attitudes* toward antisocial conduct may be even more significant in the long run. I have in mind the traditional conflict between psychological determinists and believers in free will, and the bearing of this ancient controversy upon how society conceives the functions of the criminal law. I think it is true, whether it is rational or not, that the concrete showing of a pronounced control of behavior via the physical influencing of brain-processes has considerably more impact upon our ethical stance than does a mere abstract philosophical argument in favor of psychological determinism. For example, I think most persons are not

PHYSIOL. REV. 554 (1962); Trowill, Panskepp & Gandelman, *An Incentive Model of Rewarding Brain Stimulation*, 76 PSYCHOL. REV. 264 (1969). See also Roberts, *Hypothalamic Mechanisms for Motivational and Species-typical Behavior*, in THE NEURAL CONTROL OF BEHAVIOR (R. Whalen, R. Thompson, M. Verzeano, and N. Weinberger eds. 1970).

¹³ Heath & Mickel, *Evaluation of Seven Years’ Experience with Depth Electrode Studies in Human Patients*, in ELECTRICAL STUDIES ON THE UNANESTHETIZED BRAIN (E. Ramey and D. O’Doherty eds. 1960). But no dry, scientific verbal reports or graphs can convey the sense of powerful control over behavior and subjective experience that one gets from viewing Dr. Heath’s sound movies of his wired-up patients!

willing to exculpate, either ethically or legally, an offender on the grounds that he probably inherited a “bad temper” or an “impetuous disposition.” But if, as some fairly persuasive evidence now suggests, it should turn out that some individuals are overly prone to aggressive behavior because the cells of their bodies contain an extra Y-chromosome, this kind of biological causation influences us to view the antisocial propensities as similar to a true *disease*, comparable to color blindness or diabetes, for which we want strongly to say that “such a thing is surely not the individual’s own fault.” Future developments in psychophysiology of the brain and electronic control of behavior via direct brain-stimulation will probably have an impact upon the thinking of educated persons concerning the concept of criminal responsibility, and the functions of the criminal law, that will be far greater than the hackneyed arguments employed by Clarence Darrow in his famous “deterministic defense” of Loeb and Leopold.

By referring to Darrow’s famous speech as hackneyed, I do not mean to dismiss the problem of psychological determinism and moral responsibility, which I view—unlike some contemporary philosophers of the “ordinary language school”—as a real one of terrifying complexity. You will recall that Loeb and Leopold, two bright and sophisticated youths from wealthy families, carried out a carefully planned murder of a neighbor boy just for “kicks,” and to prove that they were clever enough to plan and perform the perfect crime. The prosecution had the goods on them, including their confessions; so Darrow’s approach to avoid the death penalty was, pyrotechnics aside, essentially a rejection of the criminal sanction itself as presently understood. Darrow argued that while these defendants were not legally insane, their behavior was a product of their heredity and environment. Absent any showing of mental illness (or even anything special about their heredity or their environment that could be plausibly linked to the crime) what this argument really amounts to is that since human behavior is determined, the sanctions of the criminal law ought not to be imposed. Let me say parenthetically that I myself am strongly opposed to capital punishment and am not arguing that Loeb and Leopold should have been executed; my point is that the rationale of Darrow’s summing-up, if extrapolated, would presumably mean nobody should be punished (whether fined, incarcerated, or executed) for anything. Now it just will not do to pitch it at that level if we are interested in policy questions instead of merely persuading a jury. Much as I hesitate to enter into the complexities of the determinism issue, I do not suppose anybody here would feel he “got his money’s worth” if a psychologist talking about the criminal law failed to say something about this old question. Perhaps the commonest stereotype that lawyers and judges have of psychologists and psychiatrists is that our belief in psychological determinism leads us to “side with the criminal against society.” There are psychiatrists and psychologists who exhibit this prejudice, and who even write articles and books to this

effect; but I myself am not in sympathy with them. Some of the statements that I have seen by psychiatrists on the subject of crime are not scientifically supportable, and are so muddleheaded philosophically that they are embarrassing to read. I will ask you to set aside any anti-psychological prejudices you may have and listen open-mindedly to what I have to say, because I assure you that I do not say it tendentiously with any kind of softheaded animosity toward the criminal law. I repeat, I do not belong to either the "horsewhip school" or the "bleeding heart school" of criminology.

What is psychological determinism? Certain ways of stating it are inaccurate and morally misleading, such as, "Psychological determinism means that you have to do certain things whether you want to or not." What a person *wants* to do is part of his psychological state, and human voluntary behavior is controlled by our motives in a way that involuntary responses (such as the knee-jerk reflex or, in my view, even an attack of psychosomatic asthma) are not. Simply put, psychological determinism is the doctrine that all human behavior is strictly caused by the antecedent conditions, both within the individual and external to him; or, to avoid the troublesome word "cause," that all human behavior instantializes or satisfies laws of nature. It is most unfortunate that the same term "law" is used for such natural regularities as for human statutes, but there is no other term. So the determinist believes that, theoretically, somebody who knew the exact physical state of my brain and Dean Gray's brain when we first met [this morning] would have been able to predict exactly how the course of our conversation proceeded. I am not concerned here to argue the merits of this position, with which I daresay you are all familiar. It is an extrapolation of something everybody knows from common life, *i.e.*, that a large part of human conduct can be predicted with high confidence. We do not expect children born and raised in Spain to grow up as hard-shell Baptists; we often explain somebody's conduct by pointing out that his parents didn't discipline him properly as a child, or that he inherited his bad temper from his grandfather, and the like. Even in matters of ethical decision, where traditionally the emphasis upon the individual's "freedom to choose" has been the greatest, we rely on the stability of long-term character when we say confidently, "He would never do such a thing, that's not the sort of person he is." Note that I have not made any reference to coercion, or compulsion, or any term that suggests a person has to do something against his will. That is not the point of determinism at all. The point is that the motivational state of his will is also determined by his genes and his life history and the fried eggs he had for breakfast. I think the main difference between psychologists and others in this respect is not that non-psychologists reject psychological determinism, the common-life examples I just cited show that everybody implicitly relies on the orderliness of behavior as a general rule. The point is that most of us are not always consistent about it. The psychologist, since his subject matter is

the prediction and control of behavior (whether of pigeons, rats or people) assumes that everything is strictly determined and could be predicted if we only knew enough about it. Whatever the merits of that extreme position, I readily admit it is partly an article of faith by the psychologist. But it is based upon extrapolation from both ordinary life and the psychological laboratory, where the more we control the variables, the more predictable the behavior becomes. You can predict the rat's behavior to some extent just watching him run around in a free field situation and knowing nothing about his past. You can predict his behavior better if he has been raised in the laboratory and you know his previous history of experiences and you have him running around in a maze under standard conditions. If you put him in a soundproof, light-proof box with practically perfect control of the stimulus conditions, and study some objectively countable kind of behavior like pressing a lever, the degree of regularity exhibited by this behavior, while still not perfect, is very impressive. When we combine the experimental psychology of learning with Freud's clinical material indicating that even the most trivial "accidental" occurrences of common life (such as slips of the tongue or mislaying objects) are explainable in terms of unconscious motives; and then remind ourselves that, after all, behavior is the movement of muscles under the control of impulses from the brain, and the brain is, however complicated, still a system of physico-chemical processes, and it is not so *very* far-fetched for the psychologist to hazard the opinion that the behavior of human beings is, in the eyes of "Omniscient Jones," just as orderly and strictly deterministic as the behavior of other physical systems about which we happen to possess more detailed information.

Now my point about Clarence Darrow is that his speech to the jury relied on general philosophical arguments. When we find out that the murderer Speck had inherited an extra Y-chromosome, this somehow impresses us more than saying that a criminal offender inherited a bad temper. But it is hard to think of any good philosophical reason why an extra Y-chromosome should somehow reduce Speck's moral or legal responsibility, whereas inheriting fifteen genes that would add up to a bad temper should not do so. The difference between one chromosome and 15 genes is not a philosophically relevant one, but I suppose that a single causative factor, one which is visible under the microscope, somehow carries more weight with us than fifteen genes which we have to refer to vaguely as a "polygenic system" and cannot even locate at the present time. My point in this example is that how strongly the idea of psychological and biological determinism "grabs us" depends partly on how concrete and simple the causative factor happens to be. Most of us would be distressed to find a man convicted of manslaughter if he struck a nurse while flinging his arms about during a delirium induced by typhoid fever. However, when the causal chain becomes more complicated, subtle, and more difficult to discern (even though we may

suppose that it is clear in the eyes of God), the determinist thesis does not pack its usual wallop for us.

What, if anything, is the relevance of psychological determinism to our thinking about crime? The most general statement is an encouraging one, in spite of our limited knowledge at the present time. The general statement would be that *if* all behavior is strictly determined by biological, psychological, and social factors in the person's life history, then since criminality is a form of behavior and therefore is strictly determined, like any other kind of behavior it should presumably be controllable in principle. If we know what causes something in sufficient detail, we should be able to put a stop to it, provided of course that we are both willing and able to do something about the causes. That preliminary general comment should keep us from feeling pessimistic about the long run; but I hasten to add that it is not a very helpful remark, given the present state of our psychological knowledge and the attitudes of our society.

We must ask ourselves a question which is outside the psychologist's bailiwick, namely, what are we trying to do by means of the criminal law? A psychologist or sociologist relates to you, as citizens and taxpayers, as does an engineer or bacteriologist, in that he can tell you something about the causal relation of ends and means (including sometimes telling you things you do not want to hear, to the effect that certain means will not in fact achieve the ends you are assuming they do). Equally important is that we can tell you something about *methods of investigating* whether certain means work or do not work. But you have to tell the social scientist what your goals are. Now the first difficulty is that the criminal law does not have one single defining aim on which everyone in our society agrees. Traditionally, it has had at least four purposes. These are: (1) Physical isolation of the individual offender, to prevent his committing further antisocial acts by removing him from the social group; (2) Reform, rehabilitation or treatment of the offender so as to lower the probability of his committing further offenses upon release; (3) General deterrence, lowering the probability of offenses by persons, who might be disposed to such, by the threat of the criminal sanction; and (4) Retributive justice, in the sense that society should exact suffering from an individual to make him "pay for what he did." Whatever may be the moral and political justifications for these four functions of the criminal law, and whatever may be the adequacy of our available techniques for achieving them, there is no assurance that the same techniques will maximize all four. Hence, you have to decide which of them you consider more important, and then combine that choice of aims with the best available scientific information as to the efficacy of procedures for achieving each, yielding a conclusion as to what we should be doing until further notice.

At present, the four traditional functions do not have an equal status in the judgment of informed persons. It is depressing to say it, but I can-

not emphasize too strongly that the only one of these four functions that we can be confident about our ability to perform is the first one—social isolation of the offender. One does not need any scientific research to be confident that if somebody is securely locked in the state prison, he cannot steal my car or rape my wife or burn my house. If there were no other considerations (salvaging a human personality, saving taxpayer money, avoiding needless suffering), the obvious easy solution would be life imprisonment for all criminal offenses, non-paroleable, in a maximum security prison. Although I should point out to you that if that were the approach, ignoring all aims except the first, there would be no good reason for making it into a prison. What we would want is a beautiful, comfortable, south-sea island with a pleasant climate and plenty of free coconuts and bananas. We should probably import some dancing girls (although of course we could have criminals of both sexes on the same island). It would be humanitarian to provide medical care, but it would be easy to find dedicated missionary doctors to go there. We either have the place surrounded by sharks, or periodically we dump some radioactive salt in the ocean surrounding it, so that we need not even bother with guards. The offenders can enjoy themselves, and meanwhile sociologists and anthropologists could study the kind of legal system they would develop (there is no question at all that they would develop one). Everybody there would be “living it up and happy as a clam,” and meanwhile we would not have to worry about them. The attitude that would inspire this solution—and for four-time losers, given to crimes of violence against the person, I might be prepared to defend this proposal with complete seriousness—would be: “I have no desire to make criminals suffer for their crimes, I experience no impulse for vengeance, and I have no need to extract a pound of flesh. I do not even understand the concept of an ‘injury to society’ as involving some kind of hedonic bookkeeping that must be balanced. I don’t want to make the man unhappy, or to deprive him of food or sex or poker-games—all I want is to keep him away from me.” It seems to me that this would be an eminently humanitarian and rational approach, given the assumption (which none of us *really* makes) that the sole function of the criminal law is to reduce as much as possible the probability that the individual will do further social harm to the larger community. The point of my example is partly to highlight the fact of disparate aims that must be reconciled, but also that this is one function we do know how to perform if we could honorably set ourselves single-mindedly to it.

As to the laudable aim of rehabilitating or reforming the offender, I have already said that there is no persuasive evidence that we know how to do so by any of the available methods. While criminology is not my area of professional expertise, I am somewhat familiar with the research literature; and I have it on the authority of a first-class sociologist colleague that there is at present no good research evidence to show that harsh punishment, psychotherapy, group counseling, reducing the case

load of probation officers, neighborhood programs, or anything else significantly reduces the probability of delinquency in predelinquent individuals, the probability of parole violation, or the probability of criminal recidivism. An exhaustive survey of the research literature led one scholar to conclude bluntly that the amount of outcome optimism in various studies was inversely proportional to the scientific rigor of the investigation! The better the study was conducted according to the methodological canons of social science, the more discouraging were the research findings.¹⁴ This trend is now becoming so clear that one threat to further research is the “correctional establishment” itself, which in some instances has gone to considerable lengths to suppress the results of scientific research, even to the point of trying to prevent a state legislature from having access to the research outcomes.

The approach to delinquent and criminal behavior which makes the most theoretical sense to me as a psychologist, and which I urge you to encourage and foster by dollars and influence, is the behavior modification approach stemming from the work of B. F. Skinner.¹⁵ If you hear that an enterprising psychologist wants to introduce it experimentally into your correctional system, do not allow yourself to be brainwashed by some psychiatrist, clinical psychologist, or social worker with a bunch of clichés implying that psychotherapists and social workers know how to rehabilitate criminals, because such is simply not the case. Nobody knows how. So you might as well let a zealous Skinnerian try *his* hand at it, because the available evidence shows that we are not accomplishing much of anything with the present conventional methods.

The case for general deterrence (*i.e.*, a deterrent effect not upon the offender himself after release, but upon the rest of us who experience varying opportunities and temptations to commit crime) is not much better than that for reform but—this may surprise you coming from a psychologist—as I read the record it is *slightly* better. There is evidence to support the idea that at least *some* kinds of potential offenders are deterred to *some* appreciable extent from committing *some* classes of crimes. It appears plausible, for instance, that crimes against the person are not as much influenced by the threat of apprehension as are crimes against property. This makes good psychological sense, because crimes against the person (such as rape, murder, and aggravated assault) are almost certainly indicative of a greater degree of psychological and social pathology, and are less likely to be “decided on” in the way that the traditional Benthamite theory of punishment as a general deterrent would suppose. How many of you, for instance, think that the chances of your committing rape or murder would be materially increased if you discovered that there was no law against it in the state of Virginia? The point is that one who is at all likely to commit this kind of crime has

¹⁴ Bailey, *Correctional Treatment: An Analysis of One Hundred Correctional Outcome Studies*, 57 J. CRIM. L.C. & P.S. 153 (1966).

¹⁵ See authorities cited note 6 *supra*.

usually got something very much wrong with him (I do not mean that he is insane in the legal sense) and most such crimes are probably committed under somewhat abnormal conditions of passion, or by persons who lack the very kind of deliberation, rational foresight, and impulse control that the criminal law presupposes when it tries to deter such conduct by the threat of punishment. But there are crimes against property and white-collar crimes which are fairly tempting to persons within the relatively normal range of socialization and mental health. Some kinds of white-collar crimes, such as fudging on one's income tax, are widespread among persons who are otherwise law-abiding. It is not surprising that statistical studies of crime-rate fluctuations under special circumstances (such as Nazi inactivation of the Danish police) show a considerably greater increment in crimes against property than crimes against the person. You sometimes hear members of the "bleeding heart school" argue that we know the criminal sanction does not deter because capital punishment does not seem to decrease the murder rate, but this is a psychologically fallacious argument. The "horsewhip school" is probably wrong about capital punishment, but murder is such a low-incidence crime, is so suggestive of severe personal and social pathology, and the threat of being imprisoned for life is such a severe threat already, that extrapolating to other crimes and other classes of offenders from the rather well-established finding that the death penalty does not *further* deter is illegitimate.

Finally, with regard to retributive justice, two things must be said. Granted that some able minds (such as Immanuel Kant) have considered this a legitimate function—he said that even if civil society were to be dissolved tomorrow, we should have to hang the last murderer before disbanding, so that justice could be done—and while some first-class contemporary thinkers (such as Professor Herbert Morris) write persuasively about the moral bookkeeping, the retributive justice function is pretty hard to defend. Even if, as a general principle, I were contented with it (which I am not), I would have to say that as a psychologist it seems to me extremely rash for us to try to "make the punishment fit the crime," as the saying goes, in light of present psychological, sociological, and genetic knowledge. I simply do not see how I, or anyone else, or any group of persons, lay or professional, can be in a sufficiently God-like position of knowledge to decide, as between two persons who committed antisocial acts, which one "deserves" to suffer the greater penalty. Short of gross mental disorder (which I think should exculpate an offender from being officially labelled "criminal"),¹⁶ I believe strongly that this kind of moral balancing is at present, and for the foreseeable future, beyond our powers. Therefore I am not inclined even

¹⁶ Livermore & Meehl, *The Virtues of M'Naghten*, 51 MINN. L. REV. 789 (1967). Objections of my brethren in psychology have persuaded me that the application of our M'Naghten-Rule exegesis to Case 14 (at 853) yields an untoward result. At this writing my law colleague Livermore is inaccessible so I cannot speak for him.

to argue the retributive justice aim on the philosophical merits, since I do not believe our methods of unraveling the individual case are accurate enough to enable us to perform the Solomonic task required if we are to do it justly.

Where does that leave me? Pending good research on innovative approaches to rehabilitation, recognizing that if some potential offenders can be deterred, they will be deterred even though general deterrence is not our main aim (absent more convincing demonstration of its efficacy), and rejecting retributive justice as an aim, both for philosophical and empirical reasons—I conclude that by far the heaviest weight in writing and applying the criminal law should be given to the only one of the four traditional functions that is clearly defensible philosophically and that we know we can perform, to wit, isolate the offender from the rest of us so long as he has appreciable probability of committing further serious depredations.¹⁷ Most of you will not agree with me when I add that I

¹⁷ Reactions of hearers of this lecture and readers of the manuscript indicate that “serious depredations” needs underscoring and expansion, especially in relation to the penal South Sea Island fantasy *supra*, where my specific restriction to “four-time losers, given to crimes of violence against the person” seems readily missed by those whose reflex identification is with the criminal offender rather than with his actual *and potential* victims. The point deserves, of course, much more than a footnote. I am assuming that most of my fellow-citizens are like me in fearing crimes involving violence to the person (or threat thereof) more than crimes against property. Furthermore, one can protect himself against property crimes in ways that do not make much psychological sense when applied to personal-violence crimes. No amount of life or disability insurance will recompense me if a hoodlum or psychopath kills me or gouges my eye out; nor would the fact of being “adequately” insured prevent my living in fear if the Hobbesian war of every man against every man prevailed. Whereas it seems fair to say that the various buffers against property crimes, ranging from a fidelity bond to vandalism coverage on one’s automobile, serve adequately to relieve most of us from catastrophic consequences and the chronic fear of such. For my part, therefore, I want the muggers, knifers, armed robbers, rapists, kidnapers (and night-time burglars?) put away safely, more than I do the shoplifters, car-thieves, embezzlers, forgers, and con men.

The reference to “four-time losers” was an arbitrary choice of cutting score, recognizing that a number of previous offenses has a high prognostic power. (See *e.g.*, the impressive curves in Figure 1 of Wilkins, *supra* note 3, at 55. I am confident that no psychological test scores and no psychiatric clinical ratings, singly or jointly, could come even close to competing with these actuarial recidivism functions in steepness.)

In considering the merits of imprisonment for property offenses, someone should cost-account our correctional system with an eye to the disturbing question, “Does it cost the average taxpayer more to incarcerate felon Jones [larceny of \$150 TV set] for five years than it would cost to let Jones go free but group-insure adequately against Jones’ statistically expectable larcenies during the ensuing 5-year interval?” I have no idea what such a cost accounting would show, but I would be most curious to see it done. It is not inconceivable that fifty years hence the several-year imprisonment of a TV-set thief will seem as strange to educated persons as the fellow-servant rule for industrial accidents seems to us today, accustomed as we are to the universal enactment of workmen’s compensation statutes. Setting aside *both* employer’s fault and contributory negligence by the injured workman—surely “unfair” to one thinking in terms of ordinary tort concepts—we have come to consider it rational to collectivize this risk by law, making the consumer pay for it as part of production costs.

A recent Finnish study (personal communication, abstract only available, from my

would try to make his period of isolation a relatively pleasant one. I strongly suspect that imprisonment per se plus, for those of us who are not professional criminals or sociopathic personality types (and they will not be deterred anyway!), the social opprobrium of being sent to prison and labelled “convicted criminal” are the chief deterrents, rather than our expectations as to whether we will have beer and skittles once we are there. I cannot believe, for instance, that it improves the general psychological state of anybody to be deprived for ten years of a normal sexual outlet and to engage in homosexual relations in prison as a substitute, which is what we know happens. I therefore strongly favor the Latin American custom of letting prisoners be visited by their wives or, if they don’t have wives, by their girl friends. In fact I would include such visits, along with many other rewards, ranging from whether you can have cigarettes or watch the color TV instead of the plain one, to weekend passes, or money to hire an expensive call girl, as among the reinforcements for shaping up behavior in a variety of ways. I suppose these suggestions will offend many of you. I frankly choose them for that purpose. I am not a parson. I am a psychologist and my concern with crime is that of a behavioral engineer. In my professional capacity, I am not in the least interested in making people good or getting them into heaven. I am interested in lowering the probability that they will subsequently commit antisocial acts that I as a citizen find frightening.

To a psychologist it is not really surprising that the conventional methods of preventing delinquency or reducing recidivism are relatively feeble in their impact. Whatever may be the best taxonomy of criminal personalities (and a non-arbitrary classification of offenders is one of the most important research problems),¹⁸ there are two categories that will surely be included in any such classification system. There is the deeply pathological specimen who suffers from diagnosable mental disorder, manifesting itself in other ways besides his legal delinquency; and there is the psychiatrically normal “professional criminal” type, the causation

sociologist colleague Dr. David Ward) showed that recidivism-rates for offenders convicted of property crimes or drunken driving did not differ as between those incarcerated in closed prisons and those placed in “open institutions” (labor colonies). The abstract concludes that “It seems to be possible to achieve remarkable savings in cost of prison systems and at the same time avoid needless human suffering to prisoners and their families by decreasing use of closed prisons and replacing with labor colony type institutions.” Of course this study cannot answer the question whether closed imprisonment would, in the *very* long run, exceed labor-colony service in its *general* deterrent effect (on potential but non-actualizing offenders). Suppose that statutory probation for the first *n* property offenses were yet a third form of “social treatment.” I find it pretty hard to believe that *zero* change in commission-rate of these crimes would occur as a result. But would the increase be large enough to render such a rule diseconomic? I submit that we really do not know; and we surely ought to be doing research to find out! *See also Preliminary Report on the Costs and Effects of the California Criminal Justice System and Recommendation for Legislature to Increase Support of Local Police and Correction Programs* (Research Office of California Assembly, 1969).

¹⁸ T. FERDINAND, *TYPOLOGIES OF DELINQUENCY: A CRITICAL ANALYSIS* (1966).

of whose antisocial conduct lies in genetic and social factors of a kind not essentially different from the explanation of why someone is an extravert or a Republican or a skilled mechanic or an Episcopalian or a good poker player. The usual correctional methods do not provide the duration or depth of therapeutic interaction appropriate for the pathological type. Furthermore, the effectiveness of conventional psychotherapy and casework is itself limited, and in fact not strongly supported by evidence of efficacy even for non-criminals.¹⁹ As for the professional criminal, consider the psychological forces operative on such a person, especially the reward system for his style of life. His associates, his self-concept, his feelings of personal worth, his pride in his professional skill in picking pockets or “cracking” safes, his social and sexual life, the very vocabulary in which he talks and thinks, his long habituation to a life of autonomy to do as he pleases (*e.g.*, to sleep late mornings) so long as he pulls a successful “job” now and then, his low tolerance for boredom,

¹⁹ The younger generation of law professors has to some extent been brainwashed by psychiatrists and social scientists into implicit acceptance of the efficacy of conventional psychotherapy, including psychoanalysis. While I myself have experienced it, urge it upon my clinical students, and have for some twenty years been earning a sizeable fraction of my income as a psychotherapeutic practitioner, I cannot emphasize sufficiently to my law-trained readers that psychotherapy is today a problematic and marginal operation, such that sane and intelligent minds can—and do!—seriously raise the question whether it has any efficacy whatever. I personally “believe it works” for *some* patients if they are lucky enough to have the right psychotherapist. See Meehl, *Discussion of Eysenck's “The Effects of Psychotherapy,”* 1 INT’L JOURN. PSYCHIAT. 156 (1965). But I cannot really prove this scientifically. If there are readers to whom this revelation (of a truism among scientifically competent psychologists) comes as a shocking novelty, I recommend perusal of the entire journal issue cited. See also BERGIN & STRUPP, (tentative title) *ADVANCING THE SCIENCE OF PSYCHOTHERAPY AND BEHAVIOR CHANGE* (1971); A. ELLIS, *REASON AND EMOTION IN PSYCHOTHERAPY* (1962) (especially his superb Chapter 20, “The limitations of psychotherapy” at 375); A. GOLDSTEIN & S. DEAN, *THE INVESTIGATION OF PSYCHOTHERAPY* (1966); A. HERZBERG, *ACTIVE PSYCHOTHERAPY* (1945); 1 *RESEARCH IN PSYCHOTHERAPY* (E. Rubinstein and M. Parloff eds. 1959); 2 *RESEARCH IN PSYCHOTHERAPY* (H. Strupp and L. Luborsky eds. 1962); D. WIENER, *A PRACTICAL GUIDE TO PSYCHOTHERAPY* (1968); *Symposium: The Hospital Treatment of the Schizophrenic Patient*, 8 INT’L J. PSYCHIAT. 699 (1969); and the periodic reviews of research in *ANNUAL REVIEW OF PSYCHOLOGY* under headings “Psychotherapy” or “Psychotherapeutic Processes” by Snyder, 1 ANN. REV. PSYCHOL. 221 (1950); Hathaway, 2 ANN. REV. PSYCHOL. 259 (1951); Raimy, 3 ANN. REV. PSYCHOL. 321 (1952); Sanford, 4 ANN. REV. PSYCHOL. 317 (1953); Saslow, 5 ANN. REV. PSYCHOL. 311 (1954); Meehl, 6 ANN. REV. PSYCHOL. 357 (1955); Harris, 7 ANN. REV. PSYCHOL. 121 (1956); Winder 8 ANN. REV. PSYCHOL. 309 (1957); Snyder, 9 ANN. REV. PSYCHOL. 353 (1958); Luborsky, 10 ANN. REV. PSYCHOL. 317 (1959); Rotter, 11 ANN. REV. PSYCHOL. 381 (1960); Seeman, 12 ANN. REV. PSYCHOL. 157 (1961); Strupp, 13 ANN. REV. PSYCHOL. 445 (1962); Wirt & Wirt, 14 ANN. REV. PSYCHOL. 365 (1963); Colby, 15 ANN. REV. PSYCHOL. 347 (1964); Matarozzo, 16 ANN. REV. PSYCHOL. 181 (1965); Dittmann, 17 ANN. REV. PSYCHOL. 51 (1966); Ford & Urban, 18 ANN. REV. PSYCHOL. 333 (1967); Cartwright, 19 ANN. REV. PSYCHOL. 387 (1968); Gendlin & Rychlak, 21 ANN. REV. PSYCHOL. 155 (1970). I must confess as a practitioner that most of the psychotherapy research strikes me as curiously unilluminating.

and (especially if he has undergone considerable imprisonment) a diffuse hatred and contempt for what he perceives as the hypocritically so-called “law-abiding” society and its law enforcement agencies—all of these militate against shifting to a law-abiding career. It may be that special methods of rewarding even moderate amounts of productive economic work should be applied to such individuals, in which the best available know-how about the psychology of learning is brought to bear. Thus, for example, it might be necessary to deliver economic rewards to such individuals on a different schedule and in greater amounts, because we have a very strong collection of habit systems working against us when we try to change such a person. Instead of the usual procedure of revoking parole for any technical violation, learning principles would suggest such control techniques as rewarding violation-free intervals that are then made progressively longer, grading the rewards and punishments in proportion to the kind of violation, and so forth. The point is that psychology today has a pretty powerful tool-kit for behavior modification which is not being used—in fact is almost unknown—in the correctional system. But such special approaches would require firm, informed, clear-headed adoption of a consistent behavior-engineering viewpoint. The first reaction one has to such ideas is likely to be, “Why should this crook get paid more or more frequently or on a different basis from Honest John citizen?” To which my reply is, “Make up your mind what you are trying to do. If you have to treat some people in a rather special way for a while in order to get their behavior running along the lines you want, you cannot afford as a taxpayer (and potential victim) to be preoccupied with giving everyone his due. You have to decide firmly whether you want to reduce the crime rate more than you want to maintain some kind of cosmic ethical bookkeeping.” The answer to the question why should somebody be treated specially is the counter-question, what are you trying to accomplish?

The same is true with respect to ameliorating the background conditions which raise the probability of delinquent behavior, such as slum environment, unemployment, racial discrimination, and the like. If one is primarily oriented toward ethical or political categories, he is likely to say, “Well, I know a fellow who was raised in a slum dwelling and whose father was a drunkard and his mother was a prostitute and his older brother was a pickpocket; but that fellow grew up to be a successful law-abiding citizen.” So what? Fine for him! But where is one supposed to go with this argument? The anecdote shows that criminal behavior is predictable only in statistical probability from certain kinds of background factors but not with certainty. Personally, I cannot as a citizen and taxpayer take any satisfaction, in case a more typical product of a bad neighborhood and family environment commits a crime against me, in knowing that some *other* persons from similar backgrounds turn out better. What good does it do me to know this? I repeat, you have to make up your mind what you are trying to do. The difficult thing in this

area is to “keep your eye on the ball.” I am not trying to eliminate all application of the categories of justice, but I would confine emphasis on them to the specific question involved when a trial court concludes as to a defendant’s guilt or innocence as charged. Outside of that issue, I would minimize reference to ethical and equitable notions in the same spirit that I think it more important to reduce the incidence of venereal disease among our soldiers than to see that individuals pay for their sexual sins by becoming infected because catching syphilis or gonorrhea is “their own fault.”

Let me give you a non-criminal example of this tension between concern with ethical and political categories and concern with efficient behavioral engineering. I recently heard a Ph.D. oral in which the candidate was a psychologist who reported on the application of Skinner’s method of behavior control to a variety of problems, including that of a man who had been chronically unemployable for many years because he got into the habit of utilizing the most minor physical or mental discomforts as an excuse to stay home in bed, as a result of which his irregular work attendance led to his discharge from any job. His wife was working full-time to support them. Conventional psychotherapy had been almost without effect, except perhaps to make the man feel a little more comfortable in his parasitic role! The student psychologist worked out a detailed plan of rewards and deprivations—which included persuading the patient to make an attorney the receiver of his salary checks—and by a slow, careful, scientifically-graded process lasting over several months, worked the man out of his longtime habits and by the time of the thesis writing the patient had been steadily employed at the same job for over a year, the first time in his life he had ever held any position more than a few weeks. But many special provisions had to be made, including rather inconvenient arrangements with his employer and supervisor, in order to bring about this result. Now suppose we are tempted to say, “Why should we go to so much trouble about this fellow? Why should he have such special privileges when he is just a lazy goldbrick good-for-nothing? If he doesn’t show up for work, he deserves to be fired. Other people do their jobs without such special psychological handling. Shame on him!” Without entering into the merits of these evaluative judgments, which I confess I share (since I agree with my sainted namesake that “he who does not work should not eat”), such responses on our part are socially inefficient, because while they give us the satisfaction of looking down our noses at an apparently inferior being, the fact is that they do not shape him up. It is far more socially desirable to take the trouble over a period of months to change his behavior so that he becomes, and hopefully will remain, a functioning economic unit. I repeat: We have to make up our minds what we want to do. For my part, I am much less interested in speculating about people’s fundamental moral responsibility for being the way they are, than I am in trying to change them in a socially desirable direction.

I should like to close with a political observation and a political plea. The high visibility in American society of the crime problem imposes a terrible burden upon law enforcement agencies, correctional personnel, and political officeholders. I agree with psychologist Donald T. Campbell²⁰ that there is need for a change in the political atmosphere as regards crime and similar social problems, toward a more open recognition that we do not know exactly how to proceed, that no man or group of men or political party knows how to proceed, so that persons running for elected office, or holding appointive office in correctional and law enforcement systems, would feel a freedom that they do not currently feel in our political atmosphere to say that for the next few years such-and-such a social experiment is going to be tried. The mandate should not be to stamp out crime (or poverty, or discrimination, or inflation) but the mandate should be to embark, wholeheartedly but skeptically, upon the social experiment to see whether or not it works. Society is continually experimenting on its problems whether we label it by that name or not. It should not be a disgrace for a politician to say that Method Number One was given a good try during his term in office, and it appears not to be successful. It is no disgrace for a scientist to report the negative results of an experiment. The point is that the experiment had to be done before one could find out that the results were negative. Only in such a political atmosphere can the psychologist reach the full potential of his contribution to the amelioration of social problems.

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²⁰ Campbell, *Reforms as Experiments*, 24 AMER. PSYCHOLOGIST 409 (1969).