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Are We There Yet? Stasis and Progress in Forensic Psychology

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Abstract

Progress in forensic psychology has been rapid in some areas and nonexistent in others. By contrasting technological and conceptual scientific progress in three areas—the legal disposition of mentally ill offenders, risk appraisal, and theories of individual differences in antisocial behaviour—I attempt to identify some determinants of progress. Conceptual progress appears to depend even more heavily than technological progress on developments in the more advanced sciences, supporting the idea that consilience plays a vital heuristic role in psychology.

Keywords: forensic psychology, scientific progress, consilience, actuarial risk appraisal, psychopathy

If politics is the art of the possible, research is surely the art of the soluble. Both are immensely practical-minded affairs. Good scientists study the most important problems they think they can solve. It is, after all, their professional business to solve problems, not merely to grapple with them.

—Medawar (1967, p. 7)

In a 1974 summary of his American Psychology Association presidential address, Donald Hebb described his conception of “What Psychology Is About.” He argued that all fields of psychology were part of a biological science of the mind looked at in the light of evolution. Although progress in psychology was slow, Hebb believed, it was accelerating and entirely dependent on scientific investigation. Scientific discovery in turn depended on a materialistic conception of the mind and on a deterministic conception of causality. Was Hebb correct in his recommendations for furthering intellectual progress in psychology? Forty years later, we may be able to offer an assessment (see Slingerland, 2008, for a recent and engaging discussion of reductionism). My purpose in

this paper is to provide an assessment of Hebb’s meta-theoretical views in the specialised area of forensic psychology.

History can be written from a presentist perspective, in which events are viewed and evaluated from our present vantage point or from a historicist perspective in which events are interpreted as contemporary observers viewed them (Wertheimer, 2000). The significance of events will of course vary with which view is adopted. *Whig history*, a term of abuse amongst historians, is a form of presentism in which the past is viewed as progress toward the present superior state of affairs.

Is it possible to rise above Whig history to evaluate scientific and intellectual progress meaningfully? Richards (1987), in his masterful *Darwin and the Emergence of Evolutionary Theories of Mind and Behaviour*, argued that we can. He noted (as have others) that the notion that people’s ideas are simply subjective or the result of social forces begs the question of why we should endorse this notion, after all, it’s just someone’s subjective idea determined by social forces. Surely, there is a more satisfying way to consider the history of scientific ideas.

Richards’ (1987) alternative selectionist view of intellectual history used the Darwinian theory of natural selection as a model in which ideas vary and compete for attention within individual minds and across individuals. Those that are more compatible with already existing ideas, are well promoted, garner their exponents approval and status, and/or solve intellectual or scientific problems will prosper over time. Favourable variations in ideas will further prosper. Although the analogy to natural selection is only approximate (much like Dawkins’, 1976, idea of memes), this selectionist view appears to be less problematic and more sophisticated than its competitors in that it allows the possibility of real progress in solving particular scientific problems without ignoring social and cultural influences on ideas and their proponents. This sort of evolutionary epistemology has a number of adherents within psychology, including Campbell (1960) with his blind variation, selective retention model and an important historian of psychology, Simonton (2002).

A useful distinction can be made between technology, which attempts to optimise some relationship, and science, which seeks to understand the causes of phenomena (Grove, 1989). Leahey (2001), following Thomas Nagel, characterised scientists as attempting to develop a “view from nowhere,” an abstract perspective that is independent of the observer. This perspective is used to elucidate the causes of observable phenomena. For example, the profession of clinical psychology is a technological enterprise in which an attempt is made to optimise or improve the mental health

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or adjustment of people, whereas clinical psychology as a science attempts to understand the etiology or cause of psychopathology or problems in adjustment. Technology or engineering can use science to optimise particular functions, whereas science can use technology (such as brain scanners) to discover causal relationships. The relationship between technology and science changes through time and advances in that one can lead to advances in the other (Grove, 1989).

With this background, I now turn to an evaluation of progress in three areas of forensic psychology—the legal disposition of mentally ill offenders, risk appraisal, and theories of individual differences in antisocial behaviour.

The Legal Disposition of Mentally Ill Offenders

The earliest statement of legal principle concerning mentally ill offenders is a response to a query from a Roman governor written by Marcus Aurelius about 179 CE and preserved in the Justinian Code (Spruit, 1998) in the following:

If you have clearly ascertained that Aelius Priscus is in such state of insanity that he is permanently out of his mind and so entirely incapable of reasoning, and no suspicion is left that he was simulating insanity when he killed his mother, you need not concern yourself with the question how he should be punished as his insanity itself is punishment enough. At the same time he should be kept in close custody, and, if you think it advisable, even kept in chains; this need not be done by way of punishment so much as for his own protection and the security of his neighbours. If however, as is very often the case, he has intermittent periods of relative sanity, you must carefully investigate the question whether he may not have committed the crime on one of these moments, and so have no claim to mercy on the ground of mental infirmity; and, if you should find that anything of this kind is the fact you must refer the case to us, so that we may consider, supposing he committed the act at a moment when he could be held to know what he was doing, whether he ought not to be visited with punishment corresponding to the enormity of his crime. (p. 316)

Since Marcus Aurelius' time, a variety of insanity tests have been proposed (Walker, 1968), including 16th-century England, Justice Tracy's very conservative "wild beast test" (no more understanding than a nonhuman animal) and Justice Hale's liberal test (less understanding than a child of 14). The basic idea in all was that to deserve punishment, usually execution, some mental capacity was required to have *mens rea* (a guilty mind or criminal intent).

The most common test in English speaking countries is some variant of the M'Naghton Rule. In 1843, a Scottish woodturner named Daniel M'Naghton shot the private secretary to England's prime minister. The medical opinion was unanimous that M'Naghton suffered from psychotic delusions and he was acquitted on account of insanity. Public outcry over this acquittal motivated the House of Lords to ask the judges of the Queen's Bench to clarify the question of the insanity defence. The judges promulgated the M'Naghton Rule:

At the time of committing the act, the party accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing or if he did know it, that he did not know that what he was doing was wrong. (Quen, 1981, p. 5)

This rule suggested that M'Naghton, who was believed to know that he was shooting a person unlawfully, should have been hung.

The current Section 16 of the Criminal Code of Canada (<http://www.efc.ca/pages/law/cc/cc.16.html>) states that

No person is criminally responsible for an act committed or an omission made while suffering from a mental disorder that rendered the person incapable of appreciating the nature and quality of the act or omission or of knowing that it was wrong.

A *mental disorder* is explicitly defined as a "disease of the mind." Marcus Aurelius and the 19th century English judges of the Queen's Bench would approve.

The insanity defence has always been controversial; in particular there have been recurring strenuous disagreements about whether the defence should be allowed in particular cases. These difficulties have led to many attempts at reform and changes to the legal rule. The history of the insanity defence in countries influenced by English common law has been a series of compromises between the utilitarian and the moralistic approaches to the problem of disposition (Walker, 1968). Sometimes the issue has been decided according to whether a penal or a mental hospital disposition was deemed more suitable and sometimes according to abstract legal principle. Nevertheless, broad historical trends in disposition have been independent of landmark legal cases.

Steadman et al. (1993) evaluated American attempts to reform the insanity defence during the 1980s. Reform efforts were designed to enhance the public's perception of community safety by reducing the number of insanity acquittals or preventing the early release of insanity acquitted from hospitals. Part of the motivation of these reforms stemmed from the (contested) belief that mentally ill offenders were particularly dangerous. It is not surprising that the belief remains contested because the relationship of major mental illness to violent crime is not entirely straightforward (see Quinsey, Harris, Rice, & Cormier, 2006, for a review). In general population surveys, mental illness is a modest correlate of aggression. Amongst offender populations, however, major mental illness appears to be a protective factor in follow-up studies because psychotic offenders are much less likely to commit new violent offences than highly antisocial (but nonpsychotic) offenders. Nevertheless, amongst psychotic individuals, violent behaviour is strongly associated with acute exacerbations of symptoms.

Steadman et al. studied two types of "front-end" or adjudication reforms, altering the test used and changing the burden of proof, and a variety of "back-end" or dispositional reforms that related to release decisions. Most of these changes had little or no effect. Reforms that abolished the insanity defence or introduced "Guilty but Mentally Ill" statutes were relatively ineffective in achieving their aims. Some offenders were so obviously and seriously mentally ill that some legal mechanism was invariably found to divert them to a psychiatric institution. Overall, Steadman et al. found that the insanity defence was raised at trial in only 1% of felony cases and led to an acquittal only 23% of the time. Moreover, attempts at reform often produced subtle and unintended consequences, leading Steadman et al. to conclude that reforms of the insanity defence should be informed by a "systemic perspective and solid empirical data, not the usual anecdote, hysteria, and hyperbole" (p. 152). Thusly, despite all of the arguments concerning the most appropriate wording of the insanity defence rule and policies regarding its implementation, it remains unclear whether such tinkering makes much difference.

The similarity in beliefs and the controversy about how mentally ill criminals should be treated across historical time is astonishing. The lack of conceptual progress has contributed to chronic difficulties in deciding on the appropriate disposition of mentally ill offenders. I draw the conclusion that beliefs concerning punishment, free will, and criminal responsibility, all part of our common folk psychology pertaining to moral reasoning, are poorly mixed with the technological issues of promoting community safety and deterrence in the insanity defence. In this connection, I do not mean the phrase “folk psychology” in any pejorative sense—our evolved theory of mind and its attendant notions of causal agency and blame are central to human sociality. The problem is that these slippery quasi-theoretical ideas are fatal to conceptual progress and prevent a straightforward application of prediction and intervention technologies. It would not be difficult to develop a technological solution to the disposition of offenders by focussing on risk appraisal and the optimal mix of treatment and supervision. This approach, however, would entail abandoning a moralistic approach and notions of criminal responsibility entirely. We are not likely to see such a solution in the foreseeable future.

Risk Appraisal

Traditionally, assessments of the dangerousness of convicted inmates or forensic psychiatric patients have been conducted by mental health professionals, usually psychiatrists, and aided by psychological tests of personality and intelligence. By the mid-1970s, these practises were challenged by a number of studies, most notably the widely publicized results of the Baxstrom follow-up of offenders released from a forensic psychiatric facility in New York State because of a judicial decision (Steadman & Coccozza, 1974). The results of the Baxstrom study and others suggested that the base rate of violent recidivism was too low to permit meaningful risk appraisal.

Worse was to follow. Quinsey and Ambtman (1979), for example, showed that experienced forensic psychiatrists appraising risk from condensed clinical files showed poor agreement amongst themselves whereas on average making the same risk appraisals as high school English teachers and basing their judgements on the same features of the file (the nature of the index offence and the offenders' prior histories). Postadmission assessment data (psychiatric and psychological reports, nursing notes on institutional conduct, etc.) had no effect on the appraisals of either psychiatrists or teachers. These findings were later replicated with other mental health professionals (Quinsey & Cyr, 1986) and in a prospective release study showing that unaided clinical prediction by institutional forensic clinicians continued even when more valid actuarial methods were available (Hilton & Simmons, 2001).

Forensic practise through the mid-1990s, however, remained much as it had for many years—forensic clinicians would interview an offender, review the offence description and history of institutional conduct, read the psychological testing reports, and come up with a qualitative opinion about risk. Risk appraisal based on clinical judgement was a fundamental part of the work undertaken by forensic clinicians and there were no feasible alternatives in sight. The prospects for any method of predicting violent and sexual recidivism appeared bleak because a large number of follow-up studies found a low base rate of violent recidivism and only low to moderate correlations between outcome and predictors

derived from criminal histories or psychological tests. Megargee (1970) famously declared that no psychological test had been shown to predict violent offending and Monahan (1981) concluded that predictions of future violent behaviour by forensic professionals were accurate in no more than two out of three cases.

Continuing research, however, slowly began to indicate that the base rate problem was not as intractable as it had appeared. It was shown mathematically, for example, that base rates quickly rose amongst offenders who had been repeatedly passed over for release when held under indeterminate conditions, even when the accuracy of risk appraisal was quite modest (Quinsey, 1980). These calculations subsequently received empirical support in follow-up research (Quinsey & Maguire, 1986). Still further follow-up studies demonstrated that base rates of violent and sexual reoffending were high enough in a wide variety of offender populations to permit useful prediction when the follow-up period was long enough. The last impediment to a successful prediction enterprise was removed with the identification of an appropriate measure of predictive accuracy (the receiver operator characteristic or ROC) that could replace the sometimes misleading measures of association, such as correlations, that investigators had been using (Rice & Harris, 1995). Use of the ROC statistic permitted the empirical demonstration that actuarial instruments, such as the Violence Risk Appraisal Guide (Harris, Rice, & Quinsey, 1993), produce large effect sizes and were accurate enough to be used in making dispositional decisions based on risk.

Further follow-up studies replicated findings on the accuracy of actuarial prediction of violent recidivism and generalised them to new populations, such as federally sentenced sex offenders, developmentally handicapped individuals, and civilly committed psychiatric patients (Harris et al., 2003; Quinsey, Harris, Rice, & Cormier, 2006). Investigators have recently invested more energy in studying the measurement of variations in short-term risk associated with phenomena that change during periods in which there are opportunities to reoffend (e.g., Quinsey, Jones, Book, & Barr, 2006; Zamble & Quinsey, 1997). Eventually, dynamic prediction may be sufficiently well developed to assist in managing the changing risk posed by supervised offenders.

At present, actuarial methods of appraising the long-term risk of recidivism are the most accurate known. Although there are variations in the accuracy of the many actuarial instruments that have been devised, such as the Statistical Information on Recidivism Scale (Nuffield, 1982), and the Static-2000 (Hanson & Thornton, 2000¹), all actuarial instruments correlate positively with one another (variations in accuracy are partly related to how accurately the items in them are scored and partly to the specific outcomes the instruments are designed to predict). It seems that any reasonably diverse set of individual (as opposed to aggregate) correlates of crime can be used but that those relating to early criminal or aggressive behaviour,¹ such as age at first arrest, and those relating to the pervasiveness of antisocial behaviour, such as Psychopathy

¹ Predictors of early antisocial behaviour probably work well in the assessment of late adolescent or adult offenders because they are by definition a measure of persistence or continuity of antisocial conduct, given the later offense history. Note that this is a very different matter than predicting adolescent and adult criminal propensity from childhood history alone.

Checklist-Revised (PCL-R; Hare, 2003), are amongst the most useful.

The accuracy of prediction raises questions about the relationship between actuarial instruments and theories of violent or sexual offending. The relationship or lack thereof is not as straightforward as it may first appear. An actuarial method simply involves making probabilistic predictions based on outcomes from previous cases. The items of an actuarial instrument, however, need not be atheoretical—one could use only items that have a demonstrably causal relationship to criminal behaviour. In addition, the identification of stable individual differences in risk does not imply that life events, such as mood variations, disappointment, and provocation, lack causal status. Over a period of years, many such events are likely to occur—differences in actuarially appraised risk are likely related to individual's differential sensitivity to, or ability to cope with, environmental triggers (Zamble & Quinsey, 1997).

At present, theories in psychology, even if well developed and consilient with theories in the more advanced sciences, seldom yield numerical predictions regarding the behaviour of individual participants. With very few exceptions, psychological theories are verbal and relative (they relate to qualitative, ordinal, or relative probabilistic outcomes) and do not predict absolute numbers of anything. Psychological theories therefore require optimising or “actuarializing” to generate numerical probability estimates. Actuarial instruments for the prediction of violent or sexual recidivism over a period of years achieve ROCs above .80 under optimal conditions (Harris, Rice, Quinsey, Lalumière, Boer, & Lang, 2003). Because outcomes are imperfectly measured in recidivism research, the ceiling for accuracy is far less than perfection, implying that it is unlikely that new methods of prediction of long-term outcome, regardless of how developed, will result in greatly improved accuracy. On the other hand, causal theories are appealing because they sometimes suggest interventions to reduce an individual's likelihood of committing crimes. Indeed, program evaluation research can serve to test causal theories of criminal recidivism. These uses of causal theories, however, are rather different from those of actuarial prediction models and do not depend on a precise estimate of an individual's risk.

There is a very large literature on risk appraisal—I have mentioned above only illustrative studies taken largely from the work of my colleagues and me (see Quinsey, 2008, for a history of our program of research). This literature demonstrates the lawfulness of antisocial behaviour and the progress that can be made in the technological business of prediction that results from dogged data collection and attention to improved statistical methods. The lawfulness revealed by actuarial prediction studies encourages theoretical explanation.

Individual Differences in Antisocial Behaviour

Sir Cyril Burt (1883–1971), a British psychologist, was famous for his work on intelligence. He is also infamous because of posthumous accusations that he fabricated data on the inheritance of intelligence when in his declining years (Rushton, 2002). In his early career, Burt assessed a large number of delinquents, formulating views that were presented in his 1931 book, *The Young Delinquent*. Burt's views are worth considering for us to evaluate how much the field has changed over the intervening 77 years.

Burt identified four broad domains of correlates of delinquency: low intelligence, temperamental instability, family influences, and delinquent associates. More specifically and in descending order of importance, he listed: defective discipline, hypersexuality and acquisitiveness, general emotional instability, mild psychopathology, family criminality, risk taking, adolescence and precocious growth, low intelligence in family, single parent family, delinquent associates, family history of mental illness, family history of poor health, poverty, and poor health. Burt believed that, although heredity was important in explaining criminality, it acted indirectly through intelligence and temperament. He concluded that the home environment was more important than influences outside the home: for example, discipline in the home appeared to be more important than poverty. Burt called for more etiological research.

Burt's views make it clear that, by the thirties, astute psychologists could discern the major correlates of crime and recognise that some characteristics of offenders were heritable.² Burt, however, had no articulated theory of crime and certainly no specific interventions, although he recommended early treatment, as was common at the time in the progressive movement (Rothman, 1980). Because many of the correlates of crime were known early in the 20th century, it is odd that theories of crime concentrated on explaining its links with poverty and social class, essentially ignoring its most obvious correlates—age and sex. The variations in criminality as a function of age and sex had first been observed in the 19th century by the Belgian mathematician, Adolphe Quetelet, and have been seen so often that they became known as the *fundamental data of criminology*.

The fundamental data of criminology are invaluable scientifically, not only because the relationships they reveal are ubiquitous and replicable, but because they exert powerful constraints on theories of antisocial behaviour: A successful theory must simultaneously explain why the level of criminality is higher for males than females and why it is highest in late adolescence and early adulthood for both sexes. A satisfactory theoretical approach was not developed until the 1980s (Daly & Wilson, 1988a; 1988b). Building on Daly and Wilson's evolutionary theories, particularly those applied to homicide, Kanazawa and Still (2000; Kanazawa, 2003) explained the age variations in crime as resulting from the difference between the reproductive benefits and costs of intra-sexual competition as a function of age, in which the benefits rise more steeply with age than the costs until early adulthood. The sex difference itself results from greater male than female variance in reproductive success and the attendant differences in propensities to engage in risk taking and competition. Spectacular illustrations of historical variation in male reproductive success required by the theory can be found in the genetics literature (Moore, McEvoy, Cape, Simms, & Bradley, 2005; Zerjal et al., 2003).

There are, however, marked individual differences in antisocial propensities apart from age and sex—in particular, there are some highly antisocial individuals who become aggressive and antisocial early in life and persist. Although some individuals who are life course persistent (Moffitt, 1993) exhibit neurodevelopmental

² As a striking historical example, Cesare Lombroso, the Italian criminologist, made the now common distinction between adolescent-limited and life course persistent criminality and discussed the interaction of heredity and environment (Rafter, 2005).

anomalies that, in Darwinian terms, place them at competitive disadvantage, the most persistent and the most resistant to therapeutic intervention are psychopaths. There is now overwhelming evidence that psychopathy is highly heritable (e.g., Larsson, Andershed, & Lichtenstein, 2006). The constellation of traits comprising psychopathy, such as callousness, promiscuity, and criminal versatility, are well-known and my colleagues and I have considered them as indicators of a frequency-dependent Darwinian life history strategy (Barr & Quinsey, 2004; Quinsey, Skilling, Lalumière, & Craig, 2004; Seto, Khattar, Lalumière, & Quinsey, 1997; Seto & Quinsey, 2005). Items from the PCL-R (Hare, 2003) and items formed from the criteria for the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 1994) antisocial personality disorder have been found to be taxonic (Harris et al., 1994; Skilling et al., 2002; cf. Vasey, Roman, Frick, & Loney, 2005)—thusly, highly antisocial individuals are different in kind rather than degree from others. The identification of a natural class or taxon has potentially important implications for the identification of the etiology of this condition. As Viding, Jones, Frick, Moffit, and Plomin (2008) concluded from their behaviour genetic study demonstrating the high heritability of psychopathic-like traits in children: “The findings presented in this paper add to the growing body of literature suggesting that antisocial children with [callous unemotional] traits are a distinct subtype, with different aetiological origins to their antisocial behaviour” (p. 20).

Sexual behaviour is closely associated with delinquency and crime (see Lalumière, Harris, Quinsey, & Rice, 2005; Walsh & Wu, 2008, for reviews). A Darwinian view suggests that psychopaths may employ a unique reproductive strategy involving early, frequent, and coercive sex. In a sample of sex offenders, Harris, Rice, Hilton, Lalumière, and Quinsey (2007) found that variables reflecting early, frequent, and coercive sex loaded on the same principal component as PCL-R items in exploratory factor analysis, whereas PCL-R items pertaining to adult sexual behaviour did not. Confirmatory factor analysis of the remaining subjects yielded a measurement model containing three intercorrelated factors—the traditional two PCL-R factors (selfish/callous personality traits and antisocial lifestyle) and coercive/precocious sexuality. Taxometric analyses gave evidence of a natural discontinuity underlying coercive and precocious sexuality. Coercive and precocious sexuality yielded statistically significant associations with other study variables predicted by the Darwinian hypothesis.

Taken together, these findings (as well as the more recent results of McCrory, Hickey, Farmer, & Vizar, 2008) support the idea that psychopathy represents a nonpathological, reproductively viable, alternate life history strategy. Psychopaths form a genetically influenced and relatively common discrete natural class of individuals who possess a suite of traits that appear designed to promote early reproduction and an aggressive and exploitative approach to social interactions.

Individual differences other than psychopathy are relevant to sexual coercion as well. In particular, men who have been arrested for rape exhibit greater phallometrically measured interest in descriptions of brutal rapes (in comparison to interest in consensual sex) than other men, whether nonsexual offenders or community volunteers (see Lalumière, Quinsey, Harris, Rice, & Trautrimas, 2003, for a meta-analytic review). The combination of psychopathy and phallometrically measured sexual deviance is uniquely

related to high rates of sexual recidivism (e.g., Rice & Harris, 1997).

Understanding forensically significant variations in male sexual preference, such as an interest in sexual coercion amongst rapists or in immature body shapes amongst pedophiles, has benefitted from research on anomalies of sexual preference more generally. Most of what we know about variations in the development of sexual preference amongst males comes from the study of a nonforensic behaviour, male homosexuality. Recent research (see Quinsey, 2003, for a review) supports the idea that anomalous sexual preferences (those that are unrelated or negatively related to reproductive success) arise from perturbations of the neurohormones involved in the in utero masculinization of the male brain. Perhaps the clearest evidence for the neurohormonal theory comes from the fraternal birth order effect—men are more likely to have homosexual preferences the greater their number of older brothers born to the same mother (Blanchard & Bogaert, 1996; Bogaert, 2006). Although much work is yet to be done, it appears that neurohormonal perturbations are the final common path in the development of homosexual preferences in men. A major issue remaining is how genetic and environmental influences make upstream contributions to this developmental trajectory.

Progress in understanding the development of heterosexual and homosexual preferences in men, however, has not yet greatly affected the study of forensically significant variations in sexual preferences, such as pedophilia and sexual sadism. There are now therefore great opportunities for genetic, neuroscientific, and developmental studies of these forensically significant preferences.

Conclusions

Progress in forensic psychology has been rapid in some areas and nonexistent in others. Technological progress is closely linked to improvements in gathering data (such as computers and imaging) and new statistical and mathematical techniques. Conceptual progress, unlike technological progress, appears to depend heavily on developments in the more advanced sciences, such as developmental biology, genetics, and evolutionary biology, supporting Wilson's (1998) idea that consilience plays a vital heuristic role in the behavioural sciences. Donald Hebb (1974), with his neuroscientific interests and view of psychology as a biologically based behavioural science, would have approved of this conclusion.

Résumé

Les progrès en psychologie médico-légale ont été rapides dans certains secteurs et inexistant dans d'autres. En contrastant les progrès technologiques et scientifiques dans trois secteurs—la disposition légale des contrevenants avec des troubles mentaux, l'évaluation du risque et les théories des différences individuelles dans les comportements antisociaux—je tente d'identifier certains déterminants du progrès. Les progrès conceptuels semblent dépendre plus fortement des développements dans les sciences plus avancées que les progrès technologiques, appuyant l'idée que la consilience joue un rôle heuristique vital en psychologie.

Mots-clés : psychologie médico-légale, progrès scientifique, consilience, évaluation actuarielle du risque, psychopathie

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