

FORENSIC PSYCHOLOGY AND FORENSIC SCIENCE: A Proposed Agenda for the Next Decade

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The field of forensic psychology has matured as a discipline, having made considerable progress toward the goal of a close integration of foundational science with practice. Substantial challenges remain, however. This article first reviews the progress of the discipline over the past 3 decades by considering the recommendations made by previous commentators (Grisso, 1987; Otto & Heilbrun, 2002; Poythress, 1979) and the extent to which identified priorities have been met. Next, it analyzes a recent multidisciplinary report addressing the current state of forensic science in the United States (National Research Council, 2009), using the recommendations from this report as another source of guidance for tracking the progress in forensic psychology. Finally, it identifies important priorities for the field of forensic psychology for the next decade in light of this discussion.

Keywords: forensic psychology, forensic sciences, review, priorities, proposed agenda

Forensic psychology has developed substantially as a field during the past 3 decades. Its growth and maturation is reflected in multiple indicators of the healthy development of a specialization. These include the development of interdisciplinary journals such as *Behavioral Sciences and the Law*, *Criminal Justice and Behavior*, the *International Journal of Forensic Mental Health*, and *Law and Human Behavior*, as well as the publication of relevant research in more mainstream journals such as *Assessment*, *Psychological Assessment*, *Journal of Applied Psychology*, *Journal of Consulting and Clinical Psychology*, *Psychological Bulletin* and *Psychology, Public Policy, and Law*. The American Psychology–Law Society (AP-LS), the leading interdisciplinary scientific organization in North America, holds annual conferences and occasionally coordinates joint meetings with the European Association of Psychology and Law and the Australian and New Zealand Association of Psychiatry, Psychology, and Law. AP-LS has a book series in which 28 volumes have been published since 1977, with another eight in preparation or in press (Ronald Roesch,

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An earlier version of this article was presented at the Annual Conference of the American Psychology–Law Society/American Psychological Association Division 41. It was delivered by Kirk Heilbrun, who received the Beth Clark Award for Distinguished Service from the American Academy of Forensic Psychology.

We acknowledge the many contributions of Beth Clark, who died in 2004, to the field of forensic psychology. We also thank Mary Alice Conroy, Brian Cutler, Alan Goldstein, Tom Grisso, Al Heilbrun, John Monahan, Randy Otto, and Jennifer Skeem for their thoughts concerning the ideas expressed in this article. Finally, we acknowledge the American Academy of Forensic Psychology and the American Psychology–Law Society as leading organizations in the field to which these comments are directed.

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personal communication, July 20, 2009). “Forensic psychology” has been approved as an applied area of specialization by the American Psychological Association (APA) since 2001 (APA, 2009). Postdoctoral fellowships in forensic psychology can now be accredited by the APA (AP-LS, 2009a, 2009b). Psychologists specializing in forensic practice can be certified through the American Board of Professional Psychology, and high-caliber continuing education has been provided for years by the American Academy of Forensic Psychology. There is a Psychiatry and Behavioral Science section of the American Academy of Forensic Sciences, which is perhaps the most interdisciplinary organization available to forensic psychologists.

Taken together, these indicators suggest that forensic psychology is a vibrant, established specialty that nonetheless has the potential for considerable additional growth. Moreover, there are further challenges that must be addressed to strengthen the existing empirical foundation sufficiently to guide many of the decisions made in practice. The current debate regarding the importance of empirically validated treatment (see Beutler, 2004; Lilienfeld, 2002; but cf. Fox, 2000; Levant, 2004) is particularly applicable to the nature of the evidence provided by forensic psychologists. The standard for admissibility of expert evidence that is “generally accepted” in the field (*Frye v. United States*, 1923) has yielded to a broader standard incorporating the “testability” and results of empirical evidence for both scientific (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 1993) and technical (*Kumho Tire Ltd. v. Carmichael*, 1999) evidence in the federal and many state jurisdictions. Moreover, not only can appellate courts in civil litigation remand cases for a new trial when reviewing expert evidence that is not appropriately scientific, but they also can direct a verdict for the defendant—suggesting that plaintiffs should be attentive to obtaining scientifically strong expert evidence from the beginning (*Weisgram v. Marley Co.*, 2000; for a broader discussion, see Faigman & Monahan, 2009).

In this article, we explore these challenges and propose a research and practice agenda for the next decade. We do so by reviewing three articles that have considered the needs of the field and identified priorities for it—Poythress (1979), Grisso (1987), and Otto and Heilbrun (2002)—and by discussing how developments in the field have actually addressed these identified priorities. Next, we consider an important report recently released by the National Research Council (NRC; 2009) that describes current limitations and priorities for improvement in the practice of “forensic science” disciplines. (The domain of forensic sciences covered by the report does not include psychology. However, it is certainly feasible that it could—there is a Psychiatry and Behavioral Science section within the American Academy of Forensic Sciences. Moreover, it is useful to consider how identified weaknesses and compensatory priorities might apply to forensic psychology). Finally, in light of the priorities identified in each of these four sources, we offer suggestions for how the field of forensic psychology can maximize the influence of science and improve the quality of practice in the next decade.

Forensic Psychology: A Question of Definition

One of the fundamental questions concerning forensic psychology that was particularly prominent in the 1990s concerned the definition and contours of the

field (Brigham, 1999). Forensic psychology was defined by the Specialty Guidelines for Forensic Psychologists (SGFP; Committee on Ethical Guidelines for Forensic Psychologists, 1991) as professional practice by psychologists, within any subdiscipline of psychology (e.g., clinical, developmental, social, experimental) when engaged regularly as forensic psychologists (pp. 656–657).¹

This broad definition, encompassing all subdisciplines within psychology, is consistent with that used by the American Board of Forensic Psychology (“the application of the science and profession of psychology to questions and issues relating to law and the legal system”—see <http://www.abfp.com/>) and some prominent textbooks in forensic psychology (e.g., Bartol & Bartol, 2008; Wrightsman & Fulero, 2005). Other works (e.g., Heilbrun, 2001; Huss, 2009; Melton, Petrila, Poythress, & Slobogin, 1987, 1997, 2007) have used a narrower definition of forensic psychology encompassing the application of clinical, counseling, school, and neuropsychology in legal contexts, which is consistent with that agreed upon by the AP-LS and the American Board of Forensic Psychology in their joint submission of a petition to APA for the approval of forensic psychology as an applied specialty. (However, even works using a narrow definition have acknowledged the importance of services delivered to the legal system by social, cognitive, developmental, and human experimental psychologists).

This definition is important. As we review the status of the field and consider the extent to which existing science provides a foundation for practice, our analysis may suggest the need for additional regulation involving psychological consultation to the courts. When such activities are conducted by clinically trained psychologists (clinical, counseling, and school psychologists, as well as neuropsychologists), they are already regulated by state licensing boards. However, it is important to consider whether other applied activities such as consultation on jury selection or testimony on the “state of the science”—activities that are likely to be performed by social, cognitive, developmental, or human experimental psychologists—should also be included within the scope of activities needing strong scientific support and possibly additional regulation.

For two reasons, we use the broad definition of forensic psychology contained in the SGFP. First, the SGFP are intended to apply to the entire field and, thus, provide a strong precedent for using such a broad definition. Second, our discussion incorporates the NRC (2009) report on forensic science, which would apply as well to social, cognitive, developmental, and human experimental psychology as it would to clinical psychology. However, it is important to note that many of the issues discussed in this article (and most of the focus of the NRC report) are primarily within the scope of the narrower definition of forensic psychology. We explicitly call for a broadening of the field—but some of the implications of such broadening, and their relationship to the NRC report, are beyond the scope of the present article.

¹ The most recent edition of the revised SGFP contains substantially similar language: Forensic psychology “refers to all forensic practice by any psychologist working within any sub-discipline of psychology (e.g., clinical, developmental, social, cognitive)” (Committee on the Revision of the SGFP, 2008, p. 18). It seems likely, therefore, that this definition of forensic psychology as including “any subdiscipline of psychology” will be retained when the revised version of the SGFP is finally approved.

A Proposal for Training in Forensic Psychology (Poythress, 1979)

In one of the earliest attempts to describe forensic psychology as a specialization and simultaneously identify training needs, Norman Poythress (1979) wrote an article appearing in the *American Psychologist*, suggesting that specialized training be provided in four specific domains. These included (a) legal tests and concepts, (b) assessment, (c) relevant literature, and (d) courtroom orientation. He further proposed that graduate training in forensic psychology include an introductory course; topical seminars in criminal law, civil law, and child/juvenile law; and field placement. Notably, he did not limit this proposal to training in the clinical aspects of forensic psychology; it included reference to field placements for researchers who might be interested in various empirical questions related to the functioning of the legal system.

An update and “progress report” on the Poythress proposals has recently been provided by DeMatteo and colleagues (DeMatteo, Marczyk, Krauss, & Burl, in press), who surveyed 35 doctoral and JD–PhD programs to determine the extent to which the Poythress domains are integrated into the respective training programs. DeMatteo et al. surveyed the status of a total of six domains: (a) substantive psychology (including core psychology courses); (b) research design/methodology and statistics; (c) research experience; (d) legal knowledge; (e) integrative law–psychology knowledge; (f) ethics and professional issues (both general and specific to forensics); and (g) clinical forensic training. Of the 35 programs surveyed, three included all seven domains and another 40% of programs offered at least one law school course. Many programs provided training in a large proportion of these domains. More specifically: (1) All programs offered coursework in “integrated law–psychology knowledge,” (2) 60% offered a forensic assessment course, (3) about 30% offered a forensic intervention course, (4) 40% offered at least one course in legal knowledge, but (5) only three programs offered a course in forensic ethics. This survey reflects fairly substantial progress toward the goals described by Poythress 30 years ago. To put this number of specialty programs in perspective, consider the total number of psychology graduate programs. There are currently 10 programs in combined professional–scientific psychology, 234 clinical programs, 72 counseling programs, and 60 school psychology programs accredited by the APA (2008). The total of 35 forensically oriented programs (about 22 of which are in the clinical area) is a respectable minority within this total—but there is clearly room for expansion.

The Economic and Scientific Future of Forensic Psychological Assessment (Grisso, 1987)

The next *American Psychologist* article relevant to the field’s development appeared in 1987, as Tom Grisso identified three particular priorities for the field. Grisso focused on one particular activity (forensic psychological assessment) that is almost entirely within the clinical forensic domain. To promote the scientifically based development of such assessment, he suggested, would require three important steps: (a) producing incentives for research independent of current normative practice in forensic assessment; (b) creating new standards of forensic practice independent of judicial criteria; and (c) educating the legal consumer.

Progress on each of these goals between 1987 and 2009 might be described as mixed. Certainly there has been a very substantial increase in books and journal articles devoted to forensic topics. The greater integration of forensic psychology within the larger field has meant that those conducting forensic research have received academic and professional recognition, although the availability of extramural funding has been more limited than might have been hoped. Some sources of authority relevant to standards of practice—the SGFP (Committee on Ethical Guidelines for Forensic Psychologists, 1991), the Guidelines for Child Custody Evaluations in Divorce Proceedings (APA, 1994), and the Guidelines for Psychological Evaluations in Child Protection Matters (APA Committee on Professional Practice and Standards, 1998)—have been developed within the field, but a comprehensive range of practice guidelines for various kinds of forensic mental health assessment (FMHA) has not. Education of legal consumers, whether through law school coursework, presentations at conferences, continuing legal education workshops, or publications, has increased considerably but remains a relatively minor aspect of legal education and continuing education.

Forensic Psychology: A Look Toward the Future in Light of the Past (Otto & Heilbrun, 2002)

Fifteen years after Grisso's discussion of three broad priorities, another article in a similar vein (Otto & Heilbrun, 2002) noted a number of positive aspects of the development in the field. Forensic psychology had matured from a young, emerging specialization into a more established field. As with Grisso's earlier article, certain priorities were identified that were intended to promote the field's development through encouraging better practice, clearer integration between science and practice, and more intensive education of various constituencies. In particular, Otto and Heilbrun called for (a) the development of practice standards; (b) enhanced treatment focus; (c) better integration with other APA divisions and stakeholders; (d) intensified training of judges, attorneys, administrators, and policymakers; and (e) wider dissemination of information within forensic psychology training at predoctoral, internship, fellowship, and postdoctoral levels to promote specialized, proficient, and informed levels of practice. What has occurred in each of these areas since 2002?

Practice Standards

There has been limited development of what might be termed *practice guidelines* in forensic psychology in the past decade. One reason may involve current APA policy regarding the development and implementation of practice guidelines, which makes this a very labor-intensive process.² The need for practice guidelines must be clearly described; they must be drafted by a professional body with some standing and finally undergo a lengthy period of internal

² APA distinguishes between ethical *standards*, which are contained within the Ethical Principles of Psychologists and Code of Conduct and are enforceable, and ethical *guidelines*, which are aspirational and hence not enforceable through the APA process. Nevertheless, practice guidelines may influence practice in various ways described in more detail subsequently when such guidelines are endorsed by APA.

and public review, during which they are subject to substantial revision (APA, 2005). This procedure makes it difficult and time consuming to publish APA-endorsed guidelines (Heilbrun, DeMatteo, Marczyk, & Goldstein, 2008). Although there are APA guidelines for child custody evaluations (APA, 1994) and child protection evaluations (APA Committee on Professional Practice and Standards, 1998), this number is much smaller than would be justified by the number of different legal questions that are informed by assessments provided by psychologists.

Contrast this with the approach currently being taken by the American Academy of Psychiatry and the Law (AAPL), which, to date, has developed practice guidelines for evaluation of insanity (AAPL, 2002), competence to stand trial (Mossman et al., 2007), and psychiatric disability (Gold et al., 2008). Each has undergone a review-and-revision process. However, the reviewing body is a specialized forensic organization (the AAPL) rather than a larger group with multiple constituencies, such as the APA. This may decrease the heterogeneity and limit the diversity of perspectives that must be satisfied to obtain an organization's endorsement.

Consider the content of the AAPL practice guidelines using competence to stand trial (Mossman et al., 2007) as an example. The guidelines provide an overview of competence to stand trial accompanied by relevant history and significant case law. Applicable ethical considerations are described, including dual roles, knowledge of the legal system and relevant legal constructs, honesty and objectivity, confidentiality and consent, and fees. The guidelines then describe the process of conducting forensic evaluations, including topics such as how to obtain various forms of collateral information and the use of specialized adjudicative competence tools. A sample report, with important elements in each section, is provided. Finally, there is discussion of how these guidelines may be adapted to evaluating juveniles.

Within forensic psychology, there has been an attempt to describe "best practice" just as practice guidelines might through the Oxford University Press series on "Best Practice in Forensic Mental Health Assessment" (see, e.g., Heilbrun, 2009; Heilbrun, Grisso, & Goldstein, 2009; Kruh & Grisso, 2009; Packer, 2009; Witt & Conroy, 2009; Zapf & Roesch, 2009). The authors of these volumes describe relevant law, science, ethics, and other influences on best practice. This series is not associated with a very large professional organization such as the APA and, thus, cannot reasonably claim endorsement by the entire profession. However, the Oxford series does have the endorsement and collaboration of the American Academy of Forensic Psychology, a leading organization in continuing education within forensic psychology.

If practice guidelines are to have a substantial impact on improving forensic practice, then they must be (a) adopted by an organization with the authority to enforce violations, (b) incorporated into a document used by an organization with regulatory authority, or (c) sufficiently representative of the field's standard of practice to inform courts' determinations of the standard of care in malpractice litigation (Heilbrun et al., 2008). The APA does consider ethical complaints against psychologists. However, such consideration relies on the standards within the Ethical Principles of Psychologists and Code of Conduct (EPPCC; APA, 2002), although other documents (even guidelines approved through the APA

process) are treated only as advisory. On the other hand, some state licensure boards have adopted guidelines approved through this process (e.g., the Guidelines for Child Custody Evaluations in Divorce Proceedings; APA, 1994) as a formal part of their regulatory scheme, effectively giving them status comparable with that of the EPPCC. If the SGFP revision is formally approved through the APA process, it is possible that their contribution to the regulation of practice complaints provided by licensure boards will be enhanced in this fashion.³

Enhanced Treatment Focus

Otto and Heilbrun (2002) noted that the advances in assessment observed in the 1980s and 1990s were not paralleled by commensurate advances in legally relevant interventions. This appears to have changed to some extent during the past decade. The significant growth in two particular areas—specialty courts and re-entry from prison to the community—are summarized briefly in this section.

Drug courts, mental health courts, and other specialty courts have gained popularity in recent years (Burrell, 2004). According to the National Drug Court Institute, there were 2,301 drug courts in operation at the end of 2008 (National Drug Court Institute, 2009), including juvenile, adult, family, and tribal drug courts. There has been meta-analytic support for the effectiveness of these drug courts in the reduction of recidivism (Aos, Miller, & Drake, 2006; Latimer, Morton-Bourgon, & Chretien, 2006; Lowenkamp, Holsinger, & Latessa, 2005; Shaffer, 2006; Wilson, Mitchell, & MacKenzie, 2006). Recent research has focused on which populations are best served by these programs and what type of judicial supervision is most effective (Butzin, Saum, & Scarpitti, 2002; DeMatteo, Marlow, Festinger, & Arabia, 2009; Marlowe, Festinger, Lee, Dugosh, & Benasutti, 2006). Recently, the Bureau of Justice Assistance described the existence of 150 mental health courts (Bureau of Justice Assistance, 2009). There is some evidence that mental health courts are an effective alternative to incarceration (Trupin & Richards, 2003), although this is less clear than for drug courts, and further research and refinement of the model is needed (Steadman & Redlich, 2005).

Re-entry services, provided to incarcerated individuals who are returning to the community, have also been the focus of increased attention and research during the past decade (Harrison & Beck, 2006; Petersilia, 2001). A number of researchers have described the conceptual foundation of re-entry programming, including the various phases and components of re-entry services. There is also empirical support for the effectiveness of certain re-entry initiatives (Bouffard & Bergeron, 2006; Seiter & Kadela, 2003; Zhang, Roberts, & Callanan, 2006), although it is important to describe the conceptual foundations and specific goals for re-entry services provided at different stages (Bazemore & Stinchcomb, 2004; Draine & Herman, 2007; Sipes, 2008; Taxman, 2004; Taxman, Young, Byrne, Holsinger, & Anspach, 2003). Re-entry has become an important stage for

³ Indeed, one state (Pennsylvania) has adopted the *Guidelines for Child Custody Evaluations in Divorce Proceedings* as a formal part of their regulatory standards that are applied when considering complaints against the practice of psychologists performing child custody evaluations in Pennsylvania.

treatment services delivered in legal contexts, including specialized populations such as offenders with serious mental illness (Draine & Herman, 2007; Farnworth & Muñoz, 2009).

In a related vein, there has been increased empirical attention to community-based treatment for juveniles (Skowrya & Cocozza, 2006; Tate & Redding, 2005). An important component of effective community-based treatment is collaboration among agencies and service providers, which has been reflected in a number of the newer treatment programs for juveniles (Tate & Redding, 2005). Although multisystemic therapy is perhaps the best known and most intensively researched of these community-based interventions for juveniles, there are several other approaches that incorporate multimodal interventions in a family and a multisystem context (for a review, see Sheidow & Henggeler, 2005). Such approaches have demonstrated effectiveness in reducing such outcomes as recidivism, out-of-home placement, and drug use.

Wider Dissemination of Forensically Relevant Information Within Psychology

The past 7 years have also seen an increase in the available educational and training opportunities in forensic psychology. For instance, a version of the Resource Directory of Forensic Psychology Predoctoral Internship Training Programs compiled in 2001 (AP-LS & American Academy of Forensic Psychology, 2001) identified 53 doctoral internship sites with a significant forensic component, although the 2006 updated version identified 59 such programs (AP-LS, 2006). The number of law-psychology and doctoral-level training programs has increased as well (DeMatteo, Marczyk, Krauss, & Burl, in press).

Despite this increase in forensic psychology educational opportunities, there is limited uniformity in the core elements of such programs (DeMatteo et al., in press). This may be changing, at least on the postdoctoral level. In 2007, the Forensic Specialty Council (which represents forensic psychology in the Council of Specialties, a group of representatives of specialization areas within applied psychology that is supported by both APA and the American Board of Professional Psychology) proposed and received approval from the Council of Specialties for accreditation guidelines for postdoctoral forensic fellowships (Forensic Specialty Council, 2007). This will allow postdoctoral fellowships to become APA accredited if they provide didactic, research, and applied training in basic legal principles, forensic evaluation, and expert testimony. It is an important step toward providing greater consistency in the foundational aspects of training in forensic psychology.

There has been discussion, although less movement, regarding increased uniformity of training at the doctoral level. Currently, APA accredits doctoral programs only in the areas of clinical, counseling, and school psychology or some combination of these three. It is not possible to receive accreditation for a doctoral program in “forensic psychology”—specialty programs must receive accreditation in one of these areas while offering additional specialized training. There is considerable flexibility for programs to define themselves in “concentration” areas while still meeting basic criteria for accreditation. The review of current applied programs offering training relevant to a forensic concentration (DeMatteo et al.,

2009) suggests that there has been considerable expansion in the number of programs addressing such domains since Poythress (1979) first proposed them—but there also remains considerable room for further expansion.

2009: Status as a Field and Possible Directions

It has now been nearly a decade since Otto and Heilbrun (2002) wrote their review. Considering the current status of their recommendations, as well as the earlier identified priorities of Grisso (1987), is encouraging. On many of these priorities, there has been substantial progress. The field has matured; the recognition of the importance of the foundational science is stronger, and we are closer to identifying best practices across a range of legal contexts that are addressed by forensic psychology research and practice.

Certainly there are major challenges remaining. Untrained or unskilled individuals, motivated by economic influences, should not provide forensic services. Disciplinary and subdisciplinary boundaries, if considered rigidly, may interfere with the acquisition of broadly applicable forensic skills. Certainly greater interaction between those in different subfields within psychology has the potential for promoting creativity and addressing broadly applicable empirical questions. Such boundaries can affect practice differences across jurisdictions, countries, and cultures, so greater international collaboration may yield similar benefits. Uniform approaches to practice across such boundaries and disciplines are not always indicated—but more consistency in approaching similar questions, yielding reliability and validity estimates through empirical research, is needed to promote a more scientific approach to forensic practice.

Forensic psychology cannot flourish in a bubble. The movement toward international conferences and organizations was a logical step after the earlier recognition of the importance of interdisciplinary thinking. However, “interdisciplinary” has primarily meant the interaction of the law and disciplines such as psychology, psychiatry, and criminology. The consideration of how the law interacts with *other* scientific disciplines, such as chemistry and biology, has not heretofore been an important part of the development of forensic psychology.

It is both exciting and challenging, therefore, to consider the detailed report recently issued by the NRC (2009) on the status of forensic science within the United States. It affords the unusual opportunity to view forensic science across disciplinary boundaries and to gauge how well forensic psychology might fit under this broad umbrella.

Strengthening Forensic Science in the United States (NRC, 2009)

Under the Science, State, Justice, Commerce, and Related Agencies Appropriations Act of 2006, Congress authorized the National Academy of Sciences to conduct a study on the state of forensic science in the United States and make recommendations for improvement. “Forensic science” was defined to include the disciplines of chemistry, biochemistry, biology, and medicine, as well as scientific, technical, and crime scene personnel. Its scope included both laboratory-based endeavors (e.g., nuclear and mitochondrial DNA analysis, toxicology and drug analysis) and the interpretation of observed patterns (e.g., fingerprints, writing samples, toolmarks, bite marks, and hair specimens). It did *not* include

psychology or psychiatry. However, much of this report—including the observed strengths and needs of forensic science, and the recommendations for improvement—appears relevant to the science and practice of forensic psychology, considered broadly. It will therefore be considered in some detail, and used to help frame the priorities of forensic psychology for the next decade.

The charges to the Forensic Science Committee that are particularly relevant to psychology include the following: (a) assess present and future resource needs of the forensic science community; (b) make recommendations for maximizing the use of forensic technologies and techniques; (c) identify potential scientific advances; (d) make recommendations for programs that will increase the number of qualified forensic scientists; and (e) disseminate best practices and guidelines. The report observed that resources, services, and expertise of forensic scientists vary widely across jurisdictions, resulting in substantial variation in depth, reliability, and overall quality of the substantive information provided. This variability was attributed to the absence of (a) adequate training and continuing education, (b) rigorous mandatory certification and accreditation, (c) adherence to robust performance standards, and (d) effective oversight. The report also notes that forensic science is harmed by extreme disaggregation—multiple types of practitioners, different levels of education and training, varying professional cultures, reliance on apprentice-type training, and guildlike structure of disciplines.

The full text of this report is available online (http://www.nap.edu/catalog.php?record_id=12589). The report raises two very important questions concerning the nature of forensic evidence used in criminal proceedings: (1) the nature of the foundational science on which expert evidence is based and the results communicated; and (2) the extent to which expert evidence may be tainted through bias, human error, or the absence of sound operational procedures and performance standards (Monahan & Walker, 2010). The report's recommendations that appear most applicable to forensic psychology are discussed in this section.

Best-Practice Standards. There has been noteworthy progress in forensic psychology in this area during the past decade, although substantial gaps remain. Practice guidelines comparable with those developed by the AAPL are not available; for reasons discussed in this article, they are unlikely to be developed through the APA. However, there is a substantial and growing scientific literature in areas such as response style, risk assessment, and specialty tools for assessing functional legal capacities for various legal questions. This literature has been cited and applied to forensic assessment (e.g. Melton et al., 2007; the Oxford University Press best practices series). The most important source of forensic ethical guidance, the SGFP, is nearing completion in revised form (Committee on the Revision of the SGFP, 2008).

Certification of Scientist–Practitioners. There are two levels of certification of competence in the practice of forensic psychology, roughly paralleling the *proficient* and *specialty* levels identified at the 1995 Villanova Conference (Bersoff et al., 1997). Some states provide training in forensic assessment and certify those with a demonstrated degree of knowledge and skill. Such individuals might be considered proficient in the practice of forensic psychology. Massachusetts, for instance, has used a “certified forensic evaluator” designation for over 2 decades. (Other states, such as Virginia, Florida, and Texas, provide specialized continuing

education training but do not formally certify practitioners.) The second level is board certification, which can be satisfied through the American Board of Forensic Psychology⁴—an organization that has been providing board certification since 1978 and is now affiliated with the American Board of Professional Psychology. Board certification is one reflection of specialization in the practice of forensic psychology.

Promoting Peer-Reviewed Research and Technical Development. There is a clear recognition within the field that forensic psychology should be evidence based whenever possible, with strong links to the foundational science (see, e.g., Committee on the Revision of the SGFP, 2008; Grisso, 2003; Melton et al., 2007). Some of this recognition is long-standing (see, e.g., Melton et al., 1987), some of it is strengthened by the current emphasis on evidence-based practice, and some results from legal expectations (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 1993; *Kumho Tire Company, Ltd. v. Carmichael*, 1999). The “technical development” has been largely realized through the development of specialized forensic assessment instruments. The field has witnessed the development of a number of empirically supported tools to help in assessing violence risk (e.g., the Classification of Violence Risk [Monahan et al., 2005]; the Level of Service/Case Management Inventory [Andrews, Bonta, & Wormith, 2004]; the Historical–Clinical–Risk Management–20 measure [HCR-20; Webster, Douglas, Eaves, & Hart, 1997]; and the Violence Risk Appraisal Guide [Harris, Rice, & Quinsey, 1993]), competence to stand trial (Evaluation of Competence to Stand Trial—Revised [ECST-R; Rogers, Tillbrook, & Sewell, 2003] and the MacArthur Competence Assessment Test—Criminal Adjudication [MacCAT-CA; Poythress et al., 1999]), competence to make treatment decisions (the MacArthur Competence Assessment Tool—Treatment; Grisso & Appelbaum, 1998), capacities to waive *Miranda* rights (Grisso, 1998), and other areas (see Grisso, 2003).

Improving Forensic Education and Promoting Educational Standards. This is another area in which forensic psychology has made important strides on the predoctoral, postdoctoral, and continuing professional education levels. Since 2000, forensic psychology (narrowly defined) has been recognized by APA as an area of applied specialization. The regulatory implications of this recognition have been developed in postdoctoral training context, through guidelines for the APA accreditation of postdoctoral fellowships (AP-LS, 2009a, 2009b). Such guidelines will probably *not* be developed for the purpose of accrediting doctoral forensic training programs, as APA accredits applied doctoral training programs only in the broad areas of clinical, counseling, and school psychology. However, they may well be developed to assist in evaluating forensic specialty concentrations within accredited programs.⁵ There have also been proposals for training in particular domains that would facilitate the development of forensic expertise

⁴ There are other organizations that also offer board certification in forensic psychology. However, the American Board of Forensic Psychology appears to be the most rigorous, requiring a credentials review, a work sample review, and the passing of both a written and an oral examination for all candidates.

⁵ The Forensic Specialty Council, which is part of the Council of Specialties in applied psychology, is about to undertake the development of such guidelines (Mary Alice Conroy, personal communication, October, 3, 2009).

within the broader areas of clinical, counseling, and school psychology as well as within neuropsychology and cognitive, developmental, human experimental, and social psychology (DeMatteo et al., 2009; Poythress, 1979). The availability of continuing professional education in forensic psychology has been facilitated by the programs provided by the American Academy of Forensic Psychology over the past 25 years (<http://www.aafp.ws/>).

Funding to Support Research, Education, and Practice. The availability of public funding in these areas is mixed. Research funding for forensic psychology from the National Institutes of Health, the National Science Foundation (NSF), and the National Institute of Justice is small compared with that available in other areas of behavioral and medical science.⁶ The education of some doctoral-level psychologists is supported within the budgets of public hospitals and correctional facilities (for practicum and internship training). A good example of such public funding of forensic practice involves the U.S. Bureau of Prisons, which conducts the majority of criminal forensic evaluations in the federal system, provides internship and postdoctoral training for developing forensic psychologists, and promotes forensic board certification of practitioners. Such education is also supported by public and private universities, particularly for research-oriented clinical training programs (Norcross, 2009), but very rarely by federal funding. By contrast, however, the practice of forensic psychology in criminal and juvenile/family contexts is supported in large part by public funding, through the budgets of particular jurisdictions, federal and state courts, and the offices of prosecutors and public defenders. This is less applicable in civil litigation, however, where the costs of forensic evaluations and consultation are borne largely by the litigants.

Funding for Relevant State and Local Agencies. Public funding is available for many aspects of forensic psychology practice. Whether this funding is sufficient to allow adequate staffing and operations is a different question, and the answer undoubtedly varies across jurisdictions. One of the most interesting questions raised in the NRC report is whether funding might be enhanced at start-up, allowing agencies and units delivering public forensic services to design their functioning according to recognized best-practice standards.

Assessing Development and Impact of New Technologies. The use of contemporary telecommunication technology has been very limited in the deliv-

⁶ For instance, a review of the funded abstracts in the National Science Foundation's (NSF's) Law and Social Sciences program reveals that, in 2008, about \$1,500,000 went toward projects related to forensic psychology (NSF, 2009). Meanwhile, the total budget for research and research-related activities in 2008 was reported at \$5,131,700 (NSF, 2008). Similarly, in 2008, the National Institute of Mental Health (NIMH) released 27 program announcements and 19 requests for proposals (RFPs); of these, only two program announcements and one RFP appeared to include forensically relevant topics (NIMH, 2009). The National Institute on Drug Abuse (NIDA) in 2008 released 20 requests for applications (RFAs), of which two were specific to the criminal justice system, and 15 program announcements, one of which could include forensic psychology research (NIDA, 2009). Finally, a review of the 87 solicitations released by the Office of Justice Programs in 2008 revealed seven programs that fund forensic psychology research (Office of Justice Programs, 2008). Twenty-three of these solicitations were from the National Institute of Justice; 4 were related to forensic psychology. The remaining solicitations focused on other forensic sciences, including DNA technology and trace evidence.

ery of forensic psychology services. One noteworthy exception involves the use of computer administration, scoring, and interpretive guidance seen in certain psychological tests (e.g., Minnesota Multiphasic Personality Inventory–2, Millon Clinical Multiaxial Inventory–III, Personality Assessment Inventory) and specialized measures (e.g., the Classification of Violence Risk). However, the opportunity for expanded use of personal digital assistant technology for accessing relevant empirical evidence and guiding best practice, for example, is striking. In a related vein, it may be useful to incorporate the use of portable assessment devices for measuring brain activity (e.g., functional near-infrared spectroscopy, or fNIRS) and the enhanced use of relevant assessment software as the necessary equipment becomes smaller and less costly. As communication is enhanced through social networking and internet technology, there is expanded opportunity to obtain much more information than we could previously. With more information available, however, there is also a much greater need to check the accuracy of such information.

It is also useful to consider the expanded use of teleconferencing technology. This permits interviewing and expert testimony at something approaching in-person levels of clarity. It could also be used to facilitate collaboration among professionals conducting an evaluation when one of them is offsite, which has valuable implications for training and continuing professional education.

Establish Standard Terminology and Model Reports. The establishment of standard terminology and model reports would be an important part of the development of practice guidelines. This now appears technically feasible. It would be important to use sufficient flexibility in such terminology and model reports to account for differing legal demands across jurisdictions and to avoid premature closure in areas in which there remains active disagreement within the field (e.g., answering the ultimate legal question). However, for reasons discussed elsewhere in this article, it would be problematic for APA, with its multiple constituencies, to serve as the home for practice guidelines in forensic psychology. Perhaps the preferable approach involves emulating the AAPL by developing practice guidelines for specific types of forensic evaluations and consultations. This approach would yield different sets of guidelines that would be aspirational although, without APA endorsement, less likely to have an impact on regulatory bodies (just as the 1991 SGFP had limited impact for this reason).

Competitively Fund Peer-Reviewed Research on Scientific Bases of Validity of Forensic Methods. Many of the best specialized forensic assessment instruments have been developed through programmatic research funded by federal granting agencies or foundations. Examples include the MacCAT-CA, the MacArthur Competence Assessment Tool for Treatment, and the Classification of Violence Risk (funding from the MacArthur Foundation and the National Institutes of Health), the *Instruments for Assessing Understanding and Appreciation of Miranda Rights* (Grisso, 1998 [funding from NIMH]) and the work currently being conducted by Rogers and colleagues on *Miranda* waiver capacities (Rogers, Harrison, Hazelwood, & Sewell, 2007 [funding from the NSF]). Increased levels of competitively awarded funding would promote the development of more such tools, which have been among the best vehicles for increasing the scientific foundation of forensic practice. Alternative funding models, including enhanced support from foundations and perhaps from private-sector companies that might

market specialized tools and technologies once developed and validated, should also be considered.

Develop and Establish Quantifiable Measures of Reliability and Accuracy of Forensic Analyses. Research on forensic questions and tools has a well-developed array of measures available. Predictive research designs rather than controlled comparisons are necessary when many of the variables studied are difficult or impossible to manipulate, for practical or ethical reasons. Such research, focusing on questions such as who will be violent or who will be rearrested, now routinely incorporates such analytic techniques as receiver operating characteristics, odds ratios, sensitivity, and specificity—substantial advances over analytic techniques used before 1990. Debates within the literature have also recently focused on the question of how group-derived standards apply to individuals and the important role played by confidence intervals (Hart, Michie, & Cooke, 2007; Heilbrun, Douglas, & Yasuhara, 2009). Therefore, forensic psychology seems well equipped on this score.

Publish Reliability and Validity Data in Good Journals. A large number of competitive journals now publish behavioral science evidence relevant to forensic psychology. Such journals include mainstream psychology journals (e.g., *Assessment*, *Journal of Applied Psychology*, *Journal of Consulting and Clinical Psychology*, *Psychological Assessment*) as well as interdisciplinary journals (e.g., *Behavioral Sciences & the Law*, *Criminal Justice and Behavior*, *Journal of the American Academy of Psychiatry and Law*, *International Journal of Forensic Mental Health*, *Law and Human Behavior*, *Psychology*, *Public Policy*, and *Law*). A review of the “Research Briefs” section of the *AP-LS News* (e.g., see AP-LS, 2009a, 2009b) provides ample illustration of the number and range of such journals and the associated range of studies they publish.

Promote Research on Observer Bias and Human Error in Forensic Examinations. The measurement of human error is an important part of using psychological tests and specialized tools in forensic contexts. There is an extensive literature on the reliability and accuracy of decisions made through unstructured clinical judgment, structured professional judgment, and actuarial approaches (Douglas & Ogloff, 2003; Monahan, 2008a) and a substantial body of research on the contribution of evaluatee response style to the potential for error in forensic evaluations (Rogers, 2008). As well, there is a growing body of evidence on potential evaluator bias as a function of defense versus prosecution appointment in the scoring of relevant psychological tests (Boccaccini, Turner, & Murrie, 2008; Murrie et al., 2009). The development of empirically supported specialized tools has also created an important methodological advantage in research on bias and error: It gives researchers an outcome against which to compare the results of human judgment, whereas researchers before the existence of such tools were forced to use contaminated outcomes such as legal decisions that were not independent of the evaluations being studied.

Develop Specialty Tools. The development of specialty tools for the assessment of functional legal capacities is one of the most important strategies for promoting empirically based practice. There has been substantial progress in this area. These include measures developed to help assess competence to stand trial (ECST-R [Rogers et al., 2003]; Fitness Interview Test–Revised [Roesch, Zapf, & Eaves, 2004]; MacCAT-CA [Poythress et al., 1999]), capacities to waive *Miranda* rights (Grisso,

1998), risk assessment for juveniles (Structured Assessment of Violence Risk in Youth [Borum, Bartels, & Forth, 2003]; Youth Level of Service/Case Management Inventory [Hoge & Andrews, 2002]), risk assessment for adults (the Classification of Violence Risk [Monahan et al., 2005]; Level of Service/Case Management Inventory [Andrews et al., 2004]; HCR-20 [Webster et al., 1997]; Violence Risk Appraisal Guide [Harris et al., 1993]), and response style (Structured Interview of Reported Symptoms [Rogers, 1992]; Test of Memory Malingering [Tombaugh, 1996]; Validity Indicator Profile [Frederick, 1997]). There is also a clear recognition of the value of such measures (e.g., Heilbrun et al., 2008; Melton et al., 2007) when they are rigorously developed and supported by empirical data for the purpose(s) for which they are used. Despite such progress, however, there is much work that remains to be done in this area. A number of legal questions for which FMHA is sought do not have a strong specialized measure available for use; practice in these areas will become less tenable in the future without such tools, given the way in which they translate scientific evidence into practice.

Develop Quality Improvement Procedures to Ensure Best Practice and Minimize Error. This encompasses two steps: (a) the development of broadly and specifically applicable principles and (b) the translation of such principles into quality control indices that are applied to reports, testimony, and consultation in forensic contexts. Broadly applicable principles for FMHA have been described (Heilbrun, 2001; Heilbrun et al., 2008); more specifically applicable criteria would be the subject of practice guidelines for each kind of evaluation, which have not yet been developed in forensic psychology. However, it would be challenging to implement such criteria across a wide range of settings that provide forensic psychology services. This is certainly needed; there is substantial evidence that FMHA reports are often problematic (Christy, Douglas, Otto, & Petrila, 2004; Heilbrun & Collins, 1995; Hecker & Steinberg, 2002; Lander & Heilbrun, 2009). Whether it is feasible depends largely on the widespread recognition of the importance of such a step—a recognition that could be promoted both by practice guidelines within the discipline and involvement in cross-disciplinary organizations such as the American Academy of Forensic Sciences or the National Institute of Forensic Science. Voluntary peer review is available for forensic psychiatrists (through the AAPL) and forensic psychologists (through the American Academy of Forensic Psychology). Expansion of this process to promote more widespread usage, beyond the relatively rare and voluntary basis on which it is now used, might well be indicated.

Develop a National Forensic Science Code of Ethics; Encourage Individual Societies to Incorporate This Code Into Their Own Ethics. This describes a step that is conceptually straightforward for the discipline of forensic psychology. The SGFP (Committee on Ethical Guidelines for Forensic Psychologists, 1991) is currently under revision and will ultimately be approved through the APA process (unlike the 1991 version). The development of a code of ethics for forensic science, applicable across disciplines, would clearly function as an important source of ethics authority and would be likely to be considered seriously for incorporation into future versions of the SGFP.

Fund Interdisciplinary Graduate Training. There is little federal funding currently available specifically for interdisciplinary training. There are occasional exceptions; the University of Nebraska's Law–Psychology program still offers an

NIMH traineeship (<http://www.unl.edu/psypage/grad/lawpsych.shtml>) long after this has vanished at most other training sites. However, the fellowships and stipends that would follow from such support would have some impact on the approximately 90 clinical psychology doctoral training programs that are well funded and research oriented, and possibly even more effect on the approximately 30 programs that are not well funded but produce 50% of the graduates in clinical psychology nationally (Norcross, 2009). This is particularly noteworthy, given that those coming from practice-oriented programs are far more likely to be involved in the direct provision of a substantial amount of forensic services, relative to research-oriented graduates who seek academic positions.

There are, of course, limitations to the applicability of the NRC report to forensic psychology. Two of the clearest such limitations involve the emphasis on laboratory practice and the delineation of specific techniques that are not within the domain of psychology (e.g., DNA analysis). However, reading the report's recommendations that go beyond this level of specificity (almost all of them) clearly points toward the conclusion that it is remarkably applicable to the field of forensic psychology.

A Vision for the Field

A review of the recommendations made in the 1970s (Poythress, 1979), 1980s (Grisso, 1987), and early 2000s (Otto & Heilbrun, 2002) makes it clear how the field has matured. This can be seen in a different way by considering the status of various recommendations for the broad area of forensic science (NRC, 2009) discussed in the previous section. A careful reading of the NRC report suggests that the progress within forensic psychology during the past 3 decades is comparable to, or exceeds, that seen in the forensic applications of biology and chemistry.

Our vision for the field of forensic psychology includes a foundational science that is nourished through reasonable levels of extramural funding and supported through appropriate and competitive publication outlets. The "applied" component of this field would be closely linked to the foundational science through specialty tools and training that strongly emphasize the link between science and practice. Forensic psychology would be at once communal and autonomous, functioning as a part of the broader field of psychology and sharing good relations and collaboration with related fields while simultaneously having the independence to set and enforce scientific and applied standards. There would be a sufficient number of well-trained specialists to meet the demand for forensic services, and such services would be delivered consistent with best practice whenever feasible. Those delivering the services would be sufficiently trained and skilled to recognize best practice as it applies in a given case. Poor practice would be minimized through various influences: the enforcement of the broad ethical standards of psychology (the EPPCC), the incorporation of specialized guidelines (e.g., the SGFP) into deliberation on licensure complaints, the enhanced awareness of judges and attorneys regarding good (and poor) forensic practice, or (in extreme and, we hope, rare cases) the use of malpractice litigation.

This vision might strike some as unattainable. It is not. The considerable progress on dimensions including scientific infrastructure, specialty training, and practice innovations such as specialized forensic assessment tools speak to the feasibility of attaining a fully mature field, with these features fully incorporated.

In the next section, we discuss the integration of the reviews considered thus far as they apply toward priorities for the next decade in forensic psychology.

Important Goals for the Next Decade

We suggest five broad goals that, if addressed over the course of the next decade, would help to consolidate gains, expand and energize the field while addressing important societal priorities, and promote collaboration while retaining autonomy. The first of these goals is new. The other four reflect our prioritization of continuing much of the important progress that has been made in forensic psychology during the past 3 decades. Each of these goals is discussed in this section.

Goal 1: Explore the Feasibility of Including Forensic Psychology Within the Proposed National Institute of Forensic Science

The particular recommendations from the NRC (2009) report that are most applicable to forensic psychology were described in the previous section. Some of these recommendations have been either fully or partly implemented through work in the field to date: certification of practitioners, promotion of educational standards, development of quantifiable measures to describe the results of forensic evaluations, promotion of research on observer bias and human error, and development of specialty tools. Other recommendations could have substantial further impact on the field if implemented. These include developing practice guidelines to supplement the SGFP, promoting peer-reviewed research and technical development through increased federal grant funding, and including forensic psychology services among those receiving start-up funds to establish hospital and clinic forensic services correctly from the beginning. Enhanced grant funding would also promote the development of additional forensic specialty tools, which provide such an important link between science and practice.

The involvement of forensic psychology in the proposed National Institute of Forensic Science might encourage other disciplines that have developed some of these priorities less fully. In turn, the regulatory influence that might be provided by such an institute could have a favorable impact on forensic psychology, in which compliance with standards and guidelines set forth by the field has so far been almost entirely voluntary. At present, psychologists offering forensic services must satisfy only licensure laws and broad ethical standards. The establishment of standard terminology, model reports, and other quality improvement procedures—and the regulation of their use through a respected, multidisciplinary forensic scientific institute—could help substantially to improve to overall quality of specialized forensic practice.

There are two additional ways in which the field of forensic psychology might benefit from involvement in a national forensic scientific institute. First, to the extent that forensic science (broadly conceived) is linked with specialized training, it could mean that federal funding designed to support training in some forensic sciences (e.g., chemistry, biology) could also be applied to the support of specialized forensic training in disciplines such as psychology and psychiatry. Second, a forensic science institute might itself develop some capacity for specialized training. Much as the FBI Academy has provided training to law enforcement officers on a range of topics, the National Institute of Forensic

Science might offer foundational forensic training as well as training in more specialized topics (e.g., observer bias and human error) that nonetheless have some cross-disciplinary utility.

Goal 2: Improve the Quality of FMHA Practice Broadly

The limited available research focusing on work products in forensic psychology—FMHA reports—suggests that many such reports are deficient in their thoroughness, relevance, and accuracy (Christy et al., 2004; Hecker & Steinberg, 2002; Heilbrun & Collins, 1995; Heilbrun, Rosenfeld, Warren, & Collins, 1994; Lander & Heilbrun, 2009; Nicholson & Norwood, 2000; Skeem & Golding, 1998; Skeem, Golding, Cohn, & Berge, 1998). A few studies, focusing on evaluations conducted by those with specialized training, have pointed to a more optimistic picture (Heilbrun & Collins, 1995; Petrella & Poythress, 1983). However, there are probably steps that can be taken to improve the quality of the typical FMHA report submitted to attorneys and courts in the course of criminal, juvenile/family, and civil litigation.

A number of steps described in the discussion of Goal 1 would be likely to improve the quality of reports and testimony. Applying broad, foundational principles of FMHA is likely to improve the thoroughness and relevance of reports; such principles are associated with expert judgments of report relevance, helpfulness, and overall quality (Lander & Heilbrun, 2009). Practice guidelines specific to particular legal questions and model reports would assist psychologists in learning to conduct and effectively communicate FMHA results. The ongoing monitoring of such work, as is currently provided in several states (see Table 1), would very likely improve the overall consistency, quality, and adherence to standards for such reports.⁷

In considering how the overall quality of FMHA reports might be improved, it is useful to distinguish between three levels of practice: (a) best practice, (b)

⁷ Wettstein (2005) provides a comprehensive review of quality and quality improvement in forensic mental health assessment. Although acknowledging that empirical data are limited regarding approaches to improving such quality, he outlines a series of steps—consistent with a quality improvement approach—that are either promising or have some empirical support. These steps (forensic service credentialing and certification by law or policy; incentivize quality and quality improvement with quality bonus; establish quality guidelines and standards; define, test, and operationalize quality performance measures and tools; collaboration of generalists with forensic specialists; audiotape or videotape forensic interviews; education of referral sources about evaluation guidelines and sharpening of referral questions; use of specific checklists and contracts by referral sources; model excellence of forensic evaluations to attorneys and courts; encourage cross-examination regarding participation in QA (quality assurance) activities; peer review of evaluations, reports, and testimony; mandatory forensic continuing medical education on quality of evaluations; and maintenance of forensic board certification predicated on quality improvement activity) could be implemented through various approaches. However, certification or monitoring combined with continuing education, as featured in many of the programs described in Table 1, has the potential to address many of them. An additional, albeit indirect, approach to judging the potential impact of an intervention such as the training and monitoring provided by a model program (e.g., the University of Virginia's Institute of Law, Psychiatry, and Public Policy [ILPPP]) involves comparing the approaches to forensic practice by mental health professionals trained and monitored through the ILPPP (Warren, Murrie, Chauhan, Dietz, & Morris, 2003) with those described in states without such a program (relevant studies summarized in Wettstein, 2005).

Table 1
State-Level Training and Certification in Forensic Mental Health Assessment

State	Description	Reference
Florida	Required training for forensic evaluators offered by the University of South Florida Louis de la Parte Florida Mental Health Institute. Focus is on evaluations of competency to stand trial and mental state at the time of the offense; topics include relevant Florida laws and statutes, assessment practice guidelines, and ethical guidelines. After training, mental health professionals are eligible to be placed on the Department of Children and Families Referral List.	Florida Department of Children and Families, 2006; University of South Florida College of Behavioral and Community Sciences, 2009
Hawaii	Offers annual forensic mental health examiner training covering competency, criminal responsibility, malingering, and standards of practice for writing forensic reports. Hawaii courts appoint evaluators from a pool referred by the Adult Mental Health Division. Training is part of the process by which providers become certified forensic mental health examiners.	Hawaii Revised Statutes, 2008
Maryland	Office of Forensic Services oversees forensic evaluations for the state, including evaluations of competency to stand trial, criminal responsibility, juvenile competency, and general forensic psychiatric evaluations. Training for forensic evaluators is provided by the Department of Health and Mental Hygiene.	Maryland Department of Health and Mental Hygiene, 2009
Massachusetts	Certification involves taking a written examination on standards of practice, state forensic statutes, and mental health case law; completing two training reports (one for competency to stand trial, one for criminal responsibility) that are reviewed by a committee; and completing two final reports (same legal questions) that are reviewed by two reviewers. In addition, a forensic mental health supervisor must "provide a written assessment of the candidate's mastery of the skills necessary to perform forensic evaluations." After completing	Commonwealth of Massachusetts Department of Mental Health, 2002

(table continues)

Table 1 (*continued*)

State	Description	Reference
Michigan	<p>these steps, an individual becomes a “certified designated forensic professional,” a certification that must be renewed every 3 years.</p> <p>The evaluation unit at the Center for Forensic Psychiatry conducts all forensic evaluations for district and circuit criminal courts. Facility staff are primarily doctoral-level psychologists but also include psychiatrists, masters-level psychologists, and social workers. The facility houses the University of Michigan Department of Forensic Psychiatry residency program, and residents have the opportunity to become certified as consulting forensic examiners. This involves observing five competency and five criminal responsibility evaluations; conducting five of each evaluation; completing a final evaluation regarding each issue; and participating in a mock trial as a forensic expert.</p>	Michigan Department of Community Health, 2008
Missouri	<p>Evaluators must be licensed as MD, DO, PhD, or PsyD. To become certified to perform competency evaluations, an individual must have performed at least 10 such evaluations under the supervision of a certified examiner within 1 year of applying, have attended at least two relevant training sessions, and demonstrate knowledge of relevant legal and clinical issues by written or oral exam. To conduct evaluations of criminal responsibility, professionals must have conducted at least 15 supervised evaluations, have attended at least one relevant training session, and passed a written or oral exam. Certification must be renewed every 2 years.</p>	Missouri Department of Mental Health, 2006
North Carolina	<p>Mental Health professionals or substance abuse professionals must be employed by a state program (or work under contract for a state program) to be eligible for training as a forensic evaluator. The regional mental health director</p>	North Carolina Administrative Code, 1990

Table 1 (*continued*)

State	Description	Reference
	submits an applicant's name for the training and registration program; if accepted, the application undergoes training on the procedures, techniques, and reporting requirements for forensic evaluations.	
Ohio	Forensic evaluators must have participated in training and continuing education related to the legal and psychological principles of forensic evaluations. An evaluator can be a registered nurse, nurse practitioner, social worker, physician, professional counselor, psychology intern, or psychologist. For competency evaluations, the evaluator must be a psychiatrist or licensed clinical psychologist and participate in at least 15 training hours each year, including 8 forensic-specific hours.	Ohio Revised Code § 2945.37, 1997; Administrative Code § 5122-20-07, 2003; Ohio Department of Mental Health, 2009
Pennsylvania	Training for forensic evaluators in the forensic hospital system was provided under contract between City of Philadelphia, Commonwealth of Pennsylvania, and Drexel University between 2004 and 2008. Topics included principles of forensic mental health assessment, competence to stand trial, insanity evaluation, restoration of competence and treatment of insanity acquittees, risk assessment, report writing, and expert testimony.	Pennsylvania Office of Mental Health and Substance Abuse Services
South Carolina	Designated forensic examiners must have an RN, a master's degree in counseling, a master's degree in social work plus 2 years of evaluative experience, or have a doctorate in psychology plus 1 year of experience. In lieu of experience, an examiner may have at least 1 year experience working with committed patients in an admissions unit of a state inpatient psychiatric facility. The facility employing a clinician sends a letter and proof of education/experience to South Carolina's medical director requesting approval as an	South Carolina Department of Mental Health, 2006

(table continues)

Table 1 (*continued*)

State	Description	Reference
Tennessee	<p>examiner. If the clinician is approved, his/her name is placed on a list of designated examiners that is supplied to probate courts throughout the state.</p> <p>Evaluators must participate in a department-sponsored education program, or a program certified by the department, to be qualified to perform a competency evaluation. Department has developed performance standards for evaluations, and monitors the quality of juvenile evaluations. There is also a forensic evaluator renewal training held annually.</p>	Tennessee Department of Mental Health and Developmental Disabilities, 2009
Texas	Evaluators conducting forensic assessments of competence to stand trial or insanity must have received at least 24 hours of specialized training on these topics. Such training is not provided by the state; it is typically obtained through outside continuing-education providers.	Texas Code of Criminal Procedure, Chapters 46B and 46C
Utah	Forensic examiner training is provided through the Department of Substance Abuse and Mental Health. The Department requires evaluators to have a doctorate and be licensed in social work or psychology, or licensed as a physician or psychiatrist, and have at least 3 years of experience conducting psychological or forensic examinations. Evaluators must also attend a mandatory annual training to become certified as a forensic examiner or to renew certification.	Utah Department of Human Services, 2009
Virginia	Evaluators must complete a 5-day basic forensic evaluation training program offered by the University of Virginia's Institute of Law, Psychiatry, and Public Policy. There is additional advanced training for both adult and juvenile evaluations. Both cover topics such as adjudicative competency, criminal sentencing, malingering, testimony, and ethics; the juvenile course has a focus on the juvenile system. At the end of the training,	University of Virginia, 2009a, 2009b

Table 1 (*continued*)

State	Description	Reference
Washington	<p>participants must complete a written examination and submit written evaluation reports.</p> <p>Forensic evaluations are conducted by Designated Mental Health Professionals (DMHPs). To be eligible to become a DMHP, one must be a psychiatrist, psychologist, psychiatric nurse, social worker, or other mental health professional, and demonstrate knowledge of risk assessment, competency, civil commitment, and other topics. DMHPs must participate in continuing education related to clinical, legal, and forensic issues. The state provides a handbook describing the information to gather during the course of various forensic evaluations.</p>	Washington State Department of Social and Health Services, 2008
West Virginia	<p>To be eligible for certification, an individual must be a licensed psychiatrist who is board eligible or board certified in forensic psychiatry, or a licensed psychologist who is board eligible/certified in forensic psychology. Alternatively, evaluators may also have 2 years of experience with court-ordered forensic evaluations, including certification as an expert witness by a West Virginia court.</p>	West Virginia Code, 2008
Wisconsin	<p>The state has guidelines specifically for competency evaluations. The Wisconsin Forensic Unit contracts with forensic examiners to conduct competency evaluations for the state. These professionals must be approved by the Department of Health Services.</p>	Wisconsin Department of Health Services, 2004

appropriate practice, and (c) poor practice. Best practice is aspirational, with strong empirical foundations (often incorporating specialized tools), to be expected from highly trained and board-certified specialists (Heilbrun, Grisso, & Goldstein, 2008). Appropriate practice involves conducting evaluations in a way that is consistent with standards and guidelines set by the field (e.g., EPPCC, SGFP, Child Custody Guidelines) and is comparable with the legal notion of “standard of practice” (American Law Institute, Restatement (Second) of Torts § 282, 1965; Heilbrun, DeMatteo, et al., 2008). Poor practice is marked by very

substantial limitations that grossly impair its relevance, accuracy, helpfulness, or overall quality. Such limitations might include extreme brevity (a very short interview, relying on self-report only without testing, records, or third-party information), using outdated or entirely irrelevant tests, making substantial errors in scoring or interpretation, or failing to grasp the relevant legal constructs associated with the evaluation. The poor practice of forensic science can result in wrongful convictions in capital cases (Garrett & Neufeld, 2009) and mislead the fact finder in other litigation involving forensic science (McQuiston-Surrett & Saks, 2009). However, there is good reason to think that poor practice of forensic psychology has the potential to harm the accuracy of legal decision making and the interests of both defense and prosecution across a range of legal decisions (see, e.g., *Barefoot v. Estelle*, 1983).

There are different approaches that might be used to promote best or appropriate practice, respectively, or to minimize poor practice. Promoting best practice might best be accomplished through research strengthening empirical foundations and the application of such research through the use of good specialized tools. Specialized training at the doctoral, internship, postdoctoral, and continuing education levels, rigorous board certification in the forensic specialty, and the ongoing documentation of best-practice advances through scholarly and professional literature might also promote best practice in FMHA. Appropriate practice should apply various standards developed through the field, including state-level forensic training and certification. As may be seen in Table 1, this kind of state-level training and monitoring has been used in 17 of the 50 states in the United States, about one third of state-level jurisdictions. Such programs may promote appropriate practice and also help to keep practitioners current with important developments in the field. The kinds of major shortcomings that can constitute poor practice can be detected and minimized through several approaches. Market influences (in theory, attorneys will not continuously retain and courts will not reappoint poor practitioners if the supply of adequate practitioners exceeds the demand for services) are one such approach. Complaints filed with professional ethics committees and licensure boards are another. On a broader level, the collaboration (including training) with judges, attorneys, and forensic administrators, using the aggressive promotion of professional standards such as the SGFP, can strengthen the demand to avoid repeated referrals to those who engage in poor forensic practice.

Goal 3: Expand the Scope of the Field to Include Important Innovations

The field of forensic psychology has, for many years, defined itself largely according to legal decision making. This has meant that innovations occurring before trial (see, e.g., the diversionary points defined by the Sequential Intercept Model; Munetz & Griffin, 2006) or after trial (see, e.g., risk reducing interventions as part of re-entry) have received less research attention from forensic scientists than they might, and have not been recognized as mainstream practice areas within forensic psychology.

This should change. One of the important themes for the expansion of forensic psychology cited by Otto and Heilbrun (2002) was “interventions” in areas relevant to legal decision making. Certainly there has been movement in this

direction during the past decade. Research on mandated community treatment (Monahan, 2008b; Monahan & Steadman, in press; Monahan, Swartz, & Bonnie, 2003), specialty courts (Almquist & Dodd, 2009; DeMatteo et al., 2009; Steadman, Redlich, Griffin, Petrila, & Monahan, 2005), re-entry (Bouffard & Bergeron, 2006; Center for Effective Public Policy, 2007; Skeem & Eno-Louden, 2006), mediation (Johnson, Saccuzzo, & Koen, 2005; Reynolds, Harris, & Peebles, 2007), and trauma (Abram et al., 2004; Rich & Grey, 2005) demonstrates the expanding interest in the empirically based applications of intervention. “Smart sentencing” (Chanenson, 2009; Dumanis, 2009; Etienne, 2009; Marcus, 2009) and risk-needs assessment (Andrews & Bonta, 2006; Andrews, Bonta, & Wormith, 2006) are further examples of how more traditional risk assessment, focused on prediction, has become more integrated with intervention planning through the process of assessing relevant needs and deficits. A recent major work focuses on the applications of science to the reduction of reoffense risk (Dvoskin, Skeem, Novaco, & Douglas, in press). An expansion of this trend should be an important priority for forensic psychology. This will link forensic psychology in the broadest sense with two of the most important potential contributions from the larger field of psychology: interventions and research gauging the effectiveness of such interventions. It will also promote important outcomes such as rehabilitation of offenders, reduction of offending rates, and efficient use of public resources. Finally, it will encourage a closer relationship between forensic psychology and scientific psychology more broadly, and the scientific components of other behavioral sciences, of natural sciences, and of medicine—which could have a reinvigorating effect on several of these areas (Petrila, 2009).

A second important innovation is the specialized forensic assessment tool. There remain a number of legal questions on which psychologists provide consultation for which no legally relevant, psychometrically rigorous, and empirically validated measure has yet been developed. An important priority for the next decade involves the development of an increasing number of such tools, substantially reducing (and eventually eliminating entirely) the number of legal questions whose consultation is not supported through the availability of such a specialized measure. Of course, the effectiveness of such specialized tools depends on both proper selection (use in cases and for purposes similar to those for which the tool has been developed) and appropriate application, consistent with that described in the tool’s manual.

Goal 4: Expand Consultation and Education to Include More Services to the Areas Described in the Previous Goal, Particularly in the Public Sector

As the range of empirically supported services within the field grows, and the way in which such services (guided by applicable research) are delivered is modified, it becomes very important to vigorously disseminate information regarding their use. This will involve the dissemination, through multiple approaches, of concise and accurate information about the nature of good services, the limitations of such services, and the criteria distinguishing good from poor services.

This recommendation is likely to encounter opposition from within the field of psychology. In our view, one of the influences that has kept psychology from

implementing such regulatory steps, akin to what has been done in medicine, has been the view of a variety of constituencies represented within the APA to the effect that practice opportunities should not be limited except at basic levels (e.g., through licensure and the EPPCC). The importance of evidence-based practice seems to have become more widely recognized in the past decade—except when one's particular ox is being gored. We are advocating that organizations such as the AP-LS and the American Association for Correctional and Forensic Psychology play a major role in promoting the importance of evidence-based practice, expanding the research to support its implementation, and vigorously communicating information related to evidence-based practice to the consumers of forensic services during the next decade.

Such outreach should continue, and intensify, in settings that have traditionally provided public forensic services: criminal courts, juvenile/family courts, civil and forensic hospitals, jails, and juvenile detention centers. Other targeted sites have been less traditional but seem appropriate given the potential expansion of the field we recommended previously: specialty courts, prisons, specialized postsentence facilities for sexual offenders, and community-based re-entry facilities. With the increase in boundary-spanning research (e.g., the diversion of mentally ill or substance-abusing veterans from prosecution; the outpatient commitment of mentally ill individuals in the community not meeting full criteria for involuntary hospitalization), it is also appropriate to consider facilities such as local mental health systems and VA hospitals for outreach, consultation, and training.

Goal 5: Consider Diversity in Addressing Goals 1–4

One of the striking gaps in forensic psychology is between those who provide services and those who are assessed and treated, and about whom legal decisions are made, in consideration of these services. It is crucial that this gap be narrowed. The racial and ethnic composition of the United States is changing; by 2040, it is estimated that Latina/Latino citizens will be in the majority. The delivery of services, and the research on their effectiveness, by individuals with a high degree of specific cultural competence is likely to be promoted by increasing the number of forensically trained psychologists of African American, Asian American, Latina/Latino, American Indian, Alaska Native, Native Hawaiian, and multiracial backgrounds providing such services.

Addressing this goal will require actively encouraging, even recruiting, minority individuals as early as high school. Minority issues within APA are promoted in part through a multigroup council (Council of National Psychological Associations for the Advancement of Ethnic Minority Issues, 2009). One potentially effective strategy for the field of forensic psychology would involve closer collaboration with councils like this and with secondary schools and colleges that educate substantial proportions of minority students. The effectiveness of this diversity effort will have a major impact on the extent to which forensic psychology is perceived as providing services that are culturally competent and effective—and the extent to which it actually provides such services.

Conclusion

Forensic psychology is a maturing discipline. Judging from several analyses over the past 3 decades, the field has made substantial progress in research, education, and practice. There is strong potential for increasing the extent to which research is foundational, and practice is evidence based, in forensic psychology. However, addressing this goal must be a critical part of the next decade's agenda for the discipline of forensic psychology. The NRC Report (NRC, 2009) identifies serious problems in both the practice of forensic science and the foundational science, requiring a "national commitment to overhaul the current structure that supports the forensic science community in this country" (p. 1). This should serve as a call to action for both disciplines that are included within their current definition of "forensic science," and others such as forensic psychology and forensic psychiatry, which are not yet included.

Accordingly, continued progress toward the broad goals of improving the foundational science and better integrating science and practice will be facilitated by outreach and collaboration with organizations such as the National Institute of Forensic Science. Such collaboration will both stimulate forensic psychology and, it is hoped, also provide some guidance to other forensic disciplines. The accurate, vigorous promotion of the state of the field with legal professionals, and the recruitment of an increased number of minority researchers and practitioners, will further enhance both the public perception and the actual value of services provided by the field. Considering the advances first envisioned by Poythress and Grisso, and then accomplished by our field, the prospects for achieving these new, loftier goals appear bright indeed.

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Received October 30, 2009
 Accepted December 15, 2009 ■

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