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Resource Material for Ethical Psychological Assessment of Symptom and Performance Validity, Including Malingering

Gerald Young

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Abstract The present paper offers resource material for evaluation of malingering, response bias, and symptom and performance validity. The material mostly consists of noncontroversial, paraphrased excerpts from relevant consensus statements, guidelines, codes, books, and articles. The five principles of the American Psychological Association (APA) ethics code were used to integrate the material. In addition, five other principles were needed (e.g., on science). The companion article on a new consensus statement on the ethical use of symptom and performance validity written for the Association for Psychological Advancement in Psychological Injury and Law (ASAPIL) in the journal *Psychological Injury and Law* (PIL; Bush, Ruff, & Heibronner, 2014) was instigated by and written partly based on the resources described in the present paper. The resources offered in the present paper are divided into the following sections: I. Malingering; II. Related Terms; III. APA Ethics Code; IV. Other Ethics Guidelines; V. Practice Guidelines; VI. Assessment Guidelines; VII. Other Ethical Sources; IX. Biases, Fallacies, Errors; X. Prior SVT-M/PVT-M Statements; XI. A New Ethical Model of Ten Principles; and XII. Instrumentation, and followed by Conclusions. The ten principles of the present ethical guidelines could be used to help revise the APA ethics code. The companion statement constitutes a major advance in the field and the present resource material facilitates its use.

Keywords Ethics · Psychological assessment · Symptom validity · Performance validity

This resource paper provides supplementary material (Appendix) to consider for the companion consensus statement in symptom and performance validity assessment in forensic and related civil disability determinations (Psychological assessment of symptom and performance validity, response bias, and malingering: Official position of the Association for Psychological Advancement in Psychological Injury and Law, Bush, Ruff, & Heilbronner, *Psychological Injury and Law, 7* (3), 2014).

The resource includes summaries of the prior consensus statements on the assessment of symptom and performance validity in neuropsychological assessments (Bush et al., 2005; Heilbronner, Sweet, Morgan, Larrabee, Millis, & Conference Participants, 2009). The present consensus statement was built on the basis of the prior ones, but was structured on ethical principles, especially as described in the APA ethics code (American Psychological Association, 2010). Therefore, the resource material in this supplement includes the APA code's five principles.

I used the five principles in the APA ethics code as a starting point to cover a lot of the resource material in the present work. However, more principles were needed to include all the material in the resources—e.g., on the APA code (2010), the forensic specialty guidelines (APA, 2013), FMHA foundations (Forensic Mental Health Assessment; Heilbrun, Grisso, & Goldstein, 2009), various works on ethics in the 2012 APA Ethics handbook (e.g., Gottlieb & Coleman, 2012), and my own malingering book (Young, 2014a). Therefore, I found it necessary to create five more ethical principles, for example, on science and ethics. That is, toward constructing the new consensus statement, I found it necessary to elaborate on the five basic ethical principles in the APA code, and constructed five new ones for the task. The result is a 10-principle code. Together, the ten principles not only help structure the appropriate use of symptom validity tests and measures (SVTs/SVMs)/performance validity tests and measures (PVTs/PVMs) in work in the area of psychological injury and law but also how to understand ethics globally.

G. Young (✉)
Department of Psychology, Glendon Campus, York University, 140 York Hall, 2275 Bayview Ave., Toronto, Ontario, Canada M4N 3M6
e-mail: gyoung@glendon.yorku.ca

That is, they could serve as a basis for future revisions of the APA ethics code.

Other notable components of the present supplement on ethical use of SVMs/PVMs include (a) extensive tables of excerpts from pertinent practice guidelines and articles that are paraphrased for the present purposes, (b) an extensive listing of relevant definitions, and (c) listing of the basic tests and measures that can be used in the area (nonexhaustive, does not imply recommendation). About the tests and measures in the area, although SVMs/PVMs are used in cognitive and emotional/psychopathology evaluations, the assessment instruments include several other types in these regards: (a) interview schedules (Miller Forensic Assessment of Symptoms Test (M-FAST), Miller, 2001; Structured Interview of Reported Symptoms (SIRS), Rogers, Bagby, and Dickens (1992); Structured Interview of Reported Symptoms, Second Edition (SIRS-2), Rogers, Sewell, & Gillard, 2010): (b) F family type scales on personality inventories (Minnesota Multiphasic Personality Inventory, Second Edition (MMPI-2), Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; Butcher, Graham, Ben-Porath, Tellegen, Dahlstrom, & Kaemmer, 2001; Minnesota Multiphasic Personality Inventory, Second Edition Restructured Form (MMPI-2-RF), Ben-Porath & Tellegen, 2008/2011; Personality Assessment Inventory (PAI), Morey, 1991, 2007); (c) embedded neuropsychological tests (e.g., Reliable Digit Span (RDS), Greiffenstein, Baker, & Gola, 1994); (d) scales in dedicated tests, such as the TSI-2 (Trauma Symptom Inventory, Second Edition; Briere, 2011) for posttraumatic stress disorder (PTSD); as well as the (e) stand-alone forced-choice tests (e.g., Test of Memory Malingering (TOMM), Tombaugh, 1996; Victoria Symptom Validity Test (VSVT), Slick, Hopp, Strauss, & Thompson, 1997/2005).

The companion consensus statement emphasizes (a) the need for ethical practice in assessing evaluee validity and using SVMs/PVMs in forensic and related disability assessments, (b) consideration of factors such as culture and gender in these regards, and (c) adopting a comprehensive, unbiased, and scientific approach to assessment (testing, reasoning) when working in the area of psychological injury and law. The resources provided are noncontroversial and, along with the consensus statement, can help guide research on the assessment of validity in the forensic disability evaluation and related context.

The resources offered in the present paper are divided into the following sections: I. Malingering; II. Related Terms; III. APA Ethics Code; IV. Other Ethics Guidelines; V. Practice Guidelines; VI. Assessment Guidelines; VII. Other Ethical Sources; IX. Biases, Fallacies, Errors; X. Prior SVT-M/PVT-M Statements; XI. A New Ethical Model of Ten Principles; and XII. Instrumentation, and followed by Conclusions.

Malingering

The first table of resource material on the evaluation of malingering and related response styles concerns various definitions of malingering (see Table 1). The Diagnostic and Statistical Manual of Mental Disorders (DSM) (DSM-IV-TR; DSM-5; American Psychiatric Association, 2000, 2013, respectively) definition is considered the standard one in the field, and its definitions combine gross exaggeration with the production of feigned symptoms. Note that Table 2 shows that in the DSM-5 there are some "minor" changes to the definition of malingering relative to the one in the DSM-IV-TR. However, some of the changes made in the definition of malingering in the new addition of the DSM include ones that might not be minor in that they appear to lower somewhat the bar for its attribution. That said, excluding the term of malingering from the subject index of a psychiatric nosological manual, as has happened in the DSM-5 manual, seems to raise it out of existence!

Note that, unlike the case for the DSM, other approaches to defining malingering do not include exaggeration in their definitions. Part of the difficulties encountered in the field relate to an absence of an unambiguous definition of the term of malingering. Table 1 presents an integrated approach in defining malingering.

Given the difficulties in clearly defining malingering, it is not surprising that estimates of its base rate or prevalence vary (see Table 3). The estimates range from below 10 % (even 1 %) to over 50 %. More likely, problematic presentations and performances, in general, express the latter range, with the percentage of outright malingering in the former range (as reviewed in Young, 2014a).

Related Terms

Tables 4, 5, 6, 7, 8, and 9 present multiple terms related to malingering, but ones that do not include the intention to deceive for financial gain or other external incentives, as found in malingering. Evaluators who obtain evaluation data indicative of a general feigning, or otherwise noncredible presentation end performance, but without compelling, irrefutable evidence for malingering, should use terminology in their conclusions other than malingering to implicate in their evaluees a less than frank approach to the assessment.

APA Ethics Code

Table 10 outlines the five major principles of the APA ethics code. Table 11 gives more detailed information from the code on standards in assessment.

Other Ethics to Guidelines

Tables 12, 13, and 14 are based on the common standards for psychological testing and assessment (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999, 2014). The tables concern diagnosis, interpretation, and responsibilities, respectively. The major change in the 2014 revision relative to the earlier 1999 version is that it includes a statement on the need to check for evaluee effort, which is consistent with the present approach.

Practice Guidelines

Tables 15, 16, 17, and 18 present forensic guidelines relevant to the source material collected in the current paper. They derive from the American Psychological Association's (2013) forensic practice guidelines. The tables are on responsibilities, science, methods/procedures, and assessment, respectively.

Assessment Guidelines

Tables 19, 20, 21, 22, 23, and 24 are taken from a book on forensic mental health assessment (Heilbrun et al., 2009). The tables present material on general information, preparation, data gathering, data interpretation, reports, and testimony, respectively.

Other Ethical Sources

Next, the present resource material considers another APA guideline, this time on disability (APA 2012; see Table 25). Then, it gives a relevant table based on the AAPL guidelines (American Academy of Psychiatry and the Law 2005; see Table 26).

The next set of tables and a figure (see Tables 27, 28, and 29; Fig. 1) are meant to help in ethical practice. The tables are derived from Pope and Vasquez (2011), Gottlieb and Coleman (2012) and Bush et al. (2012). The figure is taken from Young (2014a).

Biases, Fallacies, Errors

Tables 30, 31, 32, 33, 34, 35, and 36 involve material on biases, fallacies, and errors taken from diverse sources. The forensic evaluator and others conducting disability determinations should examine carefully these sources as much as the others. Table 36 summarizes a review of the definition of bias and its major classes that might be found in forensic mental health evaluations (Neal & Grisso, 2014). The reader is referred to the solutions offered by the authors in the article, which are only briefly summarized here.

Prior SVT/PVT Statements

Tables 37, 38, 39, and 40 present excerpts from the extant consensus statements on use of SVT-Ms/PVT-Ms in forensic practice (Bush et al., 2005; Heilbronner et al., 2009), as well as from Iverson (2006). These sources are the primary ones to consider aside from the companion paper on the ASAPIL consensus statement on the topic (Bush et al., 2014).

A New Ethical Model of Ten Principles

The resource materials given in the present paper were integrated into a coherent ethical structure (see Tables 41, 42, and 43). The first one frames them within a model of adult reasoning (Young, 2011). The following one presents the integrated material that fit the five principles of the current APA ethics code. The last table presents the integrated material within five new principles especially created for the present exercise. The consensus statement prepared for ASAPIL in Bush et al. (2014) considered this new formulation of ethical principles.

Instrumentation

The remaining tables present many of the psychological tests and scales that can be used to provide psychometrically sound data in forensic disability and related determinations. There are five classes of such instruments: (a) stand-alone two-choice forced alternative tests (see Table 44); (b) embedded cognitive/neuropsychological tests/scales (see Table 45); (c) dedicated scales (e.g., for pain, PTSD; see Tables 46 and 47); (d) interview schedules (see Table 48); and (e) personality omnibus inventories (see Table 49). This listing is not meant to be exhaustive, nor does it constitute a recommendation. Rather, for each assessment undertaken in this area of practice, the evaluator is responsible for selecting the tests and scales that have the best scientific support and fit for the referral question at hand, and that are appropriate for the evaluee being assessed, including consideration of special characteristics, such as gender, age, culture, minority status, language, disability status, and so on.

Conclusion

This resource material on the ethical use of SVT-Ms/PVT-Ms in forensic disability and related assessments is meant to help in any assessment involving psychological injury. Prior consensus statements (Bush et al., 2005; Heilbronner et al., 2009) focused on the cognitive/neuropsychological domain (e.g., for

cases of mild traumatic brain injury, mTBI). The aim of the present paper and its companion consensus statement is to supply resource material and standards for appropriate aspirational goals in testing and measurement of malingering and negative response bias that could guide effectively assessors in the area for assessment of any type of psychological injury, including mTBI, PTSD, and chronic pain.

Conflict of Interest The author has no conflict of interest to report with respect to this paper.

Appendix

Table 1 Term explanations from different sources: malingering

Source	Explanation
American Psychological Association	The American Psychological Association's Dictionary of Psychology (APA, 2006) does not include exaggeration in its definition of malingering. For this psychological dictionary, malingering is the deliberate feigning of a disability or injury that is motivated to achieve a particular specific external factor or outcome (e.g., financial gain obtained by faking physical injury)
DSM-IV-TR	The DSM-IV defines malingering as the "intentional production" of "grossly exaggerated" or "false" "psychological" and "physical" symptoms that derives from "motivation by external incentives," for example, in obtaining financial compensation This approach to defining malingering can be qualified by the separation of its two major components. That is, the definition include both (a) overt, outright, frank, and conscious, intentional fabrication, feigning, or dissimulation of symptoms, disorders, disabilities, or functional impairments for external incentives, such as for financial gain, and for which there is incontrovertible, indisputable, or compelling evidence, and it also includes the component of (b) conscious, intentional gross exaggeration of symptoms, disorders, disabilities, or functional impairments that clearly is greater than the moderate level, for the same external incentives, and for which there is incontrovertible, indisputable, or compelling evidence
Legal	*Black's Law Dictionary* (Garner, 2009) offers a definition of malingering that includes feigning for external incentives, such as disability benefits; however, its definition does not include an exaggeration component. Specifically, *Black's Law Dictionary* refer to malingering as—"to feign illness or disability" [for example, to initiate receiving or] "to continue receiving disability benefits"
Layperson	The Merriam-Webster Dictionary (Mish, 2003) includes an exaggeration component in its definition of malingering, but it does not specify degree, which is the case for the DSM's adjective of "gross" exaggeration. Specifically, Merriam-Webster refers to malingering as: to pretend or exaggerate incapacity or illness, e.g., to avoid work
Rogers and Granacher (2011)	The component of "gross exaggeration" in the definition of malingering is unlikely to involve "minor or isolated amplification of symptoms"
Young (2014a)	First, in malingering, unlike what is specified in the DSM definition, the intention is not to *produce* false or exaggerated symptoms but to clinically *present* with them. That is, in malingering there might be no symptoms produced, per se, in the sense they are merely claimed verbally. Second, even if there were symptoms produced, the process of somatization could be at play. Moreover, somatization and malingering may co-exist. That is, the symptoms might be unconsciously produced and then actually lead to new produced symptoms, but for financial gain, rather than in any way related honestly to the event at claim, as when firmly believing that one has been injured (although one has not) and the stress, lack of sleep, anger against the insurance process, etc., all conspire to produce pain and related claimable symptoms. Thus, an initial conscious process of presenting falsely for financial gain with symptoms may serve to actually produce them, with a claim based on their presumed validity resulting In short, an improved definition of malingering would involve: the intentional *presentation with* false or grossly exaggerated symptoms [physical, mental health, or both; full or partial; mild, moderate, or severe], for purposes of obtaining an external incentive, such as monetary compensation for an injury and/or avoiding/evading work, military duty, or criminal prosecution Other advantages of the new definition to note is that the use of the word "presentation" instead of "production" covers negative symptoms as well as positive ones, such as failing to present capable of work when that is not the case. Moreover, other changes made to the definition (a) allow for combined physical and psychological symptoms, (b) are consistent with the various definitions of the differing mental health perspectives, and (c) fit differing venues, such as the worker compensation (to avoid work) and tort ones (to obtain financial compensation)

Table 2 Changes to malingering in DSM-5 relative to the DSM-IV-TR

Criterion	Descriptor	Change and comments
Superordinate category	Nonadherence to medical treatment	In the DSM-IV, had been under "Additional conditions" for clinical focus
Criteria	"Any combination" of the four criteria leads to "strong suspicion"	Same (i.e., 2 or more of the 4)
Criterion 1	Referral to an attorney, but also could be self-referral to the attorney	Had been only referral to an attorney. This lowers the bar
Criterion 2	Marked discrepancy between claims and "objective findings and observations"	Had been only objective findings. This lowers the bar
Criterion 3	Lack of cooperation/compliance	Same
Criterion 4	Antisocial personality disorder	Same
Elaboration	"Definite" evidence of "feigning" "suggests" malingering if the "apparent" goal is to obtain an incentive, such as financial ("money")	Added
	Definite feigning evidence = "clear evidence" of "loss of function" in "examination but not at home"	Added; but how are home observations obtained? Are they always needed?
	"Symptom relief" could be obtained by "suggestion" or "hypnosis"	Deleted; good idea
Section placement	Other conditions that may be focus of clinical attention	However, it is entered after a subheading nonadherence to medical treatment, which is confusing because malingering might involve overly zealous adherence to medical treatment
Index entry	–	Removed [Has malingering ceased to exist?] Solution: put it back

Adopted from Young (2013); with kind permission from Springer Science + Business Media B. V. [Table 2.12]

Table 3 Malingering base rate and base rates of related constructs

Source	Explanation
Boone (2011)	The malingering can be about 40 % for cases of mTBI (citing Mittenberg, Patton, Canyock, & Condit, 2002)
Frederick (2012)	The prevalence rate of malingering based on the literature review is "probably not more than 50–60 %" (p. 231)
Greve, Ord, Bianchini, and Curtis (2009)	The prevalence of malingered disability in compensation-seeking chronic pain patients: Of the 508 patients, up to 36 % were classified as probable or definite malingerers, with 10.4 % as definite malingerers. Greve et al. (2009) gave the results for the prevalence of malingering as between 20 and 50 %, depending on the type of analysis undertaken. However, according to the author's own data, the estimate is more toward 10 %
Lee, Graham, Sellbom, and Gervais (2012)	For the FBS, in claimants who had undergone non-neurological medico-legal disability assessments: only 19 met the criteria for definite malingering. This works out to a percentage of about 1.5 %
Mittenberg et al. (2002)	They surveyed practitioners (American Board of Clinical Neuropsychology) about their approaches to the matter in over 30,000 cases of neuropsychological assessment that took place in the prior year. For base rates of combined probable malingering and symptom exaggeration, the percentages were as high as 28.66 for personal injury cases and 30.12 for disability/workers compensation compared to 8.11 for nonlitigating medical or psychiatric controls. The percentage for mTBI rose to 38.50 and for pain/somatoform disorder, it was 31.41. For "probable malingering in cases of apparent cognitive impairment", it was estimated as 88 %
Sollman and Berry (2011)	The evidence of base rates for "suboptimal effort" in clinical practice is equal to or greater than 40 % in some settings. By using a more generic or global term than of malingering (suboptimal effort), Sollman and Berry afforded the possibility that such terms might involve even mild exaggeration. Their estimate that the percentage might be even higher than 40 % for the base rate of suboptimal effort makes sense if one includes all types of suboptimal effort and reasons for them
Wygant, Anderson, Sellbom, Rapier, Allgeier, and Granacher (2011)	The percentage of definite malingering was only 8 % in this study
Young (2014a)	The estimates of problematic presentation and performances to lesser degrees than outright malingering might be 40–50 %, with malingering itself as high as 10–15 %, although other researchers might dispute this figure, with estimates as low as 1–2 % (Lee et al., 2012; also see Rogers, 2008; Greve et al., 2009)

Adopted from Young (2014a); with kind permission from Springer Science + Business Media B. V. The percentages described for Mittenberg et al. (2002) have been elaborated for the purposes of this paper

Table 4 Term explanations other than for malingering

Term	Source	Explanation
Secondary gain	Rogers (2008)	From a forensic perspective, individuals might deliberately feign an illness to gain special attention/material gains
	Rogers and Granacher (2011)	Secondary gain cannot be measured directly and should never be used in assessments. The authors also considered the concepts of overreporting and inadequate effort as vague[a]
	Heilbronner et al. (2009)	The committee noted that, unlike the case for Rogers and Granacher, the term "secondary gain" can be used in an assessment but should be limited to the context of the assessment and should never be used as a synonym for malingering
Exaggeration	Miller, Sadoff, and Dattilio (2011)	The evaluee represents true symptoms or impairments due to an injury as being worse relative to their actual condition
	Kane and Dvoskin (2011)	For them, exaggeration concerns a "relatively mild overstatement" of injury effects and, furthermore, it could be either outside of or within conscious awareness
Extension	Miller et al. (2011)	Symptoms or impairments due to an injury either had resolved or had improved, but they are claimed fraudulently to continue at the level of the initial injury or to even have worsened over time
Fabrication	Miller et al. (2011)	Fraudulently presenting, in a clear untruth, those symptoms or impairments that are present as being the result of an injury
Misattribution	Miller et al. (2011)	Symptoms that preceded, followed, or are otherwise unrelated to an injury are attributed fraudulently to it
Suboptimal effort	Rogers (2008a)	Terms such as these imply the presence of malingering (Rogers & Neumann, 2003)
Overreporting	Greene (2000)	An elevated level of item endorsement, meeting cut scores, especially on multiscale inventories. The term is not the equivalent of feigning
Primary gain	Warren (2011)	Primary gain is an internalized motivation, in which symptoms create relief and help avoid an unconscious, internal conflict, such as by providing an acceptable excuse to avoid something. Primary gain is distinguished from secondary gain; which is based on a conscious and externally based motivation involving knowingly and willingly related to obtaining something or avoiding something

[a] However, Young (2014a) noted that overreporting appears a neutral term that accurately reflects the exaggerations in material that could be gathered in an assessment

Table 5 Terms related to response style: nonspecific

Term	Explanation
Unreliability	Unacceptable accuracy of reported information; without making assumptions about the intent/reasons for the inaccurate information
Nondisclosure	Withholding of information (e.g., omission), without assuming its intentionality
Self-disclosure	Individual reveals something about her/himself. Unwillingness to share personal information does not necessarily imply dishonesty
Deception	In self-reporting, attempt to distort or to misrepresent, e.g., engage in acts of deceit; often accompanied by nondisclosure
Dissimulation	Deliberately distorting/misrepresenting psychological or other symptoms. A generic term not necessarily defensiveness, malingering, or any specific (negative) response style
Noncredible	Without sufficient grounds to foster belief; unlikely, implausible (Mish, 2003)

Mostly adapted from Rogers (2008)

Table 6 Terms related to response style: overstated pathology

Term	Explanation
Malingering	Intentionally producing false/grossly exaggerated physical/psychological symptoms; motivated by external incentives (DSM-IV-TR; American Psychiatric Association 2000, p. 739; and similarly in the DSM-5). The magnitude of the dissimulation involves fabrication or gross exaggeration and, moreover, of multiple symptoms (minor exaggerations/isolated symptoms do not qualify). The presence of external incentive does not nullify possibly additional internal motivation

Table 6 (continued)

Term	Explanation
Factitious presentation	An intentional production/feigning of symptomology with the motivation to assume a sick role (American Psychiatric Association, 2000, p. 517). Note the DSM-5, factitious presentation has expanded to include physical as well as psychological symptomology, with the presentation involving either illness, impairment, or injury. Also, the presentation involves falsification or deception, and does not necessarily exclude simultaneous motivation for external reward (i.e., the presentation could be evident even without obvious external reward)
Feigning	The deliberate fabrication or gross exaggeration of physical or psychological symptoms; attribution is generic, without assuming its goal (Rogers & Bender, 2003)

Mostly adapted from Rogers (2008)

Table 7 Term associated with simulated adjustment

Term	Explanation
Defensiveness	Deliberate gross minimization or denial of physical or psychological symptomology
Social desirability	The presentation oneself in the most favorable way possible relative to relevant social norms or mores (King & Bruner, 2000)
Impression management	Deliberate effort to control the perception(s) of oneself by others
Faking bad	Any attempt, conscious or not, to represent a more exaggerated symotom set, e.g., in endorsing test item, than is actually experienced by the respondent. This style is suggestive of feigning and negative impression management. It could be confused with malingering, so the use of the term of overreporting is preferred (Ben-Porath & Tellegen, 2008/2011)

Adapted from Rogers (2008)

Table 8 Other response styles

Term	Explanation
Irrelevant responding	Evaluee avoids becoming psychologically engaged in the evaluation (and responds haphazardly; Rogers, 1984)
Random responding	Evaluee response based entirely on chance factors
Role assumption	Assume the role/character of another (Kroger & Turnbell, 1975)
Hybrid responding	Use of greater than one response style in a particular context

Adapted from Rogers (2008)

Table 9 Other key terms for malingering and related concepts

Term	Explanation
Symptom magnification	Some exaggeration of symptom(s) for which the motivation is likely intentional
Disengagement	Minimally engaged in the assessment process (or fully withdrawn)

Adapted from Rogers et al. (2010)

Table 10 General principles in APA ethics code

Principle	Explanation	Comment
A. Beneficence/nonmaleficence	Do good/not harm	Psychologists seek to benefit or help those with whom they work and they take care to "do no harm". Because their scientific/professional judgments and actions might affect people, psychologists are both alert to and take guard against any factors that might lead to misuse of their influence (e.g., personal, financial, social, organization, or political)

Table 10 (continued)

Principle	Explanation	Comment
B. Fidelity/responsibility	Establish trust with patients/other with whom one works	Psychologists establish trust in relationships, and strive to manage conflicts of interest that could potentially lead to exploitation/harm
C. Integrity	Emphasize accuracy/honesty/truthfulness	Psychologists seek to promote accuracy/honest/truthfulness in their science/teaching/practice. In conducting these activities, they do not steal/cheat/engage in fraud/subterfuge/intentional misrepresentation of fact
D. Justice	Involves fairness, equal access to services, its quality	Psychologists recognize that fairness and justice are cardinal. Psychologists exercise reasonable judgment/take precautions toward ensuring that any potential biases, their boundaries of competence, and any limitations in their expertise do not lead to/condone any unjust practice
E. Respect for rights/Dignity	Respect (a) the dignity worth of all people and (b) the individual's rights to privacy/confidentiality/auto-determination	Psychologists respect the dignity/worth of all peoples. They respect the rights of individuals to privacy/confidentiality/self-determination. Psychologists are aware of/respect all cultural, individual, and related role differences, including ones based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, and socioeconomic status. They consider all such factors when working with members of any such group. Psychologists strive to eliminate in their work any bias based on these factors

Adapted from Behnke and Jones (2012) and American Psychological Association (2010) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.16, p. 580]

Table 11 Ethical standards for assessment in APA ethical code

Standard	Explanation
Bases for assessments	(a) Psychologists base the opinions contained in their recommendations, reports, and diagnostic or evaluative statements, including forensic testimony, on information and techniques sufficient to substantiate their findings (b) Psychologists provide opinions of the psychological characteristics of individuals only after they have conducted an examination of the individual's that are adequate to support their statements or conclusions
Use of assessments	(a) Psychologists administer, adapt, score, interpret, or use assessment techniques, interviews, tests, or instruments in a manner and for purposes that are appropriate in light of the research on or evidence of the usefulness and proper application of the techniques (b) Psychologists use assessment instruments whose validity and reliability have been established for use with members of the population tested. When such validity or reliability has not been established, psychologists describe the strengths and limitations of test results and interpretation

Adapted from American Psychological Association (2010)

Table 12 Standards for psychological testing and assessment process: testing

Standard	Explanation	Comments
12.1 [in the 1999 version; 10.1 in the 2014 version]	Professionals who use psychological tests should confine their testing and related assessment activities to their areas of professional competence, as demonstrated through their education, supervised training, experience, and appropriate credentialing, licensing, and registration	The responsible use of and interpretation of test scores and patterns require appropriate levels of experience and sound professional judgment. Also, responsible test usage and interpretation requires understanding of the empirical and theoretical foundations. In addition, professional competence in assessment also requires sufficient familiarity with the population from which the test taker comes to facilitate appropriate test score selection, test administration, and test interpretation. For example, when personality tests or neuropsychological tests are administered as part of a psychological assessment of an individual, the test scores must be understood in the context of the individual's physical and psychological state, as well as the individual's gender, cultural,

Table 12 (continued)

Standard	Explanation	Comments
		linguistic, educational, occupational, and health background; futher, test score understanding must take into account other evidence relevant to the tests administered. Test score interpretation in this context requires professionally responsible judgment that is exercised within the boundaries of knowledge and skill attained through the professional's education, training, and supervised experience, as well as consideration of context
12.2 [10.10 in the 2014 version]	Individuals who select tests and interpret test results for assessments should not allow individuals or groups having any vested interest in the assessment outcomes to have any inappropriate influence on the interpretation of the assessment results [avoiding any biases in this regard]	Third party individuals or groups with a vested interest in the interpretation, significance, or meaning of the test score and pattern findings from psychological testing might include employers, health professionals, legal representataives, school personnel, third party payers, family members, and managed care organizations. In some settings, legal requirements might limit a professional's capacity to prevent inappropriate interpretations of assessments from affecting decisions related to examinees, but the evaluators in such circumstances have the professional obligation to document any disagreements in these regards
12.3 [10.5 in the 2014 version]	Tests selected for administration in individual psychological assessment should be suitable for the particular characteristics and background of the test taker	Considerations for test selection should take into account the particular characteristics of the individual test takers, which include their gender, age and development level, race/ethnicity/minority status, culture, language/linguistic characteristics, and/or physical characteristics that might affect the ability to meet test requirements. Test selection should also consider the availability of test norms and evidence of test validity for the population that is representative of the test taker. If there are no normative or validity studies that are available for the relevant population at issue, professionals should present and qualify test interpretations as hypotheses rather than conclusions
10.9 [new to the 2014 version]	Technology-based administration of tests should be used only after considering the purpose of the assessment, the construct being measured, and the test capabilities	This is a quality control consideration

Adapted from American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1999, 2014)

Table 13 Standards for psychological testing and assessment process: diagnosis

Standard	Explanation	Comments
12.5 [in the 1999 version only]	Professionals should select test combinations, in addressing complex diagnoses, that are appropriate for the purposes of the assessment	
12.6 [10.6 in the 2014 version]	When differential diagnosis is required, the professional should choose, if possible, a test or test combination for which credible evidence exists that the test(s)' scores help distinguish between the two or more diagnostic groups at issue rather than merely helping to distinguish abnormal cases from the general population	Validity information relating to group means and their statistical significance are inadequate to the task at hand relative to information related to confidence in score interpretation for an individual
12.7 [10.13 in the 2014 version]	When professionals are engaged in diagnosing, and the validity of a diagnosis is evaludated by determining the level of agreement between interpretations of the test scores and the diagnosis involved, the diagnostic terminology of categories attributed should be carefully defined or identified	If the terms are not in the most recent versions of the DSM or ICD, the assessor should offer a description of the symptoms and deficits, and use the diagnosis that is closest

Adapted from American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1999, 2014)

Table 14 Standards for psychological testing and assessment process: interpretation

Standard	Explanation	Comment
12.13 [10.2 in the 2014 version]	Professionals who select tests to administer and draw inferences from test scores about test takers should be familiar with the relevant evidence of validity and reliability/precision for the intended uses of the test scores in assessments; further, they should be prepared to articulate a logical analysis that supports all facets of the assessment, not just in testing, and the inferences made from the assessment	When potential inferences derived from psychological test scores are not supported by current evidence, yet might hold promise for future validation, they could be presented as hypotheses
12.14 [part of the comments for standard 10.12 in the 2014 version]	The interpretation or understanding of test scores or outcomes in an assessment or evaluation should be informed, when possible or appropriate, by the full spectrum of reliable data available about the test taker, including an analysis of qualitative information, such as stylistic and other qualitative features of the test taker's behavior; these are inferred from observations, interviews, and testing, and from historical, background, and other relevant information. [Added to the 2014 version: "In addition, tests of faking or effort often are used to determine the possibility of deception or malingering," p.167]	Examples of test-taking behavior in this regard include manifestations of fatigue or attention, momentary fluctuations in emotional state, rapport with the examiner, level of motivation to engage in the testing, withholding or distortion of response, for example in instances of deception or malingering and in instances of pseudoneurological conditions; also consider any unusual response or general adaptation to the testing environment
12.15 [10.17 in the 2014 version]	Professionals who use computer-generated interpretations of test scores should verify that the quality of the evidence for the validity of the computer approach involved is sufficient to generate valid interpretations	Computer-generated interpretations of a given construct risk reducing a complex set of test scores to misleading or over simplified analyses of their meanings of test scores that, in turn, might lead to inappropriate diagnostic and prognostic decisions. The professional should review norms on which the computer interpretations are based for their appropriateness and relevance. [Deleted in the 2014 version, but kept here for the present purposes: Computer-generated interpretations have the potential to mislead the trier of fact in court, e.g., in judicial and government settings.]
12.16 [Comment to the standard below in the 2014 version]	Test score or pattern interpretations should not be provided that go beyond the empirical evidence existing for a relationship among particular test results, prescribed interventions, and desired outcomes, it pertains to populations similar to those representative of the examinee	–
12.17 [10.14 in the 2014 version]	When the professional provides recommendations or decisions as having an actuarial basis, criterion-related evidence of validity should be available	–
12.18 [10.15 in the 2014 version]	The interpretation of test or test battery scores toward diagnostic purposesshould be based upon multiple sources of test data and collateral information; further, it should be bases on an understanding of the normative, empirical, and theoretical foundations as well as the limitations of the tests involved and the data	An individual's test scores and patterns represent a cross-sectional view of the person within a particular context (i.e., their medical psychosocial, educational, vocational, cultural, ethnic, gender, familial, genetic, and behavioral characteristics). The interpretation of test scores derived from a complex test or battery of tests in such contexts requires appropriate education, supervised experience related to, and knowledge of procedural, theoretical, and empirical limitations of the tests and the assessment procedure
12.19 [10.12 in the 2014 version]	In psychological assessment, the interpretation of test scores or patterns of test battery results should consider the full range of factors that may influence a particular testing score pattern. Where appropriate, professionals should include in their reportsdescription of all such factors and an analysis of the alternative hypotheses or explanations that fit the data at hand, and regarding what might have contributed to the pattern of results	Many factors might influence individual testing result and the overall outcome in a psychological asessment. When such factors are known to introduce construct-irrelevant variance in obtained test scores, these factors should be considered during interpretations of the results
12.20 [10.11 in the 2014 version]	Professionals should provide feedback to test takers about test score and interpretations when this is appropriate or is required by law. The feedback should be provided in	In most instances, professionals should generate a report for the referral source on the assessment outcome. It should adhere to the required standards of the profession, the referral source, or both, and written at a level

Table 14 (continued)

Standard	Explanation	Comment
	language that the test taker (or the person's legal representative, if that applies) can understand	understandable to them. In some clinical situations, providing feedback can actually cause harm to the evaluee. Care should be taken in these regards, or to minimize any unintended consequence of giving feedback. The process of giving feedback should be consistent with applicable legal standards, including privacy laws. The decision to forego giving such feedback (disclose, release test results and their interpretations) also should be consistent with these laws

Adapted from American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1999, 2014)

Table 15 American Psychological Association forensic practice guidelines: responsibilities

Principle	Explanation
Integrity	Forensic workers strive for accuracy, honesty, and truthfulness, and resist pressures of the adversarial divide to be misleading or inaccurate
Impartiality/fairness	Also, they strive for impartiality, fairness, and independence (Ethical Principles of Psychologists and Code of Conduct Standard 2.01, American Psychological Association, 2002). They recognize the adversarial divide and weigh impartially all data/opinions/rival hypotheses Also, they avoid partisan presentation, and avoid being misleading, unrepresentative, incomplete, or inaccurate in submitted evidence, being impartial in their presentation of the data and reasoning
Avoiding conflict of interest	Workers in the field avoid professional impairment from personal, scientific, professional, legal, financial, or other conflicting interests or relationships impairing their impartiality, competence, or effectiveness. They avoid exposing harm to others with whom a professional relationship exists (EPPCC Standard 3.06) Forensic practitioners should consider that part of their responsibility, impartiality, and accountability (EPPC Standard 3.06) is to identify, disclose, and address real or apparent conflicts of interest For conflicts of interest considered manageable, the workers document how conflict is managed as services are provided.

Adapted from American Psychological Association (2013) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.1, p. 569]

Table 16 American Psychological Association forensic practice guidelines: science

Principle	Explanation
Knowledge of the scientific basis for opinions/testimony	Forensic workers seek to offer opinions/testimonies that are based upon sufficiently scientific foundation; also, they use reliable/valid principles/methods that have been applied appropriately at hand In offering opinions/testimony that are based on novel or emerging principles/methods, workers seek to inform about their status/limitations

Adapted from American Psychological Association (2013) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.2, p. 570]

Table 17 American Psychological Association forensic practice guidelines: methods/procedures

Method/Principle	Explanation
Use of appropriate methods	Forensic workers strive to utilize appropriate methods/procedures in their practice. Whether undertaking assessments, examinations, treating, consulting, engaging in educational activities, or conducting scholarly investigations, they seek to maintain integrity by examining the issues/problem involved from all reasonable points of view and they seek information that will help differentially test all plausible competing points of view
Use of multiple sources of information	Forensic workers ordinarily avoid relying only on one data source; whenever feasible, they corroborate important data (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999). If using data that have not been corroborated, they seek to inform about the uncorroborated nature/status of these data, their associated strengths and limitations, if any, and the reasons for using such data

Adapted from American Psychological Association (2013) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V [Table 22.3, p. 570]

Table 18 American Psychological Association forensic practice guidelines: assessment

Principle	Explanation
Selection/use of assessment methods/procedures	Forensic workers use assessment instruments the validity and reliability of which have been established for use with members belonging to the population assessed [on which the instruments have been constructed]. When validity and reliability of this nature have not been ascertained, the workers consider/describe the strengths/limitations of their findings [based on the said instruments]
	When the validity of an assessment technique has not been established in the forensic context/setting in which it is being used, the forensic worker seeks to describe the strengths/limitations of any data derived from using the technique and explain the extrapolation process of these data to the forensic context/setting involved. Because of many differences between forensic and therapeutic contexts/settings, forensic workers consider and seek to inform about the substantially different interpretation for some of the results that might be warranted when certain assessment techniques are administered in forensic contexts/settings (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999)
	Forensic workers consider and seek to inform that forensic assessment data can be affected by factors either unique to or differentially present in forensic contexts, including response style, voluntariness of participation, and situational stress associated with involvement in forensic/legal matters (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999)
Appreciation of individual differences	When interpreting assessment data, forensic workers consider the purpose of the evaluation as well as the various tests factors and person including, test-taking abilities and other characteristics of the person, being assessed, such as situational, personal, linguistic, and cultural differences in them that might either affect their judgments or reduce the accuracy of their interpretations (EPPCC Standard 9.06). Forensic workers strive to identify any significant strengths/limitations of their methods and interpretations
	Forensic workers need to consider how the assessment process might be impacted by any disability an evaluee is expressing; for example, they make accommodations as possible. They consider any such disability when interpreting and communicating the data of their evaluations (American Psychological Association Task Force on Guidelines for Assessment and Treatment of Persons with Disabilities 2011)

Adapted from American Psychological Association (2013) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.4, p.571]

Table 19 Principles of forensic mental health assessment: general

Principle	Explanation
1	Note differences between clinical and forensic areas
2	Obtain all required education, training, and experience for each aspect of one's practice
3	Do not practice outside of one's competence—in education, training, and experience—in one's areas of practice
4	Know the relevant legal, ethical, scientific, and practice sources about all aspects of FMHA (Forensic Mental Health Assessment)
5	Work with an honest approach, impartiality
6	In providing opinions, disclose all limitations and support
7	Control potential evaluator bias by monitoring case selection

Table 19 (continued)

Principle	Explanation
8	Also engage in unbiased continuing education and consultation with unbiased colleagues
9	Know all relevant aspects of the legal system, especially communication, discovery, deposition, and testimony
10	Avoid being adversarial but present and defend preferred opinions competently

Adapted from Heilbrun et al. (2009) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.6, p. 572]

Table 20 Principles of forensic mental health assessment: preparation

Principle	Explanation
1	Identify all relevant forensic issues
2	Accept referrals only within area of competence
3	Decline referrals when evaluator partiality is expected
4	Clarify evaluator's role with referral source
5	Clarify financial agreements
6	Obtain all appropriate authorizations
7	Avoid being both therapist and forensic evaluator
8	Determine the particular role expected in the assessment
9	Select the most appropriate model to guide data collections, interpretations, and conclusions

Adapted from Heilbrun et al. (2009) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.7, p. 572]

Table 21 Principles of forensic mental health assessment: data gathering

Principle	Explanation
1	Inform of purpose and/or obtain appropriate authorization before starting
2	Establish whether the evaluee understands the purpose of the evaluation
3	Does he/she grasp the associated limits on confidentiality
4	Evaluate in conditions that are quiet, private, and distraction free
5	Use multiple sources of information for each aspect being evaluated
6	Review the relevant background information; actively seek missing relevant information
7	Use legal concepts of relevance and reliability (psychological validity) as guides for seeking information and selecting data sources
8	Obtain relevant history
9	Evaluate in relevant, reliable, and valid ways
10	Evaluate legally relevant behavior

Adapted from Heilbrun et al. (2009) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.8, p. 573]

Table 22 Principles of forensic mental health assessment: data interpretation

Principle	Explanation
1	Use third-party information to evaluate response style
2	Use (psychometric preferentially) testing to assess response style
3	Use case-specific (idiographic) evidence in evaluating evaluee
4	Use population level (nomothetic) evidence, too
5	Use scientific reasoning in establishing any causal connection between evaluee condition and functional abilities
6	Establish if there are constraints in answering the ultimate legal question. If not, always use a thorough process, using all relevant data and with clear reasoning, being prudent not to impinge on the domain of the legal decision maker
7	Be comprehensive, accurate, science-based, and impartial in describing findings and limits, so that they can withstand scrutiny under cross-examination

Adapted from Heilbrun et al. (2009) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.9, p. 573]

Table 23 Principles of forensic mental health assessment: reports

Principle	Explanation
1	Note referral question
2	Attribute information to sources
3	Without compromising the science and data involved, use plain language; avoid technical jargon
4	Write report in sections, according to accepted models/ procedures
5	In defending conclusions, show primacy of ones offered relative to others possible or offered in other reports/ testimony

Adapted from Heilbrun et al. (2009) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.10, p. 573]

Table 24 Principles of forensic mental health assessment: testimony

Principle	Explanation
1	Prepare
2	Communicate effectively
3	Base testimony on all relevant data gathered
4	Control the message without altering it

Adapted from Heilbrun et al. (2009) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.11, p. 574]

Table 25 Guidelines for assessment of and intervention with persons with disability: testing/assessment

Guideline	Explanation
1	In assessing evaluees with disabilities, psychologists strive to consider disability as one dimension of diversity, along with other individual and contextual dimensions
2	Depending on the nature of the assessment/testing, psychologists strive to apply the assessment approach that is most psychometrically sound, fair, comprehensive, and appropriate for evaluees with disabilities
3	Psychologists are aware of the need to use, if any, accommodations that are appropriate for evaluees with disabilities in order that test data are valid
4	Consistent with the nature of the evaluation and any disability-related barriers to it, psychologists seek to balance appropriately quantitative, qualitative, and ecological points of view to inform about both the strengths and limitations of the assessment
5	Psychologists seek to maximize fairness and relevance in their interpretation of evaluation data of examinees with disabilities by applying approaches that reduce potential bias and that balance/integrate data from multiple sources

Adapted from American Psychological Association (2012) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.15, p. 580]

Table 26 Honesty and striving for objectivity as an ethical guide

Principle	Explanation
1	Practitioners should adhere to the principles of (a) honesty and (b) striving for objectivity when (a) conducting evaluations, (b) applying evaluation data to legal criteria, and (c) forming opinions
2	The adversarial nature of the field presents the potential for unintended bias and the danger of distortion of opinion, which must be minimized
3	All forensic opinions/report/testimony should be found on all available data gathered that are based on objectivity, soundness of procedure and, to the extent possible, verifying information/facts/inferences/impressions
4	Mental health professionals should not distort their work toward needs of the retaining party

Adapted from American Academy of Psychiatry and the Law: Ethics Guidelines for the Practice of Forensic Psychiatry (2005) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.5, p. 572]

Table 27 Assumptions that help ethical practice

Assumption	Explanation
1	Ethic is a continuously, active, personally responsible process needing constant awareness, questioning
2	Knowledge of formal ethical codes is important, but cannot replace an active/thoughtful/creative approach
3	Relevant legislation/case law/other legal standards are important, but cannot dictate ethical responsibility
4	No matter one's commitment to ethics, any one worker is fallible
5	More so than is the case for other workers, one should question one's own beliefs/assumptions/actions
6	It is harder and more helpful for one to question one's causal/take-for-granted certainties compared to new ones
7	Ethical dilemmas often arise without clear/easy solutions

Adapted from Pope and Vasquez (2011) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.17, p. 580]

Table 28 Ethical issues in forensic psychological practice

General	Forensic mental health practice
Who is the client?	Enhanced scrutiny
Working for the court	Transparency
Pro se litigants	Examining of plausible rival hypotheses
Informed consent	Impression management
Confidentiality/privilege	Scientific responsibility
Competence	Bias
	Conflict of interest/professional boundaries
	Professional responsibility
	Resisting ethical compromise
	Record keeping

Adapted from Gottlieb and Coleman (2012) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.18, p. 581]

Table 29 Ethical decision-making model: a 12-point approach

Point	Description
1	Describe the ethical problem/dilemma
2	Impact of context/purpose of the service
3	Needs/roles of the evaluee/family
4	Obligations owed to involved parties (e.g., examinee(s), significant other(s), referral source, court)
5	Ethical/legal resources used/needed
6	Are personal beliefs/values affecting decision-making process/decisions?
7	Possible solutions to the ethical problem/dilemma
8	Likely consequences of each one
9	Best course of action
10	Outcome
11	Better solution needed (different, modified)?
12	Document throughout ethical decision-making process

Adapted from Bush, MacAllister, and Goldberg (2012), based on Bush and MacAllister (2010), for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 22.14, p. 578]

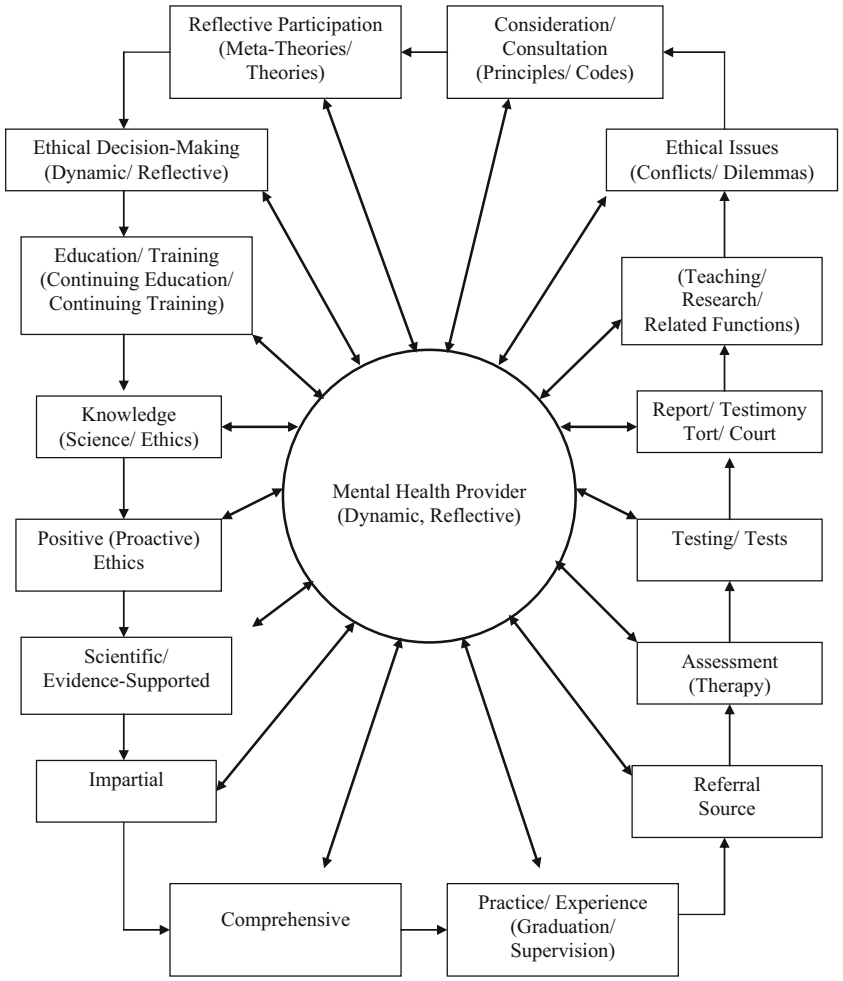

Fig. 1 Broad ethics in psychological injury and law. The figure outlines a broad ethical model for work in psychological injury and law. It is applicable to any area of practice in psychology. It describes the usual steps in education and practice, and it emphasizes a scientific and ethical approach to work in the area that is impartial and comprehensive. This way, any ethical dilemma encountered should be resolvable by referring to ethical rules/principles/ theories. Adapted from Young (2014a)

Table 30 Potential sources of bias and error

Source of bias	Explanation
Anchoring bias	Information received early in an evaluation process might be remembered better and used more than information received later on
Attribution bias	Discounting contextual factors that might account for behavior and, instead, ascribing it to a permanent attribute of the evaluee
Confirmation bias	Giving more weight to information that is consistent with one's own beliefs
Conformity effects	Conforming to the perceptions/beliefs/behavior of others people
"Halo effect"	Using evaluation of a person on a specific dimension or in general, as a basis for judgments on other dimensions
Hindsight bias	When people are aware of how an event turns out and this creates a belief that the outcome was more likely than any objective prediction would indicate
Observer effects	The thoughts, feelings, experiences, and expectations of individuals might influence their perceptions/conclusions
Overconfidence bias	The person feels certain of the conclusions offered, assumes they are valid, and does not keep an open mind in examining all of the relevant data

Adapted from Kane and Dvoskin (2011) for use in Young (2014a); with kind permission from Springer Science + Business B. V. [Table 12.14, p. 329]

Table 31 Ten fallacies in psychological assessment

Fallacy	Explanation
1. Mismatched validity	Psychometric properties might be adequate for a test in task for a population in a certain context (e.g., reliability, validity, sensitivity, specificity), but might not apply to the evaluee being assessed (e.g., validity)
2. Confirmation bias	Seek/recognize/value information consistent with our attitudes/beliefs/expectations
3. Confusion	Confusing retrospective and predictive accuracy (switching conditional probabilities)
4. Unstandardizing standardized tests	Changing test instructions/test items/how items are administered/scored; will compromise use of the actuarial base underlying the test
5. Ignoring low base rates	Ignoring the effects of base rates, especially if very low; will alter interpretations and opinions
6. Misinterpreting dual high base rates	Two factors incorrectly appear associated because both have high base rates
7. Perfect conditions fallacy	Not realizing that less than perfect assessment under used conditions significantly distort data
8. Financial bias	Financial conflict of interest can alter (subtly or otherwise) how to collect, interpret, and present information
9. Ignoring effects of recording/third-party observers	Audio recording/video recording/presence of third parties might affect evaluee behavior/response
10. Uncertain gatekeeping	Release evaluee data to people or parties legally/ethically unentitled

Adapted from Pope (2010) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 12.15, p. 330]

Table 32 Common evaluator errors

Error	Explanation
Overreliance on salient data	Clinicians tend to overestimate the prevalence of salient or unusual conditions
Representativeness	"Base-rate neglect" often leads to diagnostic errors
Failure to account for covariation	Fail to appreciate the difference between the symptoms that are highly sensitive to a wide variety of conditions and symptoms that are highly specific to a single disorder
Conservatism	Some tests will provide minimal incremental diagnostic evidence because of high correlations with other indicators
Confirmatory bias	Clinicians may unwittingly seek information that confirms a favored diagnosis
Anchoring and adjustment	Clinicians have different initial diagnostic anchors, starting points, or "prior probabilities"
Processing configural data	Clinicians have difficulty with optimally weighting and combining diagnostic information and rely, instead, on simplified decision strategies that may reject or misuse relevant information (Slovic & Lichtenstein, 1971)

Adapted from Millis (2009) for use in Young (2014a); with kind permission from Spring Science + Business Media B. V. [Table 12.16, p. 331]

Table 33 Checklist for assessment of response style in forensic examination contexts

List	Explanation
1	Consider all response styles
2	Avoid using only evaluee's self-report
3	Select response-style scales/indices/measures that fit the evaluee's reported symptoms/impairments/abilities
4	Decide if using highly correlated scales/indices/measures is appropriate
5	Avoid overinterpreting test findings
6	Clarity inferences/limitations in report/testimony
7	Ensure that all opinions about response style are "expert" (meet admissibility requirements)

Adapted from Otto (2008) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 12.25, p. 334]

Table 34 Rule of thumb: testing for response bias

List	Explanation
1	Employ multiple effort indices to provide greater confidence in conclusions
2	Utilize effort indices with adequate sensitivity
3	Select measures of response bias/cutoffs appropriate for the differential diagnosis (e.g., actual versus feigned mild traumatic brain injury, psychosis, depression) and demographic and other characteristics of the test taker (low IQ, learning disability, ethnicity/language, gender, etc.)
4	Choose a range of effort indices that encompass various cognitive domains (e.g., memory, attention, processing speed, visual spatial skills), and in particular those which overlap with claimed symptoms (e.g., decreased memory, math skills, thinking speed, etc.)
5	Provide results of effort indices in your report but in a manner that does not compromise test security (e.g., do not describe test stimuli or format)

Adapted from Boone (2011) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 12.26, p. 335]

Table 35 Methods for decreasing biases in clinical reasoning

Point	Explanation
1	Note one's assumptions, become more aware of them (e.g., "Malingering does not happen in this clinic")
2	Document the evidence and arguments both for and against these assumptions
3	Make decision-making boxes on (1) evidence for genuine disorder, (2) evidence against it, (3) evidence for malingering, and (4) evidence against it
4	Examine all the evidence before arriving at a conclusion

Adapted from Turk and Salovey (1986) for use in Young (2014a); with kind permission from Springer Science + Business Media B. V. [Table 12.23, p. 333]

Table 36 Cognitive basis of bias in forensic mental health assessment

Term	Explanation
Bias	Inappropriate personal/emotional involvement (or any systemic factor) affecting information processing and interpretations/conclusions, perhaps outside of one's awareness, thereby altering professional judgment in ways inconsistent with truth (implicit bias; explicit bias refers to purposefully putting a "spin" on the outcome of an evaluation; Neal, 2011; West & Kenny, 2011)
Heuristics	Limitations of and systematic errors in cognition related (Kahneman, 2011) to "rules of thumb" or "mental shortcuts" that could lead to error proneness via systematic biases
Debiasing solutions	Discover the problem's extent. Discover remedies for it. Systematic adjust or shift "paradigm"
Representativeness heuristic	Overemphasizing exemplars that resemble a prototypic class
Conjunction fallacy	A compounded event is evaluated more likely than an event having only one of its elements
Base rate neglect	Considering an outcome's probability of occurrence without considering information about the actual probability that it will occur
Availability	Overestimating the likelihood of an occurrence when related instances are easier to recall
Confirmation bias	Selectively seeking and interpreting data that are partial to a hypothesis, belief, or expectation, while evidence that might be disconfirming
WYSIATI (what you see is all there is)	Activated alone is organized in creating the most coherent "story" possible (non-activated information is ignored)
Anchoring	Information encountered at first is given more weight than information encountered later on
Framing/context	Drawing different conclusions from the same information in different contexts

Adapted from Neal and Grisso (2014)

Table 37 General recommendations for symptom validity testing: procedures and interpretation

Recommendation	Explanation
Procedures	
A	Keep up to date on the literature
B	Be proactive in approaching the assessment of symptom validity
C	Assess embellishment in the areas of cognitive, psychiatric, and/or behavioral symptoms, etc.
D	Use a multi-method approach, in general, not just for multi-testing. The administration of multiple tests might contribute incrementally to the validity of the assessment, but the use of multiple methods that extend beyond testing is even more likely to contribute to such validity
E	Inform the examinee at the start of the assessment and, as needed throughout, that good effort and honesty are necessary; the examiner may inform the examinee that such factors are directly assessed/examined in the evaluation
F	SVTs having the most appropriate psychometric properties should be used, and chosen in light of the characteristics of the examinee and setting
G	SVTs or measures with symptom validity indicators should be dispersed throughout the evaluation, with at least one SVT early in assessment
H	The results of symptom validity assessment need to be reported
Interpretation	
A	In arriving at conclusions, generally, data from SVTs should be given substantially greater weight than any subjective indicators of suboptimal effort (e.g., examinee statements, examiner observations). Generally, the latter indicators lack scientific evidence in support of their validity
B	Invalid performance on a measure of personality should not automatically lead to the conclusion that the neurocognitive test results obtained in an evaluation are valid, and vice versa
C	The examiner must consider the nature of the performance on SVTs administered and other evaluation findings when generalizing from the results of the SVTs to other test results
D	Nevertheless, strong evidence of invalid performance on SVTs or other indicators of symptom validity raise doubt about the validity of all neurocognitive test results. Concluding that such performance still could mean that performance on other tests is valid would need to be justified
E.	When evidence of invalid performance is found, scores on cognitive ability tests may be interpreted as representing the examinee's minimum level of ability

Table 37 (continued)

Recommendation	Explanation
F	Performance slightly below cut-off on one SVT cannot be used alone to justify an interpretation of biased responding; converging evidence from additional indicators would be required
G	If an evaluation that has been discontinued because of insufficient effort, or if invalid responding by the examinee is later continued, the evaluator should have limited confidence in the validity of the results
H	Rather than vague or misleading language, appropriate probabilistic language based on the nature/extent of convergent evidence should be employed in offering explanations of symptom exaggeration/fabrication

Adapted from Bush et al. (2005)

Table 38 Consensus AACN statement related to assessment of response bias and malingered abilities

Recommendation	Explanation
1	The most valid approach to identifying (neuro) psychological response validity lies in the use of psychometric indicators
2	Among other measures, stand-alone effort measures and embedded validity indicators should both be used
3	In their reports, (neuro) psychologists list the symptom validity measures and procedures that were used in assessments. Evaluators explain the bases of their conclusions, to the extent required, while not providing too much information about them that could compromise their use
4	Psychometric instruments containing "proven" (empirically supported) validity measures should be used to evaluate the validity of self-reported symptoms
5	Substantial inconsistencies in the relationships between test data and "real-world" activities and also between self-report and historical records are relevant, as well. Evaluators should integrate the various sources of information, and remain mindful of incomplete/false history, especially if substantially present, which may reflect negative response bias
6	The risk of response bias relates to the setting in which an evaluation is taking place; therefore, evaluators need to be aware of when the potential for litigation increases
7	Consistent with any type of psychological assessment, evaluators should routinely encourage optimal evaluee effort as a means of attaining best assessment performance
8	When substantial discrepancy is found between test results and what is known about the alleged psychiatric disorder (or medical one), evaluators should be alert to the presence of insufficient effort, response bias, and malingering
9	Because evaluee effort can vary during an assessment, evaluators should use multiple validity measures distributed throughout the testing that cover multiple domains. If the evaluation needs to be brief (e.g., in Social Security disability evaluations), at a minimum, embedded effort indicators in any neuropsychological tests used should be examined. When multiple validity indicator use is contra-indicated, the evaluator should document the reasons why and explicitly note the interpretive implications
10	Assessors will have greater confidence in conclusions regarding the validity of the examination with an increasing number and extent of findings consistent with the absence or presence of response bias (as the case may be)
11	When the characteristics of an examinee does not match those used for normative and comparisons samples of effort test construction, evaluators should choose measures accordingly and adjust interpretations
12	For evaluees claiming symptoms consistent with both a psychological disorder (e.g., depression) and ability deficits (e.g., memory), evaluators should administer measures that can evaluate response bias related to both
13	Serial evaluations can be particularly helpful in discriminating between evaluees expressing genuine injury and those expressing unrealistic performances or variable self-report of deficits and disabilities that appear to reflect variable effort and/or response bias

Adapted from Heilbronner et al. (2009)

Table 39 Consensus recommendations for evaluators addressing response bias and malingering related to assessment of psychological symptoms

Recommendation	Explanation
1	Evaluators assessing psychological issues of examinees within the forensic context need to be aware that self-report may by biased, false, or incomplete and, accordingly, they should proactively evaluate this possibility
2	In these types of examinations, cognitive, emotional, or both kinds of complaints are common co-occurrences, so that both domains should be assessed appropriately and the validity of symptoms in each determined
3	Evaluators should establish their own-practice-specific database on examinees, consisting of information derived from in-depth interview, complete history, behavioral observations, informant/collateral interview, and formal neuropsychological/psychological tests [and documentation]
4	The assessment instruments and scales used should be based on current, scientifically informed

Table 39 (continued)

Recommendation	Explanation
	methodology for the assessment of the domains of emotional/psychopathology and cognitive factors
5	Evaluators should administer multiple symptom validity measures throughout the evaluation. Evaluators will have confidence in conclusions commensurate with the number and extent of findings demonstrating consistent absence/presence of response bias
6	Because the co-occurrence of genuine psychopathology and feigned/exaggerated symptoms is common, assessors should, as much as possible, attempt to specify the relative presence of each. Also, they should be familiar with base rates of mental disorders and symptoms in the general population
7	Evaluators should use the best relevant clinical practices/assessment methodologies (instruments, scales, scoring criteria, etc.) currently available, and should have an up-to-date knowledge of the relevant scientific literature
8	Because research and clinical experience indicates that some cultural/ethnic differences exist with regard to the presentation of psychopathology, evaluators need to be encouraged to consider such factors, as appropriate, in each individual case

Adapted from Heilbronner et al. (2009)

Table 40 Ethical issues and considerations in disability evaluations

Principle	Explanation
Failing to use well-researched effort tests	The use of tests with a poor/limited empirical foundation might significantly adversely affect (a) the accuracy of conclusions (e.g., poor effort/adequate effort) and (b) the usefulness of the information
Using effort tests only for defense cases	An evaluator who uses effort tests for defense/disability evaluations but not for plaintiff ones is open to criticism of bias
Using systematically, more/fewer effort tests, depending on referral source (defendant or plaintiff)	The evaluator gives one effort test during plaintiff evaluations and does not examine performance patterns on other tests. In contrast, for defense evaluations, the evaluator gives three effort tests and examines performance patterns on multiple tests
Using different effort tests, for different sides	For plaintiff cases, but not defense cases, the evaluator uses tests that have lower sensitivity, and with forethought, which reduces the probability of detecting suboptimal effort
Using effort tests differently, depending on the side	In plaintiff cases, the evaluator gives simple effort tests or in defense cases, after much more difficult tests; such as after a battery of memory tests

Table 40 (continued)

Principle	Explanation
Alerting examinees immediately before administrating an effort test	It is appropriate to alert examinees that methods for detecting exaggeration/poor effort are part of the evaluation. However, it is inappropriate to subtly or directly alert them immediately before any such test is administered (e.g., by saying "We use tests designed to detect poor effort"). The latter alert can greatly reduce a test's sensitivity
Interpreting effort test results systematically, different depending on the side	For example, plaintiff cases, systematically interpreting effort test failure as a "cry for help" or "distraction due psychological factors or pain," while, in defense cases, attributing this to "malingering"
Assuming passing an effort test means "full"/"complete"/"best" effort in an evaluation	There are four reasons why this assumption might be incorrect. (a) Passing an effort test does not necessarily mean that the examinee gave the best effort in the evaluation. Adequate effort on a single test cannot be generalized to best effort across many tests. Good effort should be considered "adequate," not "best," and concluded on the basis of converging evidence (e.g., careful behavioral observations and performance on one or more effort tests). (b) Even in most analog malingering research, a subset of participants appears to deliberately fake deficits during testing and yet is not detected as malingerers with the procedures used in the study. Also, false-negative rates might be quite high on tests designed to detect poor effort in research because researchers tend to select cutoff scores aimed at minimizing false positives. (c) An examinee might not consciously choose to underperform on a test, or only to underperform to a small degree on that test; whereas, on other tests poor effort might be more prominent. (d) Attorney coaching could be a factor affecting performance on a specific test
Interpreting as malingering isolated effort test failure/exaggerated symptoms	Effort tests do not measure directly malingering; they measure behavior that might be associated with malingering. Malingering is inference made by the evaluator, but not from a single test; rather, this conclusion is derived from converging evidence that the examinee had been deliberately exaggerating symptoms and/or is performing poorly on testing in order to increase the probability of obtaining an obvious external incentive. It is possible that an evaluee scoring below an empirically derived cutoff of a single test designed to detect poor effort could be either (a) false positive or (b) from someone who had performed

Table 40 (continued)

Principle	Explanation
	poorly for reasons other than those associated with malingering, and even deliberately so (e.g., general uncooperativeness or serious psychiatric disturbance). The attribution of malingering is complex and requires multiple sources of converging evidence, which might not even be available. Or, the evaluator might consider that a conclusion of malingering is simply too provocative and pejorative for one's comfort level. Nevertheless, the evaluator could discuss exaggeration and poor effort as behavior without making the inference of malingering. Whatever the conclusion, the evaluator should list all reasonably possible diagnoses or explanations that might account for the assessment data and make clear the evidence that leads to one interpretation being favored more strongly than any other. The evidence might be insufficient to decide among two or more alternative diagnoses/explanations. It could help to use the definitional descriptors of effort (e.g., adequate, possibly poor, probably poor, definitely poor) and exaggeration (e.g., underendorsement of symptoms/problems, accurate reporting, and possible, probable, and definite exaggeration)
Inappropriately interpreting exaggeration as a "cry for help"	The underlying motivation for exaggeration (or poor effort) during testing could be very difficult to infer. Evaluators should not simply interpret routinely poor effort for the cause of the exaggeration as a "cry for help." Any explanation for exaggeration (including malingering), or deliberate misrepresentation of symptoms and problems to influence the results of a forensic evaluation, should be based on clear converging evidence. An evaluator's conclusion in this regard could be considered biased if the threshold used is much lower that his latter point, relying on much less evidence
Incompetent, irresponsible, uninformed use of tests	Evaluators should not simply rely on test manuals. Evaluators need to actively keep up-to-date in the literature on the specific tests used in their assessments

Adapted from Iverson (2006)

Table 41 Ten ethical principles: a collective intelligence approach

Principle	Explanation
From APA ethics code	
1. Beneficence/ nonmaleficence	Do good/not harm
2. Fidelity/ responsibility	Establish trust with patients/other with whom one works
3. Integrity	Emphasize accuracy/honesty/truthfulness
4. Justice	Involves fairness, equal access to services, its quality
5. Respect for rights/ dignity	Respect (a) the dignity worth of all people and (b) the individual's rights to privacy/confidentiality/auto-determination
Additions from collective intelligence approach	
1. Ethics as system	Ethics is a system involving learned sources, the person, and the context, all of which are dynamically changing
2. Ethics as science/ science as ethics	Ethics and science are mutually interacting and regulatory
3. Ethics and test limits	The ethical use of tests involves knowing their strengths and acknowledging their limits
4. Ethics and law	Ethical forensic work is based on intimate knowledge of all aspects of law and court functioning
5. Ethics in SVTs/PVTs	The ethics that apply to psychological practice, in general, and forensic-related practice, in particular, apply to SVTs/PVTs

The APA ethics code (2010) is based on five ethical principles. In elaborating a Consensus Statement on use of SVTs/PVTs in psychological injury cases, five more principles were considered necessary to cover the material on the matter. Together, the ten ethical principles form an integrated system approach toward a theory of ethics. Codes derive from principles, which should have an overarching theory. One approach to ethical thought is that in ethical thinking mental health professionals should use self-reflective judgment (Kitchener & Kitchener, 2012) coupled with meta-theoretical thinking. Based on this the model, another was developed using the approach of Collective Intelligence, as defined in Young's (2011) Neo-Piagetian model of post-formal abstract thought. In this adult stage of thought, adults graduate to creating superordinate (collected) abstract structures, while putting together (collecting) cognitive and emotional processes in pragmatic lived application, and working together (collectively) (e.g., brainstorming) in doing so. The present ethical model has added five ethical principles to the five of the APA ethic code that are consistent with a Collective Intelligence approach. For example, it considers mental health ethics as systemic, and integrated with science and law, including in testing (e.g., SVTs/PVTs)

Table 42 Consensus statement on use of psychological testing in detecting response bias, including possible malingering: five ethics principles and comments based on the APA ethics code

Principle	Explanation and comment (Below each explanation)
1. Beneficence/ nonmaleficence	Do good not harm *Comment.* This quintessential, superordinate ethical and moral value either implicitly or explicitly governs both every general ethics and practice guideline, code, or regulation in medical and mental health and every one of its specific principles, tenets, rules, examples, and resolution to dilemmas offered. In this sense it applies to forensic and related work in which psychosocial tests are used, in general, and symptom validity test/testing (SVT) or performance validity test/testing (PVT) is used, in particular. The same applies to any consensus statement of the use of psychological tests in detecting response bias, including possible malingering. Both the field, in general, and the individual practitioner, specifically, shall neither act in a way nor condone any behavior, including in test construction and use, that violates this basic overriding governing principle of "do good and not harm." Of course, doing good does not refer to what is best for the referral source or examinee in this context but to the highest standards of ethical and scientific work in the field
1.2. Fidelity/ responsibility	Establish trust with patients/other with whom one works *Comment.* Mental health practice is a human contact one that requires establishing rapport and trust so that one's work can proceed effectively and with integrity. Good rapport is needed as well as trust, except where not possible in work situations, such as consultation. In the forensic work situation, the examinee might not be the "client," who might be the referral source instead; nevertheless, the obligation on the part of the worker is to establish rapport and trust to the degree possible. Examinees might be hostile, evasive, poor historians, etc., but at ethical level, the forensic worker deals dispassionately with these impediments and functions with the needed integrity, without worsening the situation, so that the examinee is responsible in toto for her/his behavior. Granted, there might be a history of litigation/insurance iatrogenic/ lexogenic distress and influence, but the evaluator explains at the outset his/her neutral, balanced, impartial approach and that he/she is working for the court and its requirements rather than for any one party or referral source, per se, including the examinee, her/himself. In terms of SVTs/PVTs, specifically, the worker approaches the function of the testing/tests in the same way—all decisions and choices made. Further, the manner of administration of all such tests are applied in a way that adds to the trust established and/or does not alienate further an already distrustful examinee. The use of the best scientific foundations for test selection and their application constitutes the best external basis for assuring the establishment of trust in any forensic working relationship. The use of the best personal and professional strategies and tactics in creating rapport and trust constitutes the best scientific basis in this regard. Mental health workers know and apply such "common" factors in their work in any content, forensic or not. An approach such as this will serve to optimize examinee presentation and performance in the evaluation at hand, including on SVTs/PVTs. The ultimate responsibility of the forensic worker is to the court and self (with their calls to the highest ethical standards) rather than to the examinee or referral source, per se As for other aspects of responsibility, workers strive to maintain their independence, nonpartisanship, and accountability and absence of conflict of interest by avoiding presenting to court misleading, incomplete, unrepresentative, or otherwise biased data and interpretations. With respect to SVTs/PVTs, this would especially refer to using appropriate test selection, scoring, and interpretation, avoiding their sole use in arriving at conclusions/opinions, so that all the reliable data needed to be gathered for a case at hand are collected impartially, comprehensively, and scientifically
1.3. Integrity	Emphasize accuracy/honesty/truthfulness *Comment.* The hallmark of ethical practice/behavior lies not only in beneficence/nonmaleficence and fidelity/responsibility but also in integrity (accuracy, honesty, truthfulness). Forensic workers strive to present accurate, unbiased data and interpretations that reflect the truth as best can be ascertained in their cases. They consider all relevant reliable and valid data in the case at hand, gathered comprehensively and using a multitrait/source method to the degree possible, doing so in the same way no matter the referral source and their stance in the plaintiff/defense (adversarial) divide. In terms of application of this principle to work with SVTs/PVTs, the forensic worker exhibits integrity in dealing with the referral source, examinee, and court or related venues, including in all aspects of evaluating the examinee, selecting and administering tests, and interpreting them
1.4. Justice	Involves fairness, equal access to services, its quality *Comment.* In the forensic and related context, fairness in court is a primary goal to which workers aspire. Truthfulness might be difficult to ascertain perfectly, and the standard of proof needed in a case bears a degree of uncertainty, which is more liberal in civil and tort-type and disability cases ("more likely than not" compared to "beyond a reasonable doubt"). Experts are bound to offer evidence to court that is more probative than prejudicial, fit the case, and help the tier of fact deliberate on the ultimate issue. Forensic workers are aware of the justice conceptions in court. Moreover, they function from a stance of justice themselves, being fair, thereby providing equal access and quality services to all reliable referral sources and their referred examinees
1.5. Respect for rights/ dignity	Respect (a) the dignity worth of all people and (b) the individual's rights to privacy/confidentiality/auto-determination *Comment.* Mental health workers, in general, including forensic ones, respect and express dignity for all individuals and groups for their unique (individualized, common) characteristics and group ones (e.g., culture, minority, race, language, country of origin, sex, sexual orientation, disability status, age, socioeconomic status), and for their rights and dignity in these regards. In the forensic-type situation, such an attitude will guide the assessment process so that it contributes legally reliable (valid) information (report, testimony) to court that is sensitive to and takes into account factors such as culture and minority status. Tests, including SVTs/PVTs used in assessments, as well as the general assessment procedure and test administration, will take into account any factors such as those mentioned that could influence the data gathered and the

Table 42 (continued)

Principle	Explanation and comment (Below each explanation)
	consequent interpretation. Moreover, the steps needed to ensure confidentiality/privacy, voluntary and informed consent, and self-respect/determination within the confines of the forensic task and demands at hand, are followed rigorously. An issue in this regard relates to informing examinees of the use of SVTs/PVTs, or tests of their nature. In one sense, these tests constitute a certain degree of deception, but they stand as necessary in these types of examinations. Therefore, they can be explained when obtaining voluntary, informed consent, in general; however, just before administering them, the examinees should not be forewarned about their upcoming administration, or their validity and utility could be compromised

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Table 43 Consensus statement on use of psychological testing in detecting response bias, including possible malingering: based on additional ethics principles

Principle	Explanation and comment (below each explanation)
1.6. Ethics as system	Ethics is a system involving learned sources, the person, and context, all of which are dynamically changing *Comment.* Ethics is the result of an awareness/thought/behavior dynamic, continuously interactive and evolving process among ethical theory, principles, codes/regulations/guidelines, rules, and items/articles, within a broad, proactive, self-governed nexus in which the person should be reflective and personally responsible for all ethical decisions and actively involved in resolving and seeking out pertinent potential ethical dilemmas, which are often quite problematic without clear answers. None of formal ethical codes, licensing proscriptions, and even legal obligations can supplant proper personal ethical awareness/thought/behavior and reflection in one's ethical professional practice, although contextual factors are recognized In terms of forensic practice, workers need to understand the wide system in which they work, the obligations it imposes, and the personal responsibility for their behavior and work product that, nevertheless, they bear. As for SVTs/PVTs use, this principle dictates that their selection, use, and results interpretation are the responsibility of the practitioner in dialogue with the appropriate ethical stance to take, rather than to the referral source, examinee, or any other stakeholder. Moreover, the worker knows the limits of the test manuals, computer print-outs, and information associated with the tests (especially the interpretation), and the science in the manuals and literature associated with the tests. In this way, in proffering evidence to court, the worker is assured of functioning at the apex of ethical activity within the system at issue
1.7. Ethics as science/Science as ethics	Ethics and science are mutually interacting and regulatory *Comment.* Ethics is a system of regulating behavior so that it is beneficent and not maleficent, although there are risk/benefit ratios to consider especially in some cases (e.g., medical). Science is a system, as well, one toward the search for replicable and valid information about the world via appropriate observation, appropriate methods, including experimentation, where possible, and appropriate reasoning. Scientists, as much as mental health practitioners are fallible, and both need constant self-supervision of ethical awareness, thought, behavior, decisions, and practice. Science informs ethics through the knowledge it provides, about the world, especially about behavior, psychological practice, and testing, in the present context. Also, ethics informs science, especially by the moral prescriptions and aspirations it holds up to it In the forensic and related context, workers have been educated and trained in the scientific traditions and foundations of the profession. They have learned about how research is conducted, how tests are constructed, and how SVTs/PVTs provide data on different degrees of probability of response bias, including of possible malingering, but all in the context of associated doubt (e.g., in confidence intervals, probabilities, sensitivity, specificity, cut scores, aside from general uncertainty about research, per se (e.g., as exemplified in alpha level)). The research on all aspects of forensic-type practice keeps being updated and the accumulated knowledge base one needs to know in order to practice ethically and effectively keeps changing. Workers in the field need to keep abreast of the current literature, be able to defend all components of their assessment procedures, methods, technologies, and practices, including in testing, in general, and for SVTs/PVTs, in particular, and be able to justify all interpretations, and opinions derived from court and related venues. Moreover, they need to be able to explain how alternative hypotheses do not explain well all the reliable data gathered in a case at hand compared to preferred ones. For both justifying preferred hypotheses and invalidating alternative ones, all the reliable data gathered is considered and analyzed. In all reasoning, the basis used is scientific, or careful, prudent, comprehensive, critical, analytic, and systematic, with all variables considered and given their appropriate weight. The reliability and validity of the opinion/testimony offered to court, the report/evidence at its base, and all methods/procedures/techniques/tests (including SVTs/PVTs) used should be unassailable.
1.8. Ethics and test limits	The ethical use of tests involves knowing the strengths and acknowledging their limits *Comment.* Compromises to reliability and validity of tests in the forensic context also include the degree to which they have been normed on the population to which the examinee corresponds. This is an example of test having limits, and in all such cases, they need to be explicated well. When the limits of a test excessively compromise reliability/validity, and if used nonetheless, its use in assessment needs to be explained, in light of the science

Table 43 (continued)

Principle	Explanation and comment (below each explanation)
	behind the test, as well as any data derived from the test's use in the case at hand. The task is more difficult for newer or just-released methods, procedures, tests, or techniques, and the workers bear greater responsibility in demonstrating general acceptance
1.9. Ethics and law	Ethical forensic work is based on intimate knowledge of all aspects of law and court functioning *Comment.* In the forensic arena, the admissibility of evidence is governed by SCOTUS decisions, and Federal Rules of Evidence and state laws often aligned with them. These decisions refer to the gatekeeping function of the court and the criteria of good compared to poor or "junk" science that it mediates. Generally, evidence proffered to court must be not only generally accepted but also falsifiable, testable, and with known error rate as well as being generally reliable (replicable), valid (which means "legally" reliable), fit (to the case), and relevant (or helpful). These are all important considerations for tests, in general, and SVTs/PVTs, in particular.
1.10. Ethics in SVTs/PVTs	The ethics that apply to psychological practice, in general, and forensic-related practice, in particular, apply to SVTs/PVTs *Comment.* Their use and their data interpretation, as well as the latter's conclusions, should follow the highest of ethical standards, as per the following ten points:
1.10.1.	Forensic workers in the position to use SVTs/PVTs are familiar with and practice consistent with all relevant practice, ethical, and legal/legislative requirements, including the present ethics statement and extent consensus statements (Bush et al., 2005; Heilbronner et al., 2009)
1.10.2.	SVTs having the most appropriate psychometric properties should be used, and they should be chosen in light of the characteristics of the examinee and setting
1.10.3.	The full range of possible response bias should be considered in interpreting SVT/PVT data. In the case of negative response bias, this includes possible mild exaggeration right up to the full malingering
1.10.4.	All interpretations so derived are based on consideration of all the relevant reliable data, and then considered in conjunction with the full data set gathered in the assessment undertaken (e.g., from examinee interview, collaterals, records), which must be comprehensive. These other data sets might contain substantial inconsistencies/discrepancies. Only those conclusions that best fit the full data set gathered should be offered in opinions/testimony, independent of the hopes/needs/pressures of the referral source
1.10.5.	Malingering should be attributed only when there is incontrovertible evidence. Nevertheless, quite evident problematic presentations/performances can be described in ways by astute observers that indicate their nature (e.g., feigning, deception, dissimulation, noncredible). The description used should always fit the nature of the data gathered
1.10.6.	Evaluators list all SVTs/PVTs used, all omnibus (personality) tests that include respondent validity scales, etc. The other major types of test with validity measures include standardized interview measures (e.g., of feigned psychopathology), dedicated psychological injury tests (e.g., for PTSD/trauma), and embedded scales/measures in a neuropsychological battery. To the degree possible, assuming the testing context permits them, these latter measures should be distributed throughout the assessment in a fair way. These multiple assessment strategies for response bias are especially necessary when evaluees are claiming multiple types of deficits/impairments (cognitive, emotional, corporal/pain)
1.10.7.	Evaluators using SVTs/PVTs are wary of inferring motivation, volition, intention, and consciousness when there is insufficient evidence. At the same time, they do not shy away from this judgment when sufficient evidence is available. Evaluators do not consistently use preferred inferences, such as malingering or a "cry for help," unless the evidence is excessively supportive
1.10.8.	Evaluators using SVTs/PVTs, and related measures with response validity indicators understand the various items and definitions needed to do their work, and how to resolve inconsistencies therein in their conclusions for court. They understand the various inconsistencies within and across relevant ethics, codes, professional guidelines, practice regulations, legal/legislative frameworks, and consensus statements, and can address them effectively to court
1.10.9.	Evaluators who are evaluating varying whether any degree of response bias should be attributed to evaluees should always be checking their own biases, external incentives, etc. Any influences that detract from an unbiased approach to evaluations need to be brought to the surface and countered
1.10.10.	Evaluators might use the most psychometrically sound and appropriate instruments but have their biases expressed in aggregating/combining methods over them. For example, at one extreme, they might use methods that lead to Type I error, or lean toward finding inappropriately malingering. Conversely, at the other extreme they might avoid aggregating methods altogether instead of using them judiciously, and use exclusively clinical, subjective judgments, which has its own risks

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Table 44 Tests/scales/measures of response bias: (two-alternative) forced-choice instruments

Test abbreviation	Test name	Source
ASTM	Amsterdam Short Term Memory Test	Jelicic, Merckelbach, Candel, and Geraets (2007)
CARB	Computerized Assessment of Response Bias Test	Allen, Conder, Green, and Cox (1997); Conder, Allen, and Cox (1992)
DMT	Digit Memory Test	Hiscock and Hiscock (1989)
FCTNA	Forced-Choice Test of Nonverbal Ability	Frederick and Foster (1991)
HDMT	Hiscock Digit Memory Test	Hiscock and Hiscock (1989)
MDMT	Multi-Digit Memory Test	Niccolls and Bolter (1991)
MPS	Malingering Probability Scale	Silverton (1999)
MSVT	Medical Symptom Validity Test	Green (2004)
NV-MSVT	Nonverbal Medical Symptom Validity Test	Green (2008)
PDRT	Portland Digit Recognition Test	Binder (1993), Binder and Willis (1991)
PDS	Paulhus Deception Scales	Paulhus (1998)
TOMM	Test of Memory Malingering	Tombaugh (1996)
VIP	Validity Indicator Profile	Frederick (1997)
VSVT	Victoria Symptom Validity Test	Slick et al. (1997/2005)
WMT	Word Memory Test	Green (2005)

Table 45 Tests/scales/measures of response bias: embedded neuropsychological tests

Test abbreviation	Test name	Source
ACS	Advanced Clinical Solutions	Holdnack and Drozdick (2009)
ACSS	Age-Corrected Scaled Score	Wechsler (1987)
AVLT RMT	Rey Auditory Verbal Learning Test Recognition Memory Test	Binder, Villanueva, Howieson, and Moore (1993)
b-test	b-test	Boone, Lu, and Herzberg (2002)
BVMT-R	Brief Visuospatial Memory Test, Revised	Benedict (1997)
CVLT-II	California Verbal Learning Test, Second Edition	Delis, Kramer, Kaplan, and Ober (2000)
CVMT	Continuous Visual Memory Test	Trahan and Larrabee (1988)
DF	Discriminant Function	Mittenberg, Patton, and Legler (2003)
FTT	Finger Tapping Test	Heaton, Grant, and Matthews (1991)
HRB	Halstead-Reitan Battery	Reitan and Wolfson (1993)
LMR	Logical Memory Recognition	Killgore and DellaPietra (2000)
RAVLT	Rey Auditory Verbal Learning Test	Schmidt (1996)
RCFT	Rey Complex Figure Test	Meyers and Volbrecht (1999)
RBANS	Repeatable Battery For Assessment Of Neuropsychological Status	Randolph (1998)
RDS	Reliable Digit Span	Greiffenstein et al. (1994)
RDCT E-score	Rey Dot Counting Test	Rey (1941)
RMFIT	Rey 15-Item Memory Test	Rey (1941)
RMT	Recognition Memory Test	Warrington (1984)
ROCFT	Rey-Osterreith Complex Figure Test	Lu, Boone, Cozolino, and Mitchell (2003)
RWRT	Rey Word Recognition Test	Rey (1964)
SRT	Seashore Rhythm Test	Reitan and Wolfson (1993)
SSPT	Speech Sounds Perception Test	Reitan and Wolfson (1993)
VFDT	Visual Form Discrimination Test	Benton, de Hamsher, Varney, and Spreen (1983, 1994)
WAIS-III	Wechsler Adult Intelligence Scale, Third Edition	Wechsler (1997)
WCST-FMS	Wisconsin Card Sorting Test, Failure-To-Maintain Set Score	Suhr and Boyer (1999)
WCT	Word Choice Test, in the WMS-IV	Wechsler (2009)
WMI	Working Memory Index	Wechsler (1997a)
WMS-III-VPA	Wechsler Memory Scale, Third Edition, Verbal Paired Associates-2 Scale Score	Wechsler (1997a)

Table 46 Tests/scales/measures of response bias (or applicable): pain (related)

Test abbreviation	Test name	Source
BBHI-2	Brief Battery for Health Improvement, Second Edition Defensiveness Scale	Disorbio and Bruns (2002)
BHI-2	Battery for Health Improvement, Second Edition Defensiveness Scale	Bruns and Disorbio (2003)
DPQ	Dallas Pain Questionnaire	Lawlis, Cuencas, Selby, and McCoy (1989)
LAQ	Life Assessment Questionnaire	Tearnan and Ross (2012)
	Feigning	
	True-False Bias	
	Maximum-Minimum (1st)	
	Maximum-Minimum (2nd)	
	Nonsensical Symptoms	
	MD's Critical List	
	Infrequent Symptoms	
	Unusual Symptom Combinations	
MBMD	Millon Behavioral Medicine Diagnostic	Millon, Antoni, Millon, Meagher, and Grossman (2000)
MPI	Multidimensional Pain Inventory	Kerns, Turk, and Rudy (1985)
MSPQ	Modified Somatic Perception Questionnaire	Main (1983)
PCS	Pain Catastrophizing Scale	Sullivan, Bishop, and Pivik (1995)
PDI	Pain Disability Index	Tait, Chibnall, and Krause (1990)
PDQ	Pain Disability Questionnaire	Anagnostis, Gatchel, and Mayer (2004)
PQAS	Pain Quality Assessment Scale	Jensen, Gammaitoni, Olaleye, Oleka, Nalamachu, and Galer (2006)
SF-MPQ	Short-Form McGill Pain Questionnaire	Melzack (1987)
SOPA	Survey of Pain Attitudes	Jensen and Karoly (2007)

Note that only the BBHI-2, the BHI-2, and the LAQ have negative impression management scales

Table 47 Tests/scales/measures of response bias: posttraumatic stress disorder (PTSD)

Test abbreviation	Test name	Source
CAPS	Clinician-Administered PTSD Scale	Blake et al. (1995)
DAPS	Detailed Assessment Of Posttraumatic Stress	Briere (2001)
NB	Negative Bias	
MENT	Morel Emotional Numbing Test	Morel (1995, 1998)
MENT-R	Morel Emotional Numbing Test—Revised	Messer and Fremouw (2007)
TSI	Trauma Symptom Inventory	Briere (1995)
TSI-2	Trauma Symptom Inventory-2	Briere (2011)
ATR	Atypical Response	

Table 48 Tests/scales/measures of response bias: (psychopathology) structured interviews

Test abbreviation	Test name	Source
M-FAST	Miller Forensic Assessment of Symptoms Test	Miller (2001)
RO	Reported vs. Observed	
ES	Extreme symptomatology	
RC	Rare Combinations	
UH	Unusual Hallucination	
USC	Unusual Symptom Course	
NI	Negative Image	
S	Suggestibility	
Tot	Total	
SIMS	Structured Inventory of Malingered Symptomatology	Widows and Smith (2005)
LI	Low Intelligence	
AF	Affective Disorders	
N	Neurologic Impairment	
P	Psychosis	
AM	Amnestic Disorders	
Tot	Total	
SIRS	Structured Interview of Reported Symptoms	Rogers et al. (1992)
RS	Rare Symptoms	
SC	Symptom Combinations	
IA	Improbable or Absurd Symptoms	
BL	Blatant Symptoms	
SU	Subtle Symptoms	
SEL	Selectivity of Symptoms	
SEV	Severity of Symptoms	
RO	Reported vs. Observed Symptoms	
DA	Direct Appraisal of Honesty	
DS	Defensive Symptoms	
OS	Overly Specified Symptoms	
INC	Inconsistency of Symptoms	
SO	Symptom Onset and Resolution	
SIRS-2	Structured Interview of Reported Symptoms, Second Edition	Rogers et al. (2010)
RS	Rare Symptoms	
SC	Symptom Combinations	
IA	Improbable or Absurd Symptoms	
BL	Blatant Symptoms	
SU	Subtle Symptoms	
SEL	Selectivity of Symptoms	
SEV	Severity of Symptoms	
RO	Reported vs. Observed	
MT index	Modified Total Index	
RS-total	Rare symptoms Total	
IF	Improbable Failure	
SS index	Supplementary Scale Index	

Table 49 Tests/scales/measures of response bias: personality and related inventories

Test abbreviation	Test name	Source
HHI	Henry-Heilbronner Index	Henry, Heilbronner, Mittenberg, and Enders (2006)
MCMI-III	Millon Clinical Multiaxial Inventory, Third Edition	Millon (1994), Millon, Davis, and Millon (1997)
MMDS	Malingering Mood Disorder Scale	Henry et al. (2006)
MMPI-2	Minnesota Multiphasic Personality Inventory, Second Edition	Butcher et al. (1989); Butcher et al. (2001)
F	Infrequency Scale	
Fb	Infrequent Responses, Back	
Fp	Infrequency Psychopathology Responses	
RBS	Response Bias Scale	
FBS	Fake Bad Scale	
MMPI-2-RF	Minnesota Multiphasic Personality Inventory, Second Edition Restructured Form	Ben-Porath and Tellegen (2008/2011)
F-r	Infrequent Response	
Fp-r	Infrequent Psychopathology Responses	
Fs	Infrequent Somatic Responses	
FBS-r	Symptom Validity Scale, Revised	
RBS	Response Bias Scale	Gervais et al. (2007)
HHI-r	Henry-Heilbronner Index-R	Henry, Heilbronner, Algina, and Kaya (2012)
PAI	Personality Assessment Inventory	Morey (1991, 2007)
NIM	Negative Impression Management	
MAL	Malingering Index	
RDF	Rogers Discriminant Function	
PDS	Paulhus Deception Scales	Paulhus (1998)
RNBI	Ruff Neurobehavioral Inventory	Ruff and Hibbard (2003)
NB	Negative Impression Management Scale	

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