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***Response to Commentary on The Case Formulation Approach
to Psychotherapy Research Revisited***

**In Support of Evidence-Based Case Formulation in Psychotherapy
(From the Perspective of a Clinician)**

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ABSTRACT

Persons (2013) has commented on my article (Eells, 2013) about revisiting the case formulation approach to psychotherapy research. I elaborate on her ideas by advocating for an evidence-based case formulation (EBCF) model of psychotherapy practice. The latter encourages clinician freedom of choice to select a case conceptualization and treatment plan, as long as those choices are empirically defensible. While the EBCF approach is intellectually challenging for clinicians, it has the advantage of being flexible in accommodating evidence, including but not limited to that derived from randomized clinical trials. The EBCF approach is preferable to the untenable position of relying primarily on one's personal experience as a therapist or primarily on intuition. The EBCF approach is an empirically defensible alternative to the empirically supported treatment (EST) movement. Clinical judgment is emphasized more in the EBCF approach than in ESTs. Conditions are described under which intuition in context can be trusted as one of a number of components of evidence-based practice. Finally, since therapists practicing ESTs tailor treatment to meet patient needs as they arise, a false dichotomy may exist between the EST and EBCF approaches when considering psychotherapy as it is actually practiced. A mixed-methods research agenda that examines the case formulation hypothesis can help determine whether such a false dichotomy exists, while advancing knowledge of psychotherapy as it unfolds in practice.

Key words: case formulation; empirically supported treatments (ESTs); randomized clinical trials (RCTs); psychotherapy practice; case studies; clinical case studies

Persons (2013) has commented on my article, "The Case Formulation Approach to Psychotherapy Research Revisited" (Eells, 2013). It is difficult to respond to Persons' commentary since I find myself agreeing with everything she says (which undoubtedly says a lot about why I wrote the original article in the first place). As I read her article I found myself wanting to say, "Right! Right! And right there, too!" But that would not make much of a response to her commentary, so I have decided to discuss a subtext to my article, one that

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is probably not particularly well disguised, but is nevertheless an implicit preference that I now make explicit. It is simple: I advocate for a mixed-methods psychotherapy research agenda that includes an evidence-based case formulation approach as an addition to the randomized clinical trial (RCT) because I prefer, even strongly prefer, an evidence-based case formulation (EBCF) approach in psychotherapy practice, especially over what I see as its alternatives. My fundamental professional identity is that of a psychotherapist. Consequently, I first approach the question of a case formulation approach to psychotherapy research from the standpoint of a clinician.

ADVANTAGES OF THE EBCF APPROACH

Why do I prefer the EBCF approach? For one, it gives me the freedom to choose how to think about my patients and which interventions will be most beneficial. I do not have complete freedom, and do not want it, since the approach is constrained by the discipline of an evidence-based perspective. From the evidence-based standpoint, the first question in any issue regarding formulation or intervention is whether evidence exists to support it. The EBCF approach is also constrained by the use of progress monitoring, which tells me, among other indicators, whether the treatment is succeeding or not. I know that I am subject to the same cognitive biases (Kahneman, 2011) that anyone else is, including overconfidence—imagining that treatment is going better than it actually is—as well as hindsight bias, or the tendency to imagine my impact on outcome was more predictable than it actually was; and confirmation bias, which is a tendency to overestimate my successes and underestimate my failures. All these biases keep me feeling fine as a clinician, but they don't contribute to improving my skills. Progress monitoring keeps me honest in that it provides a relatively objective perspective about how the treatment is going. It also allows me to exercise my expertise and freedom as a clinician, knowing that I am receiving corrective feedback the whole way through.

I also like the intellectual challenge of the evidence-based case formulation approach to psychotherapy. I like that it demands that I stay current in psychotherapy process and outcome research, psychopathology research, longitudinal studies related to psychological health and illness, and research in cognitive science. I like that the EBCF approach embraces this broad perspective on evidence. I recently became aware of a study showing that married individuals tend to overestimate the percent of housework they do relative to that of their spouse (Ross & Sicoly, 1979). That is, if you ask a husband and wife what percent of household duties they perform, the total each gives you will almost always add up to greater than 100 percent. This phenomenon has been explained in terms of the availability heuristic (Kahneman, 2011, p. 128), the idea established by cognitive scientists that we tend to make decisions based on how readily information comes to mind. Thus, we overestimate our own housework and underestimate our partner's share since our own contributions are much more available to awareness than is their contribution. I found the results of this study useful in working with a married couple. They were able to accept its findings and gain better understanding of each other.

A third reason I like the EBCF approach is that it allows for considerable flexibility in treatment. It gives me the opportunity to incorporate recent clinical findings into my explanatory hypothesis and treatment plan. For example, when I became aware of Nolen-Hoeksema's

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(Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008) research on the role of rumination in depression and ways to manage rumination, I incorporated this work into my clinical practice.

Another example of the flexibility afforded by the EBCF approach is of a highly anxious patient with panic attacks who exhibited catastrophic thinking. He was convinced that he would lose his job despite years of positive performance reviews. If he lost his job, the chain of thought went, he would no doubt lose his home and no longer be able to support his young children, causing his wife to divorce him, confirming his core belief that he was a failure. He had practically no savings and had accrued some credit card debt, which added to his anxiety. As part of the treatment, we developed a plan for him to pay off his debt and build up savings of three to six months of living expenses as a financial cushion. He took initial steps in this direction, consequently felt much more in control of his finances, and his anxiety decreased markedly. Eventually he worked up his courage to find a new job, which led to further gains and sustained reduction in his anxiety and panic symptoms. Thus, identifying, prioritizing and then addressing a financial problem helped solve a psychological one. We had previously worked on breathing and relaxation techniques, as well as cognitive skills to manage his anxiety. These techniques were helpful, but his sudden gain occurred only after addressing his perceived financial vulnerability. I know this case was successful with as much confidence as any RCT researcher knows his/her patients are successful, at least in regard to symptom reduction, since I used progress monitoring to measure outcome. It is reassuring that my measure of outcome is the same as those used in RCTs.

PRACTICING WITH LITTLE ATTENTION TO PSYCHOTHERAPY RESEARCH

I contrast the freedom, the cognitive challenge, and the flexibility of the EBCF approach with what I see as two alternatives, broadly speaking. One is to practice psychotherapy with little or no genuine attention to the vast body of research about psychotherapy. A recent review article confirmed what many of us likely suspected: when making clinical decisions the vast majority of practicing clinicians value their personal experience more than scientific evidence (Baker, McFall, & Shoham, 2009). There are enormous problems with this approach to clinical work. First, our own clinical experience is a highly limited and biased sample upon which to base clinical decision making. Again, the *availability heuristic* comes into play. A clinician who specializes in treating one disorder, say bipolar disorder, is more likely to diagnose the next patient as bipolar when relying only on clinical experience. He or she will be prone toward overvaluing information that comes most easily to mind, which is patients with bipolar disorder, and undervaluing information that does not come to mind, that is, information about patients without bipolar disorder. Viewed from a different perspective, that clinician is likely to ignore base rates. The base rate of bipolar patients in that clinician's clinical case load is vastly greater than the 1% estimated base rate of bipolar disorder in the United States population (Merikangas et al., 2007). As a consequence, the clinician relying primarily on clinical experience is likely to disregard, or simply be unaware of, the implications of the population base rate and overdiagnose bipolar disorder, which of course has consequences for treatment and outcome.

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This process starts a vicious cycle since the clinician's case load will increasingly include false positives—patients diagnosed as bipolar who are not actually bipolar—thus further distorting that clinician's cognitive representation of what constitutes bipolar disorder. While this cycle exacerbates the problem of overdiagnosis, it is easily predicted by the *representative heuristic* (Kahneman, 2011), which involves making judgments based on how well a situation matches a prototype of that or similar situations that are stored in memory without regard to other important relationships and probabilities, such as base rates.

From yet a third perspective, we are all subject to *confirmation bias*, so if that same clinician sees anything that resembles bipolar-like behavior, he or she is likely to use that information to confirm the initial diagnosis and to ignore disconfirming evidence. The famous study by Rosenhan (1973) about "being sane in insane places" illustrates the power of initial impressions despite countervailing evidence otherwise. The point about overvaluing experience applies not only to diagnosis, but also to the clinician's selection of problems to attend to, the explanatory hypothesis that explicitly or implicitly guides decisions, the treatment plan, and interventions.

The problem of overvaluing clinical experience is made well by Ruscio (2007) when he compares the evidentiary value of clinical experience with that of scientific research. He notes a double standard of evidence is applied to one's own experiences as compared to information from other sources. He challenges readers to describe how they might evaluate evidence drawn from personal experience if that evidence retained all its characteristics, except the fact that it came from personal experience. He suggests one could describe that evidence as follows: it is unsystematically sampled, lacks completeness and context due to the effects of selective memory, is not from a study in which patients were randomly assigned to conditions, and is based on measures with unknown reliability and validity. Would you give this information privileged status compared to that resulting from large, well-controlled and replicated studies, from meta-analytic studies, or from a series of rigorous and systematic case studies? The point is not to devalue personal experience, but rather to view it in context as just one source of information in a field with many sources. In sum, "To grant center stage to one's personal experience . . . can be to devalue the more informative collective experience of many other clinicians who have worked with a much larger and broader sample of clients" (Ruscio, 2007, p. 38). So, I do not find the alternative of ignoring scientific evidence appealing, ethical, or even tenable, given that practitioners are being held to ever higher standards of accountability.

EXCLUSIVELY LIMITING PRACTICE TO MANUALIZED TREATMENTS

The other alternative I see to the EBCF approach is that of ultimately restricting clinical training and practice exclusively to manualized treatments that have been deemed "empirically supported" by some controlling body, such as accreditation agencies (Baker et al., 2009), commercial insurance companies or the Centers for Medicare and Medicaid Services. The argument is that only treatment packages that have been rigorously tested in a sufficient number of randomized clinical trials and found to be efficacious should be taught, covered by insurance plans or deemed acceptable as part of competent practice.

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If these strictures were to become reality and were interpreted straightforwardly, then the case example of the anxious man given above would arguably be at variance with acceptable clinical practice and be considered incompetent practice, despite evidence of a successful outcome. I find this constraint too restrictive as a clinician since it would limit my discretion in choosing how best to understand patients in light of the unique constellation of problems and life circumstances they bring to therapy. As Persons writes in her commentary, empirically supported treatments (EST) have not been developed for the full range and combination of problems that bring individuals to therapy.

Further, most of the empirically supported body of research hinges on selection of patients based on diagnosis, and there is considerable reason to question the reliability and validity of many diagnostic categories (Kutchins & Kirk, 1997; Williams et al., 1992), including the most recently promulgated DSM-5 (Regier et al., 2013). Results from reliability field trials of the DSM-5 found that kappa coefficients for nine of 23 diagnoses investigated (39%) were in a range conventionally interpreted as “poor” (Fleiss, 1986), including major depressive disorder (kappa = 0.28) and generalized anxiety disorder (kappa = 0.20). Allen Frances, the architect of DSM-IV, has described these results as “deplorable” (2013). As Persons also points out, there is a persuasive body of empirical evidence indicating that we do not need to rely exclusively on RCTs as the sole basis for evidence-based clinical practice. She cites Embry and Biglan’s (2008) idea of evidence-based “kernels” or “fundamental units of behavioral influence that appear to underlie effective prevention and treatment for children, adults, and families” (p. 75). In addition, a wide variety of empirically supported psychotherapy processes (Norcross, 2011) and cross-theoretical principles of change (Castonguay, 2011; Castonguay & Beutler, 2006) have been demonstrated to be effective. So, I find the alternative of restricting practice to ESTs to be not only empirically unjustified, but also aversive in terms of limiting my freedom to exercise evidence-based treatment by drawing from the full body of applicable and relevant scientific data, not just a narrow set approved by an outside authority.

IN DEFENSE OF CLINICAL JUDGMENT

Since the EBCF approach relies more on clinical judgment than the EST alternative, I want to add a word in defense of a component of clinical judgment, which is intuition. Evidence indicates that clinical intuition plays a big role in therapists’ thinking processes and is highly valued. Caspar’s (1997) research on “what goes on in a psychotherapist’s mind” shows that clinicians engage in a great deal of intuitive as well as rational-analytic thinking. Charman (2004) found that clinicians include the word “intuitive” when describing the skills of effective psychotherapists. In my own research, expert case formulators developed higher quality case formulations than non-experts and did so using a mix of cognitive processes involving short-term, data-near, intuitive leaps as well as more systematic deductive and inductive processes (Eells, 2010; Eells, Lombart, Kendjelic, Turner, & Lucas, 2005; Eells et al., 2011). Further, it is well documented that experts in a variety of skill domains are capable of accurate, insightful and intuitive judgment (Chi, Glaser, & Farr, 1988; Ericsson, Charness, Feltovich, & Hoffman, 2006; Klein, 1998). Accounts have been written about remarkable feats performed by chess players, athletes, musicians, mathematicians, physicists, and physicians, among others. Within their area

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of expertise, these individuals quickly perceive large meaningful patterns, are faster than novices at performing the skill in question, and quickly solve problems with little error (Chi, 2006).

Yet clinical intuition has been criticized for decades. The Baker article cited above criticizes clinicians not only for relying more on clinical experience than on scientific evidence, but also for valuing intuition over scientific studies when practicing psychotherapy (a point on which I agree with Baker et al.) Clinical judgment has faced critical scrutiny since Meehl published his landmark book, *Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence*, in 1954. Since then, many studies have shown that clinical judgment is inferior to judgment based on statistical formulas (Faust, 2007). However, the predictive context of these studies is different in significant ways from the psychotherapy context. In fact, there are good reasons to believe that in some circumstances we can trust clinical intuition.

How can one resolve these two perspectives on clinical judgment and intuition? First, we need a clear definition of intuition. I prefer the definition offered by Simon (1991), who writes, “The situation has provided a cue; this cue has given the expert access to information stored in memory; and the information provides the answer. Intuition is nothing more and nothing less than recognition” (p. 155). Simon’s definition places recognition at the core of intuition, thus demystifying the term and putting it squarely in the realm of ordinary psychological processes.

Accordingly, intuition is a process not unlike that of recognizing when a friend is upset simply by looking at his or her face. You may not know exactly how you know your friend is upset; you just accept it as natural. Similarly, you may not know why a patient’s story of relationship problems fits a familiar pattern; it just does.

Kahneman and Klein (2009) suggest that two conditions must be met in order to trust intuitive judgments. First, the learning environment in which one makes judgments must be regular, predictable, and highly valid. Second, adequate opportunity to practice the skill in question must exist in order for genuine expertise to develop. Fortunately, psychotherapy meets both conditions. With regard to the first, competently delivered psychotherapy occurs in a relatively “kind” environment (Hogarth, 2001). The respective roles of the therapist and patient are well-defined. The therapist aims to provide a facilitating environment and to behave in a manner that is stable, consistent and predictable. The patient is educated about his or her role and the expectations therapy involves; collaborative agreement is sought on identifying problems, causes, and maintaining influences; and the two decide upon a course of action to address them. Further, the setting in which therapy unfolds is stable in that sessions usually have a predictable length and structure, and session tasks are usually defined. In addition, the scope of events that occur in therapy are relatively limited. Near-term feedback is provided to clinicians after every intervention and on a session-by-session basis when progress monitoring is employed. Therapists can learn to tune in to the cues patients give after interventions. Other skills performed by mental health professionals do not occur in such “kind” environments. These include predicting suicidality or violence; offering forensic opinions about criminal responsibility, competency or disability; and predicting academic or job performance. These activities involve predictions well into the future, so feedback is significantly delayed, if it comes at all.

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With regard to the second condition, psychotherapy is well suited to the acquisition of genuine expertise. Ericsson (2006) found that extensive experience is necessary to acquire expertise in a domain, as much as 10,000 hours. Further, the skills are acquired gradually and after exposure to a vast repertoire of examples within the domain in which one aspires to achieve expertise. But experience alone is not sufficient; deliberate practice is also necessary. It involves sustained levels of concentration and effort; suitable training tasks that isolate components of the skills desired; and explicit, detailed feedback and monitoring from a coach or teacher.

Psychotherapy and psychotherapy case formulation are skill domains suitable to deliberate practice. Supervision is a core component of training in psychotherapy and ordinarily includes feedback. In addition, feedback comes from patients directly and through progress monitoring. It is possible to decompose therapy and case formulation skills into specific components, and evidence suggests that doing so may facilitate learning more than a global approach to supervision (Henry, Schacht, Strupp, Butler, & Binder, 1993). Caspar et. al. (2004) demonstrated that an individualized, computer-assisted training program that provides concise and intensive feedback is well accepted by trainees and improves trainees' ability to cover relevant aspects of case formulation. Another advantage of psychotherapy in facilitating the development of expert intuition is that it provides many opportunities for learning since it is a frequent occurrence. It differs in this respect from other areas in which expertise might be sought such as in responding to natural or man-made disasters. In contrast, there are plenty of opportunities to learn the rules of the psychotherapy and case formulation environment.

Thus, the two perspectives on clinical intuition can be resolved as follows: Suspect intuitive judgments unless they occur in highly regular and valid environments, and involve temporally short-term predictions that are made by individuals who are highly practiced in those environments and who have had considerable feedback to help with signal detection.

CONCLUSION

I began this commentary by acknowledging my preference for the EBCF approach as a practicing clinician. I am not a dispassionate advocate. While I am confident that I am not alone in preferring the freedom, intellectual challenge, and the flexibility of the EBCF approach, I write of this preference with a mixed mind. Although I prefer the EBCF approach to psychotherapy, my personal preference is not particularly important; frankly, it is not what matters. What does matter is what best helps the patient. If a focus on treatment rather than the patient, as Persons frames the difference between the EST and EBCF perspectives, leads to better outcomes, then I must throw in the towel on EBCF and fall in line with the manual if I am to continue practicing psychotherapy as best I can, based on available research. I expect Persons would as well. Analogously, when surgery is needed, I expect few would choose a surgeon who operates according to his or her personal preferences and experiences alone, rather than what the best evidence suggests should be done. Surgery is sometimes used as an example of a discipline and practice where clear, evidence-based procedures would be indisputably preferred by any rational person. However, experience from surgeons suggests that the clinical picture for a surgeon can often be as difficult to predict as that encountered in psychotherapy. Judgment

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comes into play just as it does in psychotherapy. Gawande (2011) described his experience as an endocrine surgeon and shows that even with a seemingly simple operation (for a surgeon) as an appendectomy with laparoscopy, the procedure often does not go according to plan:

Even before you start, you need to make some judgments. Unusual anatomy, severe obesity, or internal scars from previous abdominal surgery could make it difficult to get the camera in safely; you don't want to poke it into a loop of intestine. You have to decide which camera-insertion method to use—there's a range of options—or whether to abandon the high-tech approach and do the operation the traditional way, with a wide-open incision that lets you see everything directly. If you do get your camera and instruments inside, you may have trouble grasping the appendix. Infection turns it into a fat, bloody, inflamed worm that sticks to everything around it—bowel, blood vessels, an ovary, the pelvic sidewall—and to free it you have to choose from a variety of tools and techniques. You can use a long cotton-tipped instrument to try to push the surrounding attachments away. You can use electrocautery, a hook, a pair of scissors, a sharp-tip dissector, a blunt-tip dissector, a right-angle dissector, or a suction device. You can adjust the operating table so that the patient's head is down and his feet are up, allowing gravity to pull the viscera in the right direction. Or you can just grab whatever part of the appendix is visible and pull really hard (p. 44).

Similarly, as an investigator on a randomized clinical trial currently underway, I see how often therapists have had to deviate from the manualized treatment in order to manage emerging patient needs. We have had to manage suicide risks, patients who only reluctantly comply with the scheduled session topic, patients who face adventitious events that required a change in the protocol, and therapeutic alliance ruptures—all situations that required clinical judgment beyond what is called for in the manual. Of note is one patient who experienced a sudden gain. Having read the literature about these occurrences in RCTs I was eager to learn more. It turned out that the patient was ambivalent about his marriage. He wanted to leave his wife, but did not want to be the one who ended it. His dilemma was resolved when his wife announced she was leaving him. He almost immediately improved, although one would be hard-pressed to attribute the cause of his improvement to the treatment he received. More light will be shed on similar phenomena if a recommendation by Dattilio, Edwards, and Fishman (2010) is followed. This proposal calls for more studies comparing outcomes of individual patients in RCTs with processes revealed in systematic case studies of their courses of therapy. If, through such work, it turns out that the examples given above are more typical than atypical, it is possible that a false dichotomy exists between the EST and EBCF approaches when considering psychotherapy as it is actually practiced. Nevertheless, although I understand that "following the manual" does not completely constrain the clinician from basic principles of sound patient management and practice, these elements of clinical practice remain at the periphery of the EST approach, while residing at the center of the EBCF approach.

I am confident that these different approaches to evidence in psychotherapy will be resolved eventually. In the meantime, I have argued above that an EBCF approach to psychotherapy stands as an empirically defensible alternative to constraining practice and training only to ESTs, and is clearly superior to an approach that pays little serious attention to empirical evidence. As important, a mixed-methods research agenda that tests the case formulation hypothesis can play an important part in this debate.

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REFERENCES

- Baker, T. B., McFall, R. M., & Shoham, V. (2009). Current status and future prospects of clinical psychology: Toward a scientifically principled approach to mental and behavioral health care. *Psychological Science in the Public Interest*, 9, 67-103.
- Caspar, F. (1997). What goes on in a psychotherapist's mind? *Psychotherapy Research*, 7(2), 105-125.
- Caspar, F., Berger, T., & Haulte, I. (2004). The right view of your patient: A computer-assisted, individualized module for psychotherapy Training. *Psychotherapy: Theory, Research, Practice, Training*, 41(2), 125-135.
- Castonguay, L. G. (2011). Psychotherapy, psychopathology, research and practice: Pathways of connections and integration. *Psychotherapy Research*, 21(2), 125-140. doi: 10.1080/10503307.2011.563250
- Castonguay, L. G., & Beutler, L. E. (Eds.). (2006). *Principles of therapeutic change that work*. New York: Oxford University Press.
- Charman, D. P. (2004). Effective psychotherapy and effective psychotherapists. In D. P. Charman (Ed.), *Core processes in brief psychodynamic psychotherapy* (pp. 3-22). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Chi, M. T. H. (2006). Two approaches to the study of experts' characteristics. In K. A. Ericsson, N. Charness, P. J. Feltovich & R. R. Hoffman (Eds.), *The Cambridge handbook of expertise and expert performance*. (pp. 21-30). New York: Cambridge University Press.
- Chi, M. T. H., Glaser, R., & Farr, M. J. (Eds.). (1988). *The nature of expertise*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Dattilio, F. M., Edwards, D., & Fishman, D. B. (2010). Case studies within a mixed methods paradigm: Towards a resolution of the alienation between research and practitioner in psychotherapy research. *Psychotherapy: Theory, Research, Practice, Training*, 47, 427-441.
- Eells, T. D. (2010). The unfolding case formulation: The interplay of description and inference. *Pragmatic Case Studies in Psychotherapy*, 6(4), Article 2, 225-254. Available: http://hdl.rutgers.edu/1782.1/pcsp_journal
- Eells, T.D. (2013). The case formulation approach to psychotherapy revisited. *Pragmatic Case Studies in Psychotherapy*, 9 (4), Article 3, 426-447. Available: http://hdl.rutgers.edu/1782.1/pcsp_journal
- Eells, T. D., Lombart, K. G., Kendjelic, E. M., Turner, L. C., & Lucas, C. (2005). The quality of psychotherapy case formulations: A comparison of expert, experienced, and novice cognitive-behavioral and psychodynamic therapists. *Journal of Consulting & Clinical Psychology*, 73, 579-589.
- Eells, T. D., Lombart, K. G., Salsman, N., Kendjelic, E. M., Schneiderman, C. T., & Lucas, C. (2011). Expert reasoning in psychotherapy case formulation. *Psychotherapy Research*, 21, 385-399.
- Embry, D. D., & Biglan, A. (2008). Evidence-based kernels: fundamental units of behavioral influence. *Clinical Child Family Psychology Review*, 11, 75-113.
- Ericsson, K. A. (2006). The influence of experience and deliberate practice on the development of superior expert performance. In K. A. Ericsson, N. Charness, P. J. Feltovich & R. R.

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Pragmatic Case Studies in Psychotherapy, <http://pcsp.libraries.rutgers.edu>
Volume 9, Module 4, Article 5, pp. 457-467, 12-12-13 [copyright by author]

- Hoffman (Eds.), *The Cambridge handbook of expertise and expert performance*. (pp. 683-703). New York: Cambridge University Press.
- Ericsson, K. A., Charness, N., Feltovich, P. J., & Hoffman, R. R. (Eds.). (2006). *The Cambridge handbook of expertise and expert performance*. New York: Cambridge University Press.
- Faust, D. (2007). Decision research can increase the accuracy of clinical judgment and thereby improve patient care. In S. O. Lilienfeld & W. T. O'Donohue (Eds.), *The great ideas of clinical science: 17 principles that every mental health professional should understand*. (pp. 49-76). New York: Routledge/Taylor & Francis Group.
- Fleiss, J. L. (1986). *The design and analysis of clinical experiments*. New York: John Wiley and Sons.
- Frances, A. (2013). Newsflash From APA Meeting: DSM 5 Has Flunked Its Reliability Tests. Retrieved from <http://www.psychologytoday.com/blog/dsm5-in-distress/201205/newsflash-apa-meeting-dsm-5-has-flunked-its-reliability-tests>
- Gawande, A. (2011, October 3, 2011). Coaching a Surgeon: What Makes Top Performers Better? *The New Yorker*.
- Henry, W. P., Schacht, T. E., Strupp, H. H., Butler, S. F., & Binder, J. L. (1993). Effects of training in time-limited dynamic psychotherapy: Mediators of therapists' responses to training. *Journal of Consulting and Clinical Psychology*, 61(3), 441-447.
- Hogarth, R. M. (2001). *Educating intuition*. Chicago: University of Chicago Press.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.
- Kahneman, D., & Klein, G. (2009). Conditions for intuitive expertise: A failure to disagree. *American Psychologist*, 64(6), 515-526.
- Klein, G. (1998). *Sources of power: How people make decisions*. Cambridge, Massachusetts: MIT Press.
- Kutchins, H., & Kirk, S. A. (1997). *Making us crazy: DSM: The psychiatric bible and the creation of mental disorders*. New York: The Free Press.
- Meehl, P.E. (1954). *Clinical versus statistical prediction: A theoretical analysis and a review of the evidence*, University of Minnesota.
- Merikangas, K. R., Akiskal, H. S., Angst, J., Greenberg, P. E., Hirschfeld, R. M. A., Petukhova, M., & Kessler, R. C. (2007). Lifetime and 12-month prevalence of bipolar spectrum disorder in the national comorbidity survey replication. *Archives of General Psychiatry*, 64(5), 543-552. doi: 10.1001/archpsyc.64.5.543
- Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science*, 3(5), 400-424.
- Norcross, J. C. (Ed.). (2011). *Psychotherapy relationships that work: Evidence-based responsiveness* (2nd ed.). New York: Oxford University Press.
- Persons, J.B. (2013). Who needs a case formulation and why: Clinicians use the case formulation to guide decision-making. *Pragmatic Case Studies in Psychotherapy*, 9 (4), Article 4, 448-456. Available: http://hdl.rutgers.edu/1782.1/pcsp_journal
- Regier, D. A., Narrow, W. E., Clarke, D. E., Kraemer, H. C., Kuramoto, S. J., Kuhl, E. A., & Kupfer, D. J. (2013). DSM-5 Field Trials in the United States and Canada, Part II: Test-Retest Reliability of Selected Categorical Diagnoses. *The American Journal of Psychiatry*, 170(1), 59-70.
- Rosenhan, D. L. (1973). On being sane in insane places. *Science*, 179, 250-258.

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- Ross, M., & Sicoly, F. (1979). Egocentric biases in availability and attribution. *Journal of Personality & Social Psychology*, 37(3), 322-336.
- Ruscio, J. (2007). The clinician as subject: Practitioners are prone to the same judgment errors as everyone else. In S. O. Lilienfeld & W. T. O'Donohue (Eds.), *The great ideas of clinical science: 17 principles that every mental health professional should understand*. (pp. 29-47). New York: Routledge/Taylor & Francis Group.
- Simon, H. A. (1991). What is an "explanation" of behavior? *Psychological Science*, 3, 150-161.
- Williams, J. B. W., Gibbon, M., First, M. B., Spitzer, R. L., Davies, M., Borus, J., . . . Wittchen, H. U. (1992). The Structured Clinical Interview for DSM-III-R (SCID): II. Multisite test-retest reliability. *Archives of General Psychiatry*, 49, 630-636.