# **SUPPLEMENT TO**

### CHAPTER 7, V1<sup>1</sup>:

# **EVALUATION, CRITICISMS AND REBUTTALS**

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## **CHAPTER 13**

Chapter 7 evaluates the core and corollary principles that constitute the Bio↔Psychology Network explanatory system from the perspective of psychological science. It is focused on providing a better way to explain psychology and behavior; one that is cross-validated, triangulated, using neuroscience. It does not directly address clinical psychology because Chapter 7 occurs prior to Section 2 that addresses and advances psychotherapy integration via theoretical unification. Hence, a reader's final opinion about the Bio↔Psychology Network explanatory system is contingent upon their view of the contributions that this theory makes to psychotherapy integration. It is quite possible that a reader will have a much better view of this theory after reading Section 2 than before reading it. Consequently, I have written Chapter 13 to provide additional appraisal of the Bio↔Psychology Network explanatory system. I wrote this chapter after the book was published.

### **READY TO USE?**

Kazdin (2009, p. 276) made the following comment that I reproduced in Chapter 7.

A model that explains is a superb beginning point. It is like a beautiful race horse right before the start of a race. Excitement and hope are present, and there are visions of bouquets and a trophy all crowded into a photo of the winner's circle. However, finishing the race,

<sup>&</sup>lt;sup>1</sup> V1 stands for Version 1 which implies that subsequent chapter updates will become available.

much less placing or winning, is another matter. A model all ready to go is roughly in the same place – we need to run the race and see the data (p. 325).

Tryon (2014, p. 325) commented that "Kazdin's reference to the beginning of a horse race equates the proposed Bio↔Psychology Network explanatory system with other new theories that await subsequent testing". I now provide a more nuanced reaction that is based on distinguishing explanation from implication.

### **Explanation**

Here I consider explanation in terms of mechanisms. Hypothesized mechanisms such as Chomsky's (1971, 1986) Language Acquisition Device (LAD) and Wolpe's (1958) reciprocal inhibition once provided promising explanations but subsequent research reviewed by Tryon (2014) in Chapter 7 has falsified them. The difference between these putative mechanisms and the core and corollary principles proposed by Tryon (2014) is that the latter are based on well documented psychological phenomena and firm neuroscience facts that need no further empirical support. I am referring to well replicated psychological phenomena such as priming which, by the way can explain the anchoring heuristic (See Tryon, 2014, p. 165). Subliminal activation propagates through the network. This process biologically reinforces the path taken through the network. Repeated subliminal activations further reinforce this pathway. Activations taken by the presentation of supraliminal stimulation preferentially take this processing pathway through the network. No further evidence is required.

The current ability of the Bio↔Psychology Network explanatory system to explain is superior to all other explanatory systems that psychologists, and especially clinical psychologists, currently have at their disposal. Hence, this explanatory system is ready to use today.

### **Implication**

Theories carry implications as well as provide explanations. Kazdin's call for additional research is correct when it addresses implications of the Bio↔Psychology Network explanatory system. For example, this theory implies that cognition, affect, and behavior change simultaneously, in parallel, rather than sequentially. Chapter 7 presents seven novel predictions that are open to subsequent research. Empirical results may drive revisions of the proposed theory

but will unlikely falsify all of it because so much of it is grounded in well replicated accepted neuroscience facts.

The requirement that all implications must be exhaustively studied before using a theory to explain psychological phenomena sets a radically high and unprecedented evidential bar. Even the best theories in physics, chemistry, and biology do not meet this standard. For example, research on evolutionary theory is still being conducted. It is only the creationists who characterize Darwin's theory as not ready for teaching to school children because research is not yet complete and therefore evolution remains just a theory.

### **CLINICAL PRACTICE**

Some readers may conclude that the recommended Applied Psychological Science (APS) clinical orientation based on the proposed Bio↔Psychology Network explanatory system in not original because it amounts to nothing more than advocating for the eclectic practice of psychotherapy. This view is partly right but wrong in an important way. Eclectic practice has been disparaged for at least two good reasons. First, the underlying theories associated with behavioral and psychodynamic practice are contradictory. Psychodynamic theory requires that clinicians look for underlying unconscious causes that may not become apparent for many sessions. Behavior theory directs clinicians to seek ways to directly modify presenting complaints by modifying cognition and behavior. Eclectic practitioners have no good way to make and defend these professional decisions except on the basis of outcome statistics. Practicing from a collection of contradictory orientations suggests that a clinical mistake will result at some point. Second, what does one do when treatment does not go as planned? Does one continue with the current choice of theoretical orientation or does one abandon it for a contradictory position? If so, how does one explain this contradiction to their patients? The absence of an overarching rational for what one does clinically is problematic and consequently eclectic practice is discouraged. However, clinicians are attracted to what they perceive to be the positive features that various theoretical orientations offer. The identified need is to find a way to effectively bridge the big five clinical orientations which are: a) behavioral (Applied Behavior Analysis), cognitive, cognitivebehavioral, psychodynamic (including emotion focused therapy), and pharmacologic. The proposed Bio Psychology Network explanatory system and its Applied Psychological Science

clinical orientation does just that. This is the goal that Goldfried (1980) and Stricker (2010) desired but thought to be impossible.

The proposed APS clinical orientation draws upon replicated findings from psychological science and neuroscience that provide each of the big five clinical orientations with their conceptual "must haves". Its core and corollary empirically supported network principles are used to guide customized cognitive interventions for cognitive problems, behavioral interventions for behavioral problems, and emotion-focused interventions for emotional problems. That all patients present with a combination of cognitive, emotional, and behavioral issues means that the clinician will need to formulate, with the client's assistance, a therapeutic plan as part of establishing a working alliance. This broad-based approach draws upon all empirically supported treatments to:

a) reduce/eliminate symptoms, which I now prefer to call indicators, and b) to increase psychological mindedness in an effort to enhance emotional regulation and behavior change. This degree of theoretically justified psychotherapy integration makes a novel and long awaited contribution.

#### REFERENCES<sup>2</sup>

Tryon, W. W. (2014). Cognitive neuroscience and psychotherapy: Network Principles for a Unified Theory. New York: Academic Press.

<sup>&</sup>lt;sup>2</sup> References not included in this list are in the reference section of the Tryon (2014).