

## Explanation as Psychological Intervention

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In Chapter 1 of my book, *Cognitive Neuroscience and Psychotherapy: Network Principles for a Unified Theory*<sup>1</sup> I address the following question: **how will explanatory principles help me to be a better clinician**<sup>2</sup>? Here I answer this question in a more expanded way. Explanation can be the core component of effective brief or long-term therapy. **Explanation can reorient your patient and modify their expectations of themselves and others** in ways that facilitate modifying their own behavior and/or adapting to personality traits, physical, and/or social situations that cannot be modified. Explanation can facilitate **acceptance**, which is a primary objective of Acceptance and Commitment Therapy.

More generally, explanation can alter one's **perspective** and enhance their **understanding** in ways that can produce crucial psychological change that constitutes a successful therapeutic outcome in and of itself. Many people seek psychotherapy for this reason alone. Improving the client's understanding of themselves, **insight**, has long been a core therapeutic goal of many psychotherapies. People who seek psychotherapy are often confused and upset by their thoughts, feelings, and/or actions and/or those of significant others. They want to know **why** these things are happening as well as **what** they can do about them. Providing the client with an alternative understanding of such matters typically constitutes the first phase of therapy prior to implementing methods designed to change their thoughts, feelings, and/or behaviors. For some schools of therapy insight is the main or exclusive goal of therapy. Sometimes modifying the client's explanatory narrative is all that is required as the case presented below illustrates. My book provides reasons for basing corrective explanations on core and corollary principles.

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<sup>1</sup> Copies of this book are available at <http://store.elsevier.com/9780124200715>.

<sup>2</sup> In my book I asked this same question as "**How can the Bio↔Psychology Network Theory help me to become a better therapist?**" (Tryon, 2014, p. 17, bold font in the original)

The case formulation that I presented in Chapter 1 (p. 18) of my book illustrates how explaining to a father that his daughter's disruptive behavior was due to the fact that she did not have words for her feelings (alexithymia), probably caused by a dysfunctional mirror neuron system<sup>3</sup>, provided him with an alternative explanation of her behavior that enabled him to become more supportive and help her receive proper treatment in the form of dialectical behavior therapy. His initial explanation of her disruptive behavior was that she was a rebellious teenager who needed more effective discipline than he or his wife could provide. He was looking to me for more effective methods of punishment. The explanation I provided him with altered his perspective, modified his expectations of his daughter, revised his view of what she required by way of treatment, and changed how he behaved towards her. This major modification in the father's perspective, based on the alternative perspective that I provided, constitutes a positive psychological intervention in and of itself.

Several studies have identified mirror neuron system dysfunction in children with autism spectrum disorders including Asperger's syndrome (Dapretto et al., 2006; Hadjikhani et al., 2005; Martineau et al., 2008; Nishitani et al., 2004; Oberman et al., 2005; Theoret et al., 2005; Williams et al., 2006; Woods et al., 1999). This mirror neuron dysfunction explains their inability to empathize, their social awkwardness, their reluctance to make eye contact, and consequently their failure to develop friendships. Consider how providing a mirror-neuron-based explanation might have made a big difference in the case of **Elliot Rodger** who on Friday May 23, 2014 stabbed several people to death and shot others in Isla Vista California as "retribution" for perceived insults and rejection. Elliot was a reasonably good looking wealthy young man who drove a nice car (BMW), had access to Hollywood parties, but had no friends of either gender. Elliot reasonably expected that his, money, car, party access, and appearance should have enabled him to have at least one girl friend but instead he had none and, in his view, no prospects of ever having one. Elliot explained his social rejection as the result of other people being mean and nasty. Elliot used this explanation to justify retribution by random murder. Elliot used his explanation that all people are mean and nasty to justify killing anyone that he encountered that Friday evening. Then, Elliot

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<sup>3</sup> I (Tryon, 2014, p. 445) discussed the connection between alexithymia and the mirror neuron system.

used his hopeless explanation to justify killing himself. In short, Elliot's explanation provided the psychological basis, justification, for his homicidal and suicidal actions<sup>4</sup>.

All of this might have been different had a therapist explained to Elliot that his social isolation was the result of his Asperger's; likely caused by a compromised mirror neuron system. He might have seen that the problem was with himself much more than with other people. He might have been referred to receive the more focused treatment developed for people with Asperger's to help them manage their social relationships. He might have been directed to find male and female friends who also had Asperger's by joining an Asperger social support group. In short, Elliot might have found a way to enjoy life rather than end it in a rage that killed others and himself if he had a different explanation for his troubles.

There are two main points here. **First**, this case shows just how important explanation is to people. **Second**, altering Elliot's explanation, his personal narrative, might have made the crucial difference between a happy life, his tragic death, and the heartbreaking death of others. Adoption of a different explanation might have been sufficient to open new opportunities for Elliot.

The case example that I provided in Chapter 10 (Tryon, 2014, p. 454) illustrated how Jeffrey Schwartz helped his OCD patients avoid self-recrimination and accept exposure treatment by changing how they explained their disorder. His patients initially viewed their OCD symptoms as the result of personal failure due to a lack of self-control. Schwartz provided them with a brain explanation that replaced self-blame with scientific understanding. It also helped them to understand and accept the exposure and response prevention therapy that reduced their symptoms. Revising their personal explanatory narrative to include cognitive neuroscience information was therapeutic in and of itself. This is not an endorsement of the medical disease model of psychopathology. While disease is now understood in physical terms, neuroscience includes normal as well as abnormal psychology and behavior. In my book I show how it is possible to think about psychology and behavior in physical rather than mental terms without endorsing the disease model of psychopathology.

Neuroticism entails a propensity to experience negative affect and anxiety (Barlow, Ellard, Sauer-Zavala, Bullis, & Carl, 2014; Barlow, Sauer-Zavala, Carl, Bullis, & Ellard, 2014). People who seek treatment for anxiety disorders tend to be high in neuroticism. Explaining how

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<sup>4</sup> Everyone justifies their thoughts, feelings, and behaviors by the causal explanations that constitute the core of their personal narrative.

neuroticism leads to clinical symptoms can facilitate **acceptance** of those experiences in patients who are high in neuroticism. Such acceptance can expedite exposure treatment designed to reduce anxiety. The connectionist neural network simulations by Read and Miller (2002) and Read et al. (2010) provide crucial causal mechanism information regarding neuroticism. They demonstrate that neuroticism is the result of an overactive **Behavioral Inhibition System** (Depue, 1996; Depue & Collins, 1999). The main point here is that revising the patient's explanation of their condition is now recognized to be an important first step in the effective treatment of anxiety disorders.

Temperament is the heritable precursor to personality. Temperaments can be easy, difficult, or slow to warm up. Parents sometimes seek treatment for their child if their child is fearful of nursery school or kindergarten. Their explanatory narratives may include concerns about inadequate parenting or having an abnormal, defective, child when actually their child's behavior can be the understandable normal expression of a slow to warm up or difficult temperament that is not subject to radical change. Explaining the child's behavior in terms of temperament both normalizes it and prepares the parents to expect that similar issues will arise at all developmental stages. Parental acceptance and support are in order here. Replacing the parent's explanatory narrative with one based on a natural science understanding of personality can be therapeutic in and of itself. The effects of such a narrative alternation can be among the most positive and long-lasting effects that psychotherapy provides.

Introverts are frequently misunderstood by extraverts. Marital problems can arise when extraverts marry introverts. Extraverts often do not understand the need that introverts have for personal time. Introverts often do not understand why extraverts want to socialize so much. The personal explanatory narratives of both introverts and extraverts concerning each other may entail unfounded attributions including a lack of caring or love. Replacing such an explanatory narrative with one based on a natural science understanding of personality can be therapeutic in and of itself.

The personal narratives that people develop mainly concern **explanations** for their life events and those of significant others. Their personal explanatory narrative provides them with **perspective** and **understanding**. Modifying people's explanatory narrative in therapeutic ways has long been a major goal of psychotherapy. People who seek psychotherapy from psychologists presume that psychological science can inform their personal explanatory narrative in therapeutic ways. It is therefore paramount that psychologists can constructively contribute to this therapeutic goal. This means that clinical psychologists should be able to persuasively explain psychology and

behavior in natural science terms. This therapeutic goal justifies the content and organization of my graduate Cognition and Affect course and the textbook that I wrote for this course.

These examples should be sufficient to establish two overall main points. **First**, people's personal explanatory narrative provides the psychological basis, justification, for their lives including their thoughts, feelings, and behaviors. **Second**, altering a person's explanatory narrative can change their life in a major way and therefore constitutes a positive psychological intervention in and of itself. In my book I provide a principled explanation of psychology and behavior based on cognitive neuroscience that can be used to modify personal narratives. This approach presents psychology as a unified mature science where principled explanations replace personal interpretations.

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