

# **Nested Hierarchy for Therapy Integration: Integrating the Integrative**

*Valery Krupnik*

## **Abstract:**

Several well-established psychotherapies have seen a proliferation of their derivatives. Among notable examples are truncated forms of psychoanalysis, such as psychoanalytic psychotherapy and brief psychodynamic therapy; a variety of cognitive behavioral therapies (CBT) including CBT-I (CBT for insomnia), CBT-D (CBT for depression), and CPT (a trauma-focused CBT). Despite its relatively young age EMDR has also produced multiple modifications like ego states EMDR, EMDR for addiction, and EMDR for somatic conditions. The majority of modifications are developed by integrating new interventions with the original protocols. However, there is no commonly accepted ad hoc methodology or standard for such integration. This article suggests a “nested hierarchy” as a methodology for psychotherapy integration, exploring its ramifications for practice and research.

**Keywords:** nested hierarchy, psychotherapy integration, EMDR, TDD, evolution.

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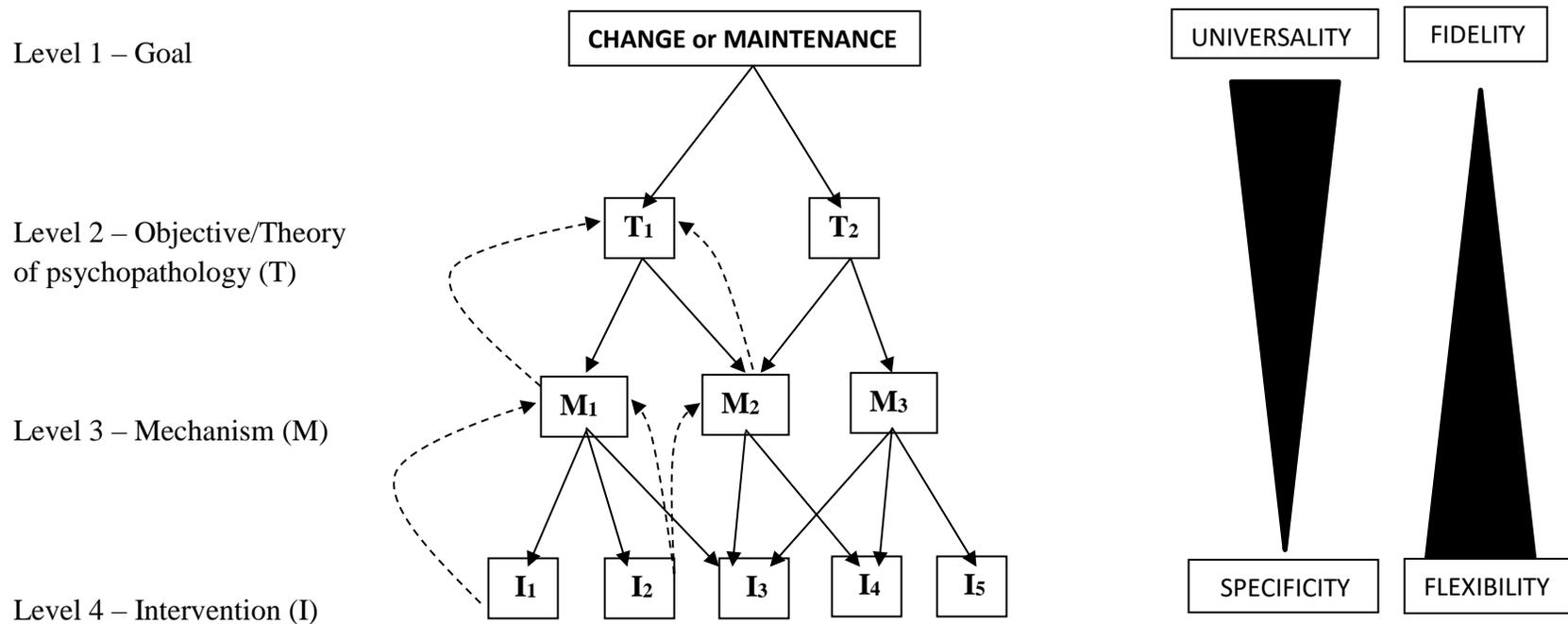
Integrative therapies have become a mainstay in contemporary practice (Norcross, Karpiak, & Lister, 2005), indicating the presence of significant factors driving psychotherapy integration. Some of them are extrinsic, such as market forces of competition between different therapies, whereby integration is another way of creating a new marketable product. Other factors are intrinsic and follow the natural trends in psychotherapy evolution (Norcross, 2005). The latter include the search to increase the efficacy of existing therapies, as well as their applicability to wider and more diverse client populations and therapeutic settings. Whether therapy integration often or ever results in increased efficacy is an open question that, to our knowledge, no study has conclusively answered.

However, doubts have been raised (Schottenbauer, Glass, & Arnkoff, 2005). That may not be surprising considering that therapy integration comes with both presumed advantages and real challenges. Integrative treatment combines more therapeutic tools, potentially leading to a greater versatility, but that comes with the challenge of modifying the original therapies that have been refined in practice and may have developed to their maximal potential. Therefore, in designing an integrative therapy it is imperative to understand the reason for such undertaking and to choose the right strategy for the integration. To date, however, there is no commonly accepted methodology for psychotherapy integration, leaving it mostly to personal preference and experimentation.

There are four commonly identified strategies for psychotherapy integration: *technical eclecticism*, *common factors integration*, *principle-based assimilative integration*, and *theoretical integration* (Norcross, 2005). In short, *technical eclecticism* refers to a systematic combining of techniques from different therapies without concern for the therapies' theoretical compatibility. *Common factors integration* builds a treatment based on a theory of universal principles of change common to different brands of therapy. For example, an empathic disposition and collaborative approach are common to most therapies and have significant effects on outcomes (Laska, Gurman, & Wampold, 2014). A system of interventions built around such common factors is then expected to result in an effective therapy beyond the list of original existing brands. *Principle-based assimilative integration* proceeds from a certain theoretical orientation, assimilating techniques from other therapies in line with that theoretical frame. *Theoretical integration* refers to integration of different theoretical traditions into a unified theory of psychotherapy. There have also been proposals for trans-theoretical integration meant to transcend individual integrative models. For example, *systematic treatment selection* approach (Beutler & Clarkin, 2014) proposes to construct a treatment by matching interventions to the contextual parameters of a therapeutic encounter based on empirical evidence for the effectiveness of such match. Those parameters include characteristics of the patient, the therapeutic relationship, and the process of change. In *multitheoretical therapy*, Brooks-Harris (2008) suggests approaching therapy integration from multiple theoretical levels including psychobiological, experiential, behavioral, cognitive, psychodynamic, systemic, and multicultural. Integration of these levels in application to a particular therapeutic encounter helps identify the most salient targets for intervention and instructs the therapist's choice of interventions. In yet another multi-theoretical integrative model, the primary focus is on integrating the client's self through a therapeutic process that also relies on a multi-level theoretical understanding of the client. Such

understanding instructs the development of a therapeutic relationship to facilitate that integration (Erskine & Moursund, 2011; Erskine & Trautmann, 1996).

Regardless of the strategy, therapy integration is rife with contradictions. A new integrative treatment combines interventions from already internally consistent therapeutic systems. These interventions are bound to impose mutual constraints that may differ from the ones placed on them in their original therapies. For example, in eye movement desensitization and reprocessing therapy (EMDR), elements of mindfulness are embedded within reprocessing of target memories in Phases 3-6 (Shapiro, 2001), which represents a truncated form of the traditional practice of mindfulness (Kabat-Zinn, 1990). Likewise, the use of in vitro exposure to traumatic experience in cognitive processing therapy (Resick & Schnicke, 1993) is used in a more limited way compared to prolonged exposure therapy (Foa & Rothbaum, 2001). This suggests an approach to therapy integration, namely *nested hierarchy* (NH), designed to resolve such contradictions, referred to herein to as 'dialectics,' and thus capture their potential for resolution. The NH strategy encompasses all theoretical approaches, from theories of psychopathology to intervention techniques. This approach also considers that all therapies are integrative to a certain degree, which explains the subheading "integrating the integrative." NH seeks to bind the interventions used in a therapy in a hierarchical nest, guided and constrained by the theories supporting those interventions. The most general theory sits at the top of the hierarchy, with subordinate theories becoming more specific as one moves down the hierarchy (Figure 1).



**Figure 1:** Nested hierarchy of psychotherapy interventions

Key = *T* – theory of psychopathology

*M* – mechanism of change

*I* – intervention

Downward arrows indicate the hierarchy of causation; upward arrows indicate feedback validation.

Dark triangles indicate the inverse relationships of universality vs. specificity and flexibility vs. treatment fidelity relative to the place in the hierarchy.

This approach postulates that NH (a) accommodates and reconciles other approaches to therapy integration, (b) provides a framework for creating new integrative treatments, and (c) allows for an integration process specific to a given therapeutic encounter. In addition, an approach to psychotherapy research will be described that follows from NH principles, and present a clinical case that illustrates NH integration in practice. EMDR has been chosen to illustrate the application of nested hierarchy. While acknowledging the arbitrariness of such choice, since many other therapies might serve just as well, EMDR provides an excellent example of the NH approach for the purposes of this article.

From its inception, EMDR was created as an integrative treatment initially developed for trauma-related disorders (Shapiro, 1989). Within a relatively short time EMDR has seen an explosion of modifications and derivative therapies. To name a few, ego state EMDR integrates ego states therapy rooted in psychodynamic and attachment theories into EMDR (Forgash & Knipe, 2008; Paulsen, 2008). Spiritual/mindful resonance EMDR integrates traditional spiritual healing with EMDR (Siegel, 2013). DeTUR is an eclectic model combining EMDR interventions with cognitive-behavioral, solution-focused, emotion freedom, and hypnosis techniques, among others (Popky, 2005). TDD (treating depression downhill)-EMDR integrates EMDR interventions into an evolutionary-based therapy for depression (Krupnik, 2015a, b).

### **'Horizontal' Dialectics**

The notion of 'horizontal' dialectics refers to conflicting constraints that arise at the level of methodology and concern the question of *how* interventions are chosen and applied. We distinguish them from 'vertical' dialectics, which refer to conflicting constraints arising between theoretical levels (Figure 1) and concern the question of *what* interventions are chosen.

### ***Fidelity vs. Flexibility***

Treatment fidelity has been emphasized as a necessity for clinical research and as an important contributor to therapy's effectiveness, as reviewed by Prowse & Nagel (2015). For treatment fidelity in EMDR in particular, see Maxfield, & Hyer (2002). Fidelity is commonly understood as implementation of an intervention according to the established protocol. However, once an intervention is adopted into a different context, the rules are, by necessity, bent to accommodate the new context. In EMDR, for example, cognitive restructuring is practiced very differently from cognitive behavioral therapy (CBT). While the

general impetus for changing beliefs about self toward more adaptive and reality-based ones is shared with CBT, the way cognitive restructuring is understood and implemented in EMDR is different (Shapiro, 2001). Cognitive intervention in EMDR then becomes a standard to follow within EMDR. A derivative therapy, TDD-EMDR (Krupnik, 2015a), in turn, uses an acceptance-focused cognitive intervention, which is different from EMDR proper.

It has been shown that therapists routinely deviate from the established prototype of their brand of therapy, 'borrowing' elements from cognate treatments, and that the shared elements can be most predictive of therapeutic outcome, as reviewed by Ablon & Jones, (2002). It is possible that finding the right balance between following the prototype and therapeutic flexibility may help maximize the therapy's effectiveness. However, how to strike such balance remains a matter of further research. In addition, the therapeutic relationship and, by extension, the therapist's personality may also interact with the brand of therapy practiced. Such interactions may also determine the optimal degree of following/deviating from the prototype. Consequently, studying a sample of psychoanalyses, Ablon and Jones (2005) demonstrated that they are better described as dyad-unique processes of change than a standard procedure of psychoanalysis.

### ***Specificity vs. Universality***

In psychotherapy, this dialectic has historically been skewed toward universality. Initially, psycho-social interventions were not designed for specific disorders but rather targeted symptoms or psychological problems. For example, psychoanalysis was originally designed to treat neuroses (Freud, 1966), while behavioral therapies targeted maladaptive information processing and resulting behaviors (Franks & Wilson, 1974). Mental disorders, however, are commonly classified as symptom constellations (*Diagnostic and Statistical Manual of Mental Disorder*, 5th ed.; *DSM-5*; American Psychiatric Association, 2013). Hence, by design psychotherapies were not specific to mental disorders. Moreover, the general trend among contemporary therapies has been toward universality rather than specificity. CBT, for example, was initially developed for depressive disorders but has since been used for a number of mental and psycho-somatic conditions. Its low specificity (and high universality) has been highlighted in several reviews (Butler, Chapman, Forman, & Beck, 2006; Haby, Donnelly, Corry, & Vos, 2006; Hollon, Thase, & Markowitz, 2002; Parker & Fletcher, 2007; Shedler, 2010). Likewise, EMDR was initially developed for trauma-related disorders (Shapiro, 1989, 2001), but has been extended to a variety of afflictions including affective, personality, addiction, eating disorders, and migraines

(Marcus, 2008; Miller, 2010; Mosquera, Leeds, & Gonzalez, 2014; Shapiro, 2009). More recently, a trans-diagnostic integrative therapy has been developed to target all categories of affective and mood disorders, which they approach not from the categorical but dimensional point of view as a “unified negative affect syndrome” (Barlow, Allen, & Choate, 2004).

Universality of a tool may become a liability against its effectiveness. Lack of disorder-treatment specificity has been suggested as one of the factors limiting the success in treating depression, and a new “choose horses for courses” paradigm has been advocated (Parker & Fletcher, 2007; Parker, Roy, & Eysers, 2003; Parker, Malhi, Crawford, & Thase, 2005). The authors suggest choosing an approach specific to the nature of a depressive disorder, differentiating between psychotic, melancholic, secondary depression, and dysthymia. In an attempt to increase treatment-condition specificity, a new self-system therapy for depression varies its approaches depending on the patient’s level of anxiety symptoms (Strauman et al., 2013). Similarly, EMDR has been deemed a trauma-focused, evidence-based therapy (Bisson, Roberts, Andrew, Cooper, & Lewis, 2013). However, its status regarding other than trauma conditions, depression in particular, is yet to be established.

Process-oriented exploration of specificity in therapy comes mostly from the psychoanalytic tradition, where it is believed that specificity of the dyadic relationship, that is, the right match between closely timed subjective experiences of analyst and the patient, may serve as a mechanism of therapeutic change. This notion is reflected in the theory of intersubjectivity (Stern, 2005; Stolorow & Atwood, 1992), in the integration of infant development research into psychotherapy (Beebe & Lachmann, 2002), and in the theory of implicit relational process (Group, 2010; Tronick, 1998). Relational specificity of the therapeutic process has been recognized as the most essential determinant of its effectiveness (Bacal & Carlton, 2011). Still, the science of specificity in psychotherapy is considered to be in its infancy (Beutler, 2011; Norcross & Wampold, 2011).

## **Vertical Dialectics**

The emergence of the four main models of therapy integration: *technical eclecticism*, *common factors*, *principle-based assimilative integration*, and *theoretical integration* suggest different theoretical levels of integration. The highest level concerns the theory of psychopathology that usually suggests a direction for corrective intervention; one level down is the theory of change that

stipulates mechanisms, through which the corrective intervention effects change; the next theoretical level explicates how a particular intervention carries those mechanisms out. Any given therapy includes (explicitly or implicitly) all the mentioned levels, because any intervention has to be justified and guided by a theory of psychopathology as well as a theory of therapeutic action. That necessitates integration of the mentioned theoretical levels within a given therapy in order to execute an internally consistent therapeutic process. Such integration has to negotiate the constraints that higher theoretical levels direct down the theoretical hierarchy. For example, EMDR is guided by *Adaptive Information Processing* theory (AIP), whereby the source of psychopathology is believed to be maladaptively processed and stored traumatic memories (Shapiro, 2001). Accordingly, the theory stipulates that transmutation and reintegration of the traumatic memory into a broader memory network is the mechanism of therapeutic change (Solomon & Shapiro, 2008). The theory further stipulates that the EMDR system of interventions triggers the proposed mechanism of change and facilitates its action by engaging and guiding the reprocessing of cognitive, emotional, and sensory aspects of the traumatic memory.

One way of negotiating inter-level theoretical constraints was suggested in Godfried's *common factors approach* (Goldfried, 1980). He proposed constructing integrative treatments based on principles of change common to different schools of therapy and identified those principles as: 1) expectation of positive therapeutic change, 2) optimal therapeutic alliance, 3) increasing awareness through an external perspective, 4) improving reality testing, and 5) providing corrective experiences. In a related approach, stages of change are considered such common principles (Prochaska & DiClemente, 1986).

The *principles of change* approach to therapy integration has its critics, who have identified points of contention. One is that it underestimates the utility of distinct theoretical orientations and the ready-to-use toolboxes associated with them. Another related contention is that techniques are more suitable objects for research than principles of change (Hill, 2009). As an alternative, Hill suggests a therapist-client centered integrative approach, where therapy integration is conceptualized as a dynamic process driven by the therapist's techniques that are continually adapting and being updated depending on the client's involvement, therapeutic relationship, and the interplay thereof during the therapeutic encounter (Hill, 2005). Such process-oriented integration seems to allow for greater flexibility, while still adhering to theory-based techniques, thus negotiating the flexibility vs. fidelity dialectic.

Hoffart & Hoffart (2014) have criticized the *principles of change* approach as being incompatible with the principle of causation in therapy. They maintain that in psychotherapy, *principles of causality* should determine its interventions, whereas the abstract and trans-theoretical nature of *principles of change* may violate that causality. They suggest either theoretical or assimilative integration as strategies accommodating causality. In other words, the authors' objections to the *principles of change* approach underscore the need for 'vertical' (inter-level) integration to construct an internally consistent therapy. The nested hierarchy model of therapy integration suggested here allows for integration of multiple theoretical levels comprising the therapeutic process, thus upholding the causality principle. It also integrates 'horizontal' dialectics, as mentioned above. Below, we describe the principles and structure of nested hierarchy of integrative treatments.

### **Nested Hierarchy of Theoretical Principles for Psychotherapy Integration**

In order to integrate theoretical principles of different levels into an internally consistent treatment, we suggest organizing those principles in a hierarchy from the most general to the most specific. Such structure imposes causal constraints from the higher to lower levels, with those constraints serving as the main organizing principle of therapy integration. There are also feedback loops that impose constraints on the higher levels, thus refining and organizing the hierarchical trees of possibilities into the nests of reified treatments (see Figure 1). The feedback feature is essential for guiding and organizing therapeutic process as it evolves. We have identified four levels in the hierarchy of therapy integration which parallel the logic of case conceptualization.

#### ***Level 1 – The Goal of Therapy***

The goal of therapy can either be effecting change or maintenance. Although change is the usual goal of therapy, sometimes therapy aims at maintaining the current level of stability, as in the recovery phase of addiction, preventing decompensation, or sustaining the achieved gains of therapy. This does not mean that change cannot occur during maintenance, only that it is not the intended goal.

The goal of change vs. maintenance determines the set of theoretical principles at the next level. Since therapy is a dynamic process its goals may change depending on the phase of therapy. Since our primary interest is in the change nest, no further discussion of maintenance follows.

## ***Level 2 – Objective of Change/Theory of Pathology***

At this level, the objective of change is determined based on a theory of psychopathology. At least implicitly, any theory of pathology suggests a path out of it. Although a comprehensive discussion of different theoretical approaches to psychopathology is outside the scope of this paper, we suggest such theory be meta-diagnostic. DSM-5, as well as its previous versions, defines diagnoses as symptom constellations. Therefore, a diagnosis-based theory would guide the objective toward elimination of those symptoms. We, on the other hand, consider change a systemic process, whereby a systemic change drives symptom reduction rather than the other way around. Therefore, we favor the system/meta-diagnostic level of theory of psychopathology, where symptoms are viewed as a manifestation of the system's dynamics.

AIP, the theoretical basis of EMDR (Shapiro, 2001), is an example of such theory. Although EMDR was first developed for trauma-related disorders, AIP is not centered on traumatic symptoms but approaches them from the standpoint of information processing and memory formation. That breadth of scope has been conducive to expanding EMDR application beyond trauma-related disorders. Conceptualizing pathology as maladaptive processing and storage of experience suggests an objective for therapeutic change such as adaptive reprocessing of that experience (Shapiro, 2001).

Evolutionary theory is the highest meta-theoretical level in life sciences, because it seeks to explain how the living systems have come to be the way they are including their development and behavior. A number of evolutionary theories of depression consider it a manifestation of the depressive response that evolved as an adaptation to insurmountable adversity (Keller & Nesse, 2006; Nettle, 2004; Watt & Panksepp, 2009). Two therapies have recently been developed based on evolutionary theory of depression. Evolutionary-driven cognitive therapy for depression maintains that a mismatch between the modern human environment and innate adaptive depressive reactions that developed early in hominid evolution leads to depressive pathology (Giosan et al., 2014). Accordingly, it suggests correction of that mismatch as a therapeutic objective. On the contrary, another integrative therapy, treating depression downhill (TDD), considers depressive response adaptive for modern humans as well and prescribes expedited completion of such response as its objective in the initial phase of therapy (Krupnik, 2014). A chosen objective for change determines the

mechanisms of change, which, in turn, inform the corresponding therapeutic interventions.

### ***Level 3 – Mechanisms of Change***

Literature concerning mechanisms of therapeutic change is vast and beyond the scope of this paper. In trying to find the common denominator, we suggest that the mechanism of therapeutic change is experience of change. Although it may sound like circular reasoning, it is not. Instead, we offer that change in therapy comes from experiential learning, which can only come from a new experience. Common examples of this idea are catharsis in psychoanalysis (Freud, 1966), developing new core beliefs in cognitive therapy (Beck, 1967), habituation in prolonged exposure (Foa & Kozak, 1986), and memory transmutation in EMDR (Solomon & Shapiro, 2008).

At Level 2, the objective (see Figure 1) directs and constrains the pathway to experiential learning, which can only be carried out through appropriate mechanisms. Not every mechanism of change may support a given pathway. For example, EMDR theorists posit that fear extinction, which is the proposed mechanism of change in PE (Foa & Kozak, 1986), would not mediate the restructuring of traumatic memory sought in EMDR (Shapiro, 2014). Therefore in EMDR, exposure is de-emphasized and its amount is limited. Although the late development of emotional processing theory, specifically the notion of inhibitory learning (Craske et al., 2008), may suggest a greater overlap between the mechanisms of change operating in PE and EMDR than has been acknowledged.

### ***Level 4 – Intervention (the delivery of change)***

Once the direction of change and its supporting mechanism/s are determined, they require a set of interventions to carry them out. Again, not all interventions may support a certain mechanism of change, though some may prove universal enough to fit many or most. For example, it is difficult to see how free association could help achieve habituation to a single trauma experience of a car accident, or how neurofeedback could accomplish cognitive reappraisal. On the other hand, a quality therapeutic alliance and active empathic listening appear to facilitate treatment across highly diverse therapies (for examples see Erskine, 2015; Goldfried, 1980). There has been considerable research on the importance of such non-specific interventions for therapy outcome (for review see Messer & Wampold, 2002). The intervention level is where psychotherapy integration meets the client.

## **Intra-level Nesting**

The identified levels of therapy integration may contain sub-levels within them (nest inside a nest). For example, AIP theory contains several levels of abstraction (Shapiro, 2001), starting with conceptualizing the therapeutic action of EMDR as transmutation of dysfunctional traumatic memory, proceeding to suggesting a memory structure consisting of cognitive, emotional, and sensory neural networks, and further onto hypothesizing putative neural mechanisms of EMDR's effects (for a recent review see Shapiro, 2014). Likewise, the evolutionary theory of depression suggests the depressive response to be an evolved adaptation, which includes sub-theories of such adaption on social, cognitive, physiological, genetic, cellular, and neural levels (Andrews & Thompson, 2009; Nettle, 2004; Watt & Panksepp, 2009). These sub-levels bear on both the putative mechanisms of change and the corresponding interventions of different levels, where the different levels of intervention may need reconciliation. For example, it is believed that in the desensitization phase of EMDR, it is important to maintain an optimal level of emotional arousal (Shapiro, 2001), whereas cognitive interweave, an intervention of a different level, has a potential to resolve and thusly decrease that arousal and, if ill-timed, may prove premature and counterproductive.

The nested hierarchy tree features a one-to-many relationship down, as well as many-to-one, up the hierarchy. Thus, more than one theoretical construct may correspond (be nested) to a single construct at the higher hierarchical level (see Figure 1). Such arrangement creates a gradient of freedom of choice from more stringent at the top to more relaxed at the bottom. Hence, there can be no flexibility at Level 1, since it is a dichotomous choice between change and maintenance. At Level 2, it is conceivable that more than one objective of change is pursued. For example, in EMDR, desensitization to traumatic experience is sought along with its cognitive reappraisal (Shapiro, 2001). Accordingly, multiple mechanisms may be at play at Level 3 to carry those objectives out, including affect modification, accommodation and assimilation of beliefs, and behavioral reinforcement. Finally, at Level 4, all interventions with a potential to facilitate the involved mechanisms of change may be recruited in various combinations. Such integrative processes may appear to foster a chaotic multiplicity of therapies. However, the bottom-up feedback loops (see Figure 1) are meant to safeguard against that possibility by selecting and binding the nest's components through an iteration of feed-forward and feedback cycles, as the nest evolves into a stable and reproducible therapy. In choosing an intervention the therapist will track back whether it is optimal (in theory and observation) for the intended mechanism of change, and whether that mechanism is optimal for the pursued

objective of change prescribed by the theory of psychopathology that s/he bases interventions on.

NH offers, in this way, several advantages. It reconciles the above mentioned horizontal and vertical dialectics, integrates the existing approaches to psychotherapy integration, and suggests a unified system for classification of therapies. NH also offers testable predictions and suggests directions for psychotherapy research. Finally, NH advocates for a more creative role for therapist in the process of integration.

## **From Dichotomies to Integration**

### ***Fidelity and Flexibility***

In Nested Hierarchy, the constraints on integration relax as one moves down the hierarchy, thus increasing flexibility while decreasing fidelity (see Figure 1). In a study of therapeutic process, Ablon and Jones (1999) compared how closely the protocols of CBT and interpersonal therapy for depression were followed. They observed a significant overlap between interventions used in those therapies. Interestingly, a drift by interpersonal therapists toward cognitive therapy correlated with better outcome. The NH model of integration suggests theoretical hierarchy as a guiding principle for a flexible adoption of interventions, while constraining this flexibility empirically through feedback loops (see Figure 1).

### ***Specificity and Universality***

NH both accommodates and constrains universality, thereby providing for specificity of integrative therapies. Specificity increases and universality decreases down the hierarchy (see Figure 1). At Level 1, universality is highest, since the choice between change and maintenance applies to all imaginable treatments, clients, and settings. At the Level of Theory (Level 2), the choice becomes specific to the client's pathology and diagnostic category. The more universal a theory of pathology, the more conditions and diagnoses its nested therapy could be applied to. AIP theory of psychopathology is universal for all traumatic experiences, hence EMDR has been applied to a wide spectrum of conditions believed to be trauma-related (Shapiro, 2009). In contrast, the evolutionary theory of depression is specific to depressive disorders, and therapies that are based on it have only been applied to them and shown to be specific to those disorders (Giosan et al., 2014; Krupnik, 2014).

Putative mechanisms of therapeutic actions (Level 3) further constrain universality, making the treatment more specific, as illustrated by modification of the standard EMDR protocol for current trauma (Shapiro & Laub, 2008). At the lowest level (Level 4), therapy grows even more specific, as the choice of interventions is specific not only for the theory of pathology and the putative mechanism of change but also for a particular client and therapeutic dyad.

### ***Vertical Integration***

The commonly identified pathways to psychotherapy integration - technical eclecticism, common factors, assimilative integration, and theoretical integration - are already arranged in a hierarchical order. Theoretical integration appears at the top, followed by assimilative integration, then common factors, and eclecticism at the bottom. These integration strategies, however, are traditionally thought of as alternative. Moreover, according to Hoffart and Hoffart (2014) only theoretical and assimilative integration uphold the principle of causation and are thus seen as being the only valid integrative models. NH accommodates the mentioned pathways by organizing them at different levels of the hierarchy (see Figure 1), so that theoretical integration happens at Level 2, technical – at Level 4, common factors – at Level 3, and assimilative integration organizes interventions across Levels 3 and 4 under the theoretical principle of choice from Level 2. Hence, theoretical and assimilative integration together would comprise the whole nest under the Level 1 goal.

Ego states EMDR therapy can illustrate such integration. At Level 1, the goal of this therapy is to effect change in a traumatized client, specifically a client with a fragile and disrupted ego. Accordingly, at Level 2, AIP theory is integrated with ego psychology, where they are treated as complementary (Knipe, 2015; Paulsen & Lanius, 2009). In short, ego states are viewed as functional units organizing and biasing the processing of information, particularly information relevant to the traumatic experience. Adaptive information processing, therefore, requires well-integrated stable ego states. This theoretical principle can assimilate a number of mechanisms of change at Level 3, as long as they do not contradict it. Examples of such mechanisms include inactivation of psychological defenses, modification of the attachment style, improved reality testing and affect control, and reconfiguration of traumatic memory networks in the service of integrating different ego states. Of note, Level 2 and 3 (Figure 1) integration in ego states EMDR appears seamless and organic, because adaptive information processing can be considered the main (if not only) ego function, which both

serves and depends on well-integrated ego states. It should also be noted that common factors and principles of change are, by definition, trans-theoretical and therefore are amenable to integration into most theoretical nests.

Interventions (Level 4) in ego states EMDR include an array of techniques supporting the above mentioned mechanisms of change. Their examples include developing insight into different ego states in order to better integrate them, establishing a trusting therapeutic relationship to facilitate change in the attachment style, practicing affect tolerance in order to facilitate reprocessing of traumatic memories, and reprocessing and desensitization of those memories. In addition to meeting the requirement of not violating the nest's causal hierarchy (see the feedback dashed arrows in Figure 1), integration of these interventions also meets the criterion of necessity. A disrupted ego may not be conducive to reprocessing of traumatic experience, thus requiring interventions to stabilize and integrate it.

### **Nested Hierarchy and Integrative Therapy**

Nested Hierarchy does not describe any particular model of integrative therapy but suggests a set of principles that can assist in developing one by providing both generative and constraining rules. Metaphorically speaking, NH is a methodological scaffold for construction (or rather co-construction) of a coherent, causation-driven treatment. For this reason, it is more concerned with the content of therapy than its process, although in psychotherapy the two are inextricably intertwined. Potentially, this methodology can assist development of as many integrative therapies as there are therapeutic encounters. The yet unproven rationale for using it is that the resulting coherence may entail consistent effectiveness.

How NH relates to particular models of integrative therapy is too broad a question to address in a context of introducing NH principles and is, therefore, beyond the scope of this article except for the purpose of illustrating certain aspects of NH. Above, I used ego states EMDR as an example of how NH achieves vertical integration of theoretical principles and therapeutic interventions. Relational or process-oriented therapeutic models, including Erskine's model of Integrative Psychotherapy (Erskine & Moursund, 2011; Erskine & Trautmann, 1996), correspond to NH in a more comprehensive way, since relational principles are embedded in NH. Psychotherapy is a process of social transaction, therefore therapeutic relationship is implicitly or explicitly present throughout NH. The relational nature of the nest is evident starting from

Level 1 (see Figure 1), since the choice of therapeutic goal is arrived at through establishment of a therapeutic alliance. At Level 2, most theories of psychopathology are rooted in the developmental and, therefore, relational perspective, whereas all interventions at Level 4 happen through social transactions. Mechanisms of change (Level 3), on the other hand, may be viewed as intra-psychic, not necessarily relational. However, from the psychodynamic/developmental perspective, one would claim that many if not most intra-psychic processes happen in relation to other people, for whom the therapist may serve as a transference object. This view aligns with Erskine's understanding of human suffering as coming from disrupted relational needs and the corresponding goal of therapy to repair those disruptions through contactful therapeutic presence (Erskine, Moursund, & Trautmann, 2013).

On a formal level too, Erskine's Integrative Psychotherapy can be aligned with NH. The stated primary goal of his Integrative Psychotherapy is integration of the client's self, which falls under the goal of change in NH (Figure 1). Following that goal at Level 2, Erskine's model integrates multi-level theories of the client's functioning from physiological reactions through systemic social constraints and influences. Malfunctioning or deficiencies of the client's self are understood as stemming from disruptions of relational needs, which points to a possible mechanism of change at Level 3, i.e. repair of those disruptions. Such repair is believed to facilitate the sought integration of the client's self. This mechanism of change then requires a suitable set of interventions. Whereas in Erskine's Integrative Psychotherapy this set is comprised of certain techniques such as inquiry, attunement, and involvement, the set is conceptualized as a process of contactful therapeutic presence, which is both the premise and the goal of therapy (Erskine, Moursund, & Trautmann, 2013).

Where process-based Integrative Psychotherapy meets the structure-based nest of integration, is NH's iterative nature. In NH, the top-down theoretical principles are tested and validated (or invalidated) by feedback from the lower levels (dashed arrows in Figure 1), thus leading to optimization of the nest. This iterative process is bound to therapeutic relationship, which is the ultimate source of the feedback as well as the endpoint of the top-down corrections.

Expanding on the above metaphor, we would say that whereas NH is a scaffold on which an integrative therapy is built, it is built in intersubjective space with the material of therapeutic relationship. This metaphor may sound overwrought, but its challenge is to match the complexity of therapeutic encounter.

## **Classification of Therapies**

Besides providing a structure and a guiding principle for therapy integration, Nested Hierarchy offers a taxonomy of therapies that is also organized as a hierarchical tree with large taxa at the top, comprising families of smaller taxa down the hierarchy. There are two taxa at Level 1, change and maintenance. Each includes a family of theories of pathology at Level 2, which in turn include a family of mechanisms of change at Level 3, and finally a family of interventions at Level 4 (Figure 1). In such a classification a therapy is identified by its nest. For example, EMDR would be classified as Change (Level 1), AIP theory (Level 2), transmutation of traumatic memory/ desensitization to traumatic memory (Level 3), bilateral stimulation, cognitive interweave, emotional awareness, and guided imagery (Level 4). Ego states EMDR would include the integrated AIP/ego psychology theory at Level 2, additional ego states mechanisms of change, and interventions such as ego states stabilization and integration, reality testing assistance at Level 4.

Notably, elements of such taxonomy have long been in use, although not in a formalized way. Cognitive therapy (CT), similar to EMDR, has evolved into a family of therapies that includes CBT (Rachman, 1997), trauma-focused CBT (Cohen, Deblinger, Mannarino, & Steer, 2004), cognitive processing therapy (Resick & Schnicke, 1993), evolutionary-based CT (Giosan et al., 2014), mindfulness-based CT (Williams, Teasdale, Segal, & Kabat-Zinn, 2007), and exposure-based CBT for depression (Hayes & Harris, 2000). This confirms that hierarchical taxonomy may be a natural evolution of psychotherapy classification away from a catalogue of treatment brands.

NH-based taxonomy may appear cumbersome with 'fuzzy' boundaries, which is expected given the complexity of the specimen, but it offers advantages over an unstructured list of brands. One is that NH organizes therapies into a family of related and interconnected procedures, thus doing away with their redundant multiplicity. Two, it provides an alternative frame for psychotherapy research, which will be discussed below. Three, NH-based taxonomy may help construct integrative treatments by establishing relationships between the elements of cognate therapies, thus instructing practitioners on available options for combining theories and techniques in a systematic fashion.

## **Research Considerations**

The nested hierarchy view of psychotherapy multiplicity and interrelationships forges a corresponding approach to psychotherapy research. In the predominant

paradigm, therapies are treated as distinct treatment packages to be compared in efficacy and effectiveness. Even when common factors such as therapeutic alliance, empathy, and motivation for change are studied, the assumption is that they are common to independent therapies, and mechanisms of change are mostly studied within their respective theoretical orientations.

Necessary and useful as it is, this paradigm has its limitations. It leaves certain important questions outside its scope. For example, an important question is how efficacious a hypothesized mechanism of change could be in different therapy contexts. As long as a therapy is considered a fixed set of techniques, the context is presumed constant, although, as mentioned before, in real practice, drift from the fixed sets is common. The same question remains unaddressed in regard to common factors of change, as they too are 'trapped' in the context of fixed treatment packages. Yet, common factors have been shown as the main contributors to the outcome (Laska, Gurman, & Wampold, 2014), leading to a hypothesis that any therapy that contains all the common factors of change will be efficacious. Nested Hierarchy offers a hybrid research model that by design would accommodate specific factors, common factors, and context.

At Level 4 of NH, therapies are represented as sets of interventions (see Figure 1 and 3). For the sake of analysis, all interventions can be organized along two dimensions, verbal and non-verbal, thus forming a grid, examples of which (far from comprehensive) are given in Figure 2 and 4, the latter representing a case example. Each intervention is then given a value according to the length of time it takes up in therapy. That value represents the intervention's dose, relative to which its contribution will be estimated. On the grid every therapeutic encounter appears as a unique profile of qualitatively and quantitatively represented interventions. Accordingly, outcomes are compared not between therapy brands but between sets of interventions, delivered by sets of therapists, to sets of clients, in sets of social encounters.

Sets of therapists are defined by their theoretical orientation (if any), experience, education, and demographics such as age, gender, socioeconomic status, family and cultural background. Sets of clients are defined by their symptoms, diagnosis, demographics (same as for therapists), life experiences, such as traumatic, disruptive, and formative life-events, and the level of motivation. Motivation for change is considered essential for therapy outcome (reviewed in Ryan et al., 2011). Sets of social encounters are defined by the quality of alliance, level of trust, and emotional attunement. Whereas some of the above parameters are a matter of factual report, others (e.g. motivation, trust,

attunement) need to be measured with the existing psychometric tools. Obviously, such study cannot be designed as rigorously as randomized clinical trials. Instead, a naturalistic design is suggested, where individual cases with the above parameters and outcome measures will be uploaded into a shared database, like a “wikitherapy” of sorts.

As the database grows through crowdsourcing, it will be analyzed with multiple regression and factor analysis to estimate the interventions’ contribution to the outcome and to identify clusters of interventions that may belong in the same nest and facilitate the same mechanism of change. Gradients of effectiveness can be expected to emerge on the grid, where certain combinations of interventions are more effective than others. The expected large size of the database may minimize the confounding variables unavoidable in such uncontrolled data collection process.

The “highly effective intervention” sets will be organized in hierarchical nests with best-fitting theoretical constructs of higher (1-3) levels, thus producing internally consistent integrative therapies. Such empirically informed therapies will then be compared to well-established evidence-based brands in randomized controlled trials. The ineffective intervention sets may prove useful as points of comparison for further study of putative mechanisms of change.

The proposed two-dimensional grid can be refined with additional dimensions to capture non-verbal communication (including silence), affective expression, or affective synchronization (Marci, Moran, & Orr, 2004). Such fine a grid, however, would have its challenges. It will require a detailed analysis of each video recorded session, and the number of potentially relevant variables will result in a statistical power tradeoff. It is important to emphasize that the project outlined here is not meant as a research proposal, but as a description of a possible research paradigm. Therefore a detailed description of the proposed database is preliminary at this point and outside of the scope of this article.

Another potential contribution of the NH approach is that it is designed to capture failed cases. Bradley and colleagues (2005) estimate the non-response rate for PTSD treated with evidence-based therapies, including EMDR, is 30% at best. These 30% are deemed treatment-resistant and usually fall outside of research focus. The tradition of successful single case reports at the exclusion of failed ones has prevailed since Freud’s times. Yet, in order to understand how therapy works, it is important to figure out how and why it fails. It is the belief of

this writer that failed cases carry valuable information that the NH approach is capable of expounding.

Verbal \ Non-verbal	BL S	TF T	NF B	HT	TM S	EC T	Medications	Behavioral activation	Behavioral modification	Exposure in vivo
Developing insight										
Analysis of transference										
Cognitive challenge										
Exposure in vitro										
Self-monitoring										
Resources development										
Narrative building										
Mourning										
Hypnosis										
Meditation										

**Figure 2:** An Example of the Intervention Grid

- Key = *BLS* – bilateral sensory stimulation as used in EMDR  
*TFT* – finger tapping as used in Thought Field Therapy  
*NFB* – neurofeedback  
*HT* – Healing Touch Therapy  
*TMS* – transcranial magnetic stimulation  
*ECT* – electro-convulsive therapy

Certain interventions can be applied in the same session or even simultaneously. Each intervention can be measured in the most appropriate units, e.g. number sessions, procedures, dose.

**Predictions**

Suggesting a strategy for therapy integration implies an expectation of increased effectiveness of integrative treatments relative to their prototypes. Accordingly, the overarching prediction for the Nested Hierarchy approach is that it will lead to more effective therapies. The notion of a greater effectiveness has several dimensions when testable hypotheses are offered.

The first of these is the *general effectiveness* (efficacy) dimension. The prediction is that violating the nest's hierarchy would decrease the efficacy of an integrative therapy. If an intervention and its putative mechanism of action do not conform to the nest's Level 2 theory, that will constitute such violation and compromise the treatment's efficacy. For example, it is predicted that integrating the unique prolonged exposure interventions (PE) into EMDR will not be beneficial, while integrating the unique interventions of cognitive processing therapy (CPT) may. The hypothesized mechanism of change in PE is habituation (or extinction) of fear response (Foa & Kozak, 1986). This mechanism is believed to differ from EMDR's theoretical premise and presumed mechanism of action (Shapiro, 2014). On the other hand, the putative mechanism of change in CPT is cognitive restructuring (Resick & Schnicke, 1993), which is compatible with EMDR theory, inasmuch as it seeks a positive shift in trauma-associated cognitions (Shapiro, 2001).

The second dimension is *effectiveness for a particular client population*. It is conceivable that an integrative therapy may not be more efficacious than its prototype but may produce a better outcome for a certain set of clients. Such therapy would need to integrate a theory of psychopathology for that particular subset. For example, the prediction is that evolutionary-based therapies for depression will be effective for clients whose pathology is based in depressive response, while relatively ineffective for conditions where depressive symptoms are secondary to anxiety or trauma-related disorders.

The third dimension (less popular in current research) is *effectiveness of delivery*. That is, how effective a therapist can be in delivering a therapy. A set of interventions may not be neutral to a therapist's ability to carry them out. Inclusion of an incongruent technique may not only be a threat to therapy's efficacy but may also hamper a therapist's delivery of it. One of the tenets of Adaptive Information Processing theory of EMDR is that the mind has an inherent ability to transform traumatic memory into a more adaptive configuration, which process is facilitated by EMDR (Solomon & Shapiro, 2008). Therefore, it is believed that the processing phase of EMDR should proceed with least possible interruption. Accordingly, EMDR therapists use cognitive interventions sparingly during processing (Shapiro, 2001). Inclusion of systematic cognitive challenges in this phase, as done in CBT, may not only interrupt the flow of processing, but disturb the therapist's attunement to it. We predict that interventions that do not violate the nest's hierarchy have less chance to undermine therapist's effectiveness.

## **Case Vignette**

The following case vignette provides an example of the co-creation and implementation of integrative therapy. A complicated case was deliberately chosen in order to showcase the flexibility and accommodating capacity of the Nested Hierarchy approach.

### **The Client**

Justin is a 28-year-old married man. He presented at a local mental health clinic after having been hospitalized for five days in a psychiatric unit following an interrupted suicide attempt by ingesting his pain medications. In the clinic, he was assigned a nurse practitioner for medication management and a therapist.

During a semi-structured intake interview, Justin disclosed a chronic pattern of depressed mood and anxiety with an onset in early childhood, when he was taken from his mother's custody and placed in his maternal aunt's household. There, he grew up as the only child with the aunt and her husband until he graduated from high school and enlisted in the military to "get away from the aunt." As a child, he had visitations with his mother and always dreaded coming back to the aunt. Justin did not remember having been happy for more than a week at a time. He remembered himself as a shy, reserved, and socially awkward child that spent much time playing alone. He described his aunt as a strict, domineering and cold woman, whom he tried to avoid as much as he could.

Justin's suicide attempt was precipitated by a combination of stressors including having a newborn child, a high workload and a back injury, for which he was awaiting medical retirement. He reported a tendency to be easily overwhelmed by stress, where he would grow anxious and would subsequently "freeze" with a feeling of impending doom. That tendency had remained strong despite his supportive wife and in-laws. Justin was diagnosed with persistent depressive disorder (DSM-5) by both his prescriber and therapist. The therapist conceptualized the case as a chronic depression precipitated by the early separation from mother, and sustained by learned and reinforced depressive response. The link between early loss and depression has long been noticed and described (Bowlby, 1988), and more recently, depressive response was hypothesized to evolve as a protective mechanism against early separation from

mother (Watt & Panksepp, 2007). Accordingly, the therapist chose treating depression downhill (TDD)-EMDR for therapy, to which Justin consented.

### **The Process of Integration**

TDD-EMDR is a recently developed psychotherapy integrating an evolutionary-based therapy designed specifically for depressive disorders, TDD, and a set of EMDR interventions. The main reason for this integration is to facilitate the second phase of TDD, which is based on mindfulness (Krupnik, 2014).

At Level 1 (see Figure 1 and 3), TDD and EMDR are obviously compatible, since both seek to change the client's mental condition. Noteworthy, EMDR uses 'future template installation' to ensure that the adaptive change gained in therapy is activated in response to future challenges (Shapiro, 2001). TDD, however, does not have a future-oriented intervention, and that distinction became important late in Justin's treatment.

At Level 2, the therapist followed the evolutionary theory of depression, on which TDD is based, consistent with the case conceptualization that depressive response was driving Justin's psychopathology. EMDR has been used for depression before from the perspective of trauma, where depressogenic life events were treated as traumatic, and the standard EMDR protocol was used (Bae, Kim, & Park, 2008; Broad & Wheeler, 2006; Grey, 2011; Gauhar, 2016; Uribe, Ramírez, & Mena, 2010; Hofmann et al., 2014). TDD, on the other hand, considers depressogenic events normative life adversity. This is an important theoretical difference, since it suggests different sources of psychopathology. Whereas EMDR (and its theoretical basis, AIP) sees the source of psychopathology in trauma, TDD finds it in unmet needs and frustrated drives, more in line with Freudian (Freud, 1966) and Maslowian (Maslow, 1943) traditions. Speaking of unmet relational needs, Erskine's integrative psychotherapy views them as an impediment to personality integration, causing disruption in personal development and interpersonal functioning (Erskine, Moursund, & Trautmann, 2013). Although one could make an argument that a failure to meet a person's needs may be traumatic, equating unmet needs with trauma would strip either concept of its meaning. Accordingly, the therapist used the TDD therapeutic frame and integrated it with select EMDR interventions that would not violate the TDD nest (Figure 3).

At Level 3, the presumed mechanisms of change in TDD differ from EMDR. In TDD, the main mechanisms are believed to be (a) inhibition of protest by acceptance of defeat, and (b) behavioral activation of the reward/motivation circuitry, where 'a' and 'b' are activated sequentially (Krupnik, 2014). In EMDR, the presumed mechanism of change is reintegration of traumatic memory into a larger neural circuitry, which facilitates the memory's regulation and increases adaptation. Traumatic memory is conceptualized as a multi-domain circuitry that includes physiological, emotional, and cognitive components (Solomon, & Shapiro, 2008). In order to maintain consistency with Level 2, the therapist aligned his interventions with TDD-based mechanisms of change. It is unclear how much overlap there is between the mechanisms hypothesized in TDD and EMDR due to their highly speculative and metaphorical nature. Still, formulation of such mechanisms is important to guide the choice of interventions.

Level 4 is where the integration occurred. Modified EMDR interventions (phases 3 – 7 of the standard protocol) were integrated into the acceptance phase of TDD, as previously described (Krupnik, 2015a, b). Since EMDR interventions are believed to facilitate the transformation of traumatic memories, the therapist hoped they could also facilitate the dispositional transformation from protest to acceptance, sought in acceptance phase of TDD. In evolutionary theory of depression, the transition from protesting disposition (against adversity) to acceptance (or acquiescence) has been seen as the core mechanism of depressive response (Watt & Panksepp, 2007).

The unique procedure of EMDR is bilateral sensory stimulation (BLS), and although multiple hypotheses have been offered to explain the effect of BLS (for review see Jeffries, & Davis, 2013), its mechanism is poorly understood. However, a plausible hypothesis about the role of BLS in the context of TDD-EMDR could be helpful to its practitioner. From a practitioner's standpoint, we need a level of explanation consistent with the level of practice. That is, a systemic explanation, since a practitioner works with the whole mind, not just its modules or circuitries. In the acceptance phase of TDD-EMDR, a transition from protest to acceptance is sought in the same way that the standard EMDR protocol seeks transition from the negative self-appraisal to a positive one.

In the dynamic systems theory such process can be described as state transition from one attractant state to another. To achieve such transition the system needs to be challenged internally or externally (Thelen & Smith, 1994). It is speculated that exposure to disturbing thoughts and feelings in conjunction with BLS facilitates such state transition by delivering a challenge that is (a)

sufficient to destabilize the initial attractant state and (b) mild enough to trap the mind in a desirable new attractant state, i.e. acceptance or/and positive self-appraisal. Relevant to this hypothesis, data has been found in the recent discovery that auditory BLS increases the amygdala activation in response to a noxious image by presumably inhibiting its prefrontal control (Herkt et al., 2014). This data can be interpreted as a synergistic destabilizing action of exposure and BLS. However, experimental demonstration of BLS' role in the presumed stabilization of the mind in a new attractant state is still to be determined.

The use of exposure has recently been expanded from its traditional applications for anxiety and trauma-related disorders to treating depression as well (Hayes, Beevers, Feldman, Laurenceau, & Perlman, 2005). The idea that BLS may render dysfunctional cognitive and emotional circuits labile enough to make them amenable to manipulation and re-integration has been suggested before (Coubard, 2014). It is unclear whether the mechanisms of BLS and mindful meditation have anything in common, but it is noteworthy that the desensitization phase of EMDR utilizes mindfulness of the client's feelings and bodily sensations in conjunction with BLS (Shapiro, 2001).

It is important to emphasize that although the therapist approached the described case with an agreed upon blueprint of an integrative therapy (TDD-EMDR), the integration evolved through a dynamic interaction of that blueprint with the flow and contingencies of the therapeutic process. The following is an account of these dynamics.

### **The Course of Therapy**

At intake, Justin had a BDI-II (Beck, Steer, & Brown, 1996) score of 28 (moderate severity). The exploration phase was psychodynamically informed, aiming at uncovering the developmental and unconscious dynamics driving Justin's depression. He revealed that he had never felt depression-free for a significant length of time since the age of eight, when he was separated from his mother. He did not know and could not reconstruct the exact reason for being removed from her beyond a general notion that she was struggling with her "personal problems." Two major themes emerged over the first three sessions. One was Justin's pervasive disappointment in himself as a worker, husband, and head of the household. The precipitating event for his suicide attempt was an argument with his wife, where she threatened divorce. He felt he was incompetent to handle the stress of his life, stating "I'm not as good as I should have been." The second theme was his feeling of entrapment in his life situation.

He injured his back and was facing medical retirement, feeling anxious and uncertain about his ability to provide for the family, especially given that his wife had recently become pregnant with their second child.

In exploring the underlying dynamics of Justin's reactions to stress and life challenges, both themes were traced to his early childhood experiences. Justin recognized that abandonment by his mother had left him with a sense of low personal value, "not as good as I should have been," and high vulnerability to slight and criticism both at work and in the family. He also recognized that he had felt trapped and helpless ever since he had been placed in his aunt's custody. He never felt loved in that house, and though never attempted, always wanted to escape. At this point, the therapist felt the projected helplessness and the implicit expectation of becoming a caretaker for Justin, which even prompted him to conduct a structured interview to rule out Dependent Personality Disorder. Justin endorsed traits 1, 3, and 7 of Dependent Personality Disorder (DSM-5, code 301.6), falling short of meeting the diagnostic criteria. His neediness, fear of abandonment, low self-esteem, and tendency to feel overwhelmed and helpless under stress were interpreted as vestiges of his childhood loss and entrapment. The sense of loss and low self-esteem were then chosen as the initial targets in the next (acceptance) phase.

In the fourth session, the therapist used EMDR interventions while cuing Justin to the transition from protest to acceptance, according to TDD-EMDR protocol (Krupnik, 2015a). In short, while evoking the patient's negative thoughts and feelings related to his experience of loss and his perception of self as unworthy, the therapist applied sets of BLS (eye movements), interspersing them with verbal cues. The cues were suggestive of disengagement from the protest, for example, "Is there anything you can do about it now? What could you do? Can you change that? Do you have any control over it?" Justin would acknowledge the limits of his control over the situation and of his ability to change it, which would initially perturb him, triggering sadness with the associated visceral bodily sensations such as tightness in the chest and emptiness in the stomach. As the session progressed, the sadness and visceral sensations decreased in intensity, and he felt "calmer."

In session five, Justin reported improved mood and a higher confidence, as well as more stable sleep. By that time he had come up with some positive statements about himself during EMDR interventions, "I'm as good as I am, I guess," and expressed a more future-oriented attitude, "I need to move on." He expressed confidence in his future career path, as well as his ability to provide for

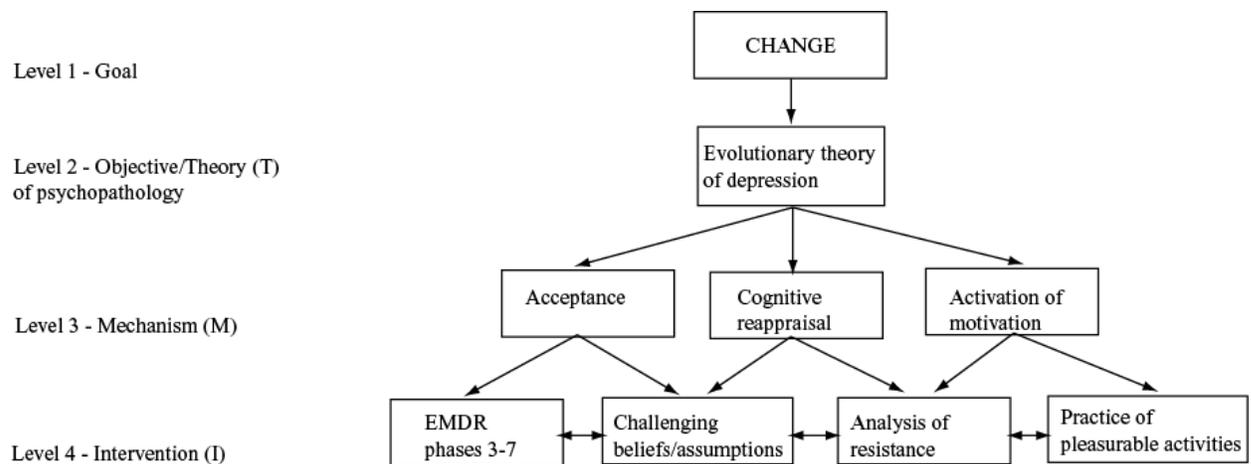
the family, given his retirement income and benefits. In the sixth session, his BDI-II score dropped 50% to 14 (mild severity), at which point the therapist started the behavioral activation phase. Behavioral activation continued through the end of therapy along with other interventions.

Although engaged in his behavioral plan, Justin continued presenting with mild and episodic depressive symptoms, including irritability, frustration when dealing with stress, and occasional insomnia. In general, the therapist still perceived in Justin a subdued hedonic tone and continuing neediness. When he shared that impression, Justin accounted for his residual symptoms by lingering anxiety about his future, as well as his frustration with chronic back pain and accompanying physical limitations. The therapist interpreted Justin's negative reactions to stress as a still unresolved negative self-appraisal. Therefore, together they decided to further target his sense of defeat with EMDR interventions. In the following EMDR session Justin's self-referential statements appeared well-balanced and without sadness. His hedonic tone, however, still appeared mildly depressed, so the therapist decided to return to exploration. In the next four exploratory sessions, again mostly psychodynamically informed, Justin focused on the fluctuations of his emotions related to the upcoming separation from his pregnant wife and his toddler daughter. They were moving to their home state ahead of him to set up a household there, while he was waiting for his medical retirement. He also reported a strong reaction to the death of his wife's grandmother. The reaction surprised him, since his wife dealt with the death with far less distress than he. Another set of self-report measures returned a BDI-II score of 25, and Justin admitted that he had again slid into depression, losing his therapeutic gains.

In the next session, the theme of his dependency on others, including the therapist, resurfaced. That lack of agency was interpreted as Justin's passive aggression, developed in childhood as a defense against the domination of his aunt. At that point, Justin and the therapist decided to target his sense of being overpowered and defeated by life circumstances. Again, the therapist used EMDR interventions. Applying BLS, the therapist cued Justin into acceptance of the power of life circumstances as well as his personal limitations. In two EMDR sessions, Justin developed a seemingly more balanced perspective on his personal powers. He recalled instances in his childhood, where he would exercise the power of his agency, escaping the chokehold of his life circumstances. The therapist followed those revelations by 'resource installation,' a standard EMDR procedure. The therapist guided Justin to focus on his

experiences of agency and the evoked feelings (“freedom,” “power,” “kind of cool”) while performing BLS.

Although not part of TDD-EMDR, ‘resource installation’ is especially central to ego states EMDR (Forgash, & Knipe, 2008). The ego strengths perspective does not fall under the Nested Hierarchy of evolutionary theory of depression, but it does not violate the nest either. Recovery from any psychopathology relies on a functional ego. Moreover, it can be speculated that a relatively intact ego is necessary for an adaptive depressive response lest such response degenerates into psychosis. Another set of self-report measures was taken in three sessions, and Justin’s BDI-II score dropped again to the mild range of 11. He reported feeling emotionally stable and realistically confident in his near future. After two follow up sessions, Justin stopped coming to therapy, since he felt he was getting too busy with the logistics of his retirement, which was coming in a month. The total length of his therapy was 20 sessions.



**Figure 3:** The Nested Hierarchy of TDD-EMDR.  
(Horizontal arrows indicate overlapping interventions)

### The Case Highlights

Justin’s case is one that did not go according to a clear cut template but instead was convoluted as a majority of psychotherapy practice can be. This case attempts to illustrate how the integration evolved in the process of therapy, co-constructed through patient-therapist collaboration. In that we follow the notion that integrative therapy is not a ready-to-use product but evolves in the process (Hill, 2005) and is, in essence, relational (Erskine, 2015). This case also

illustrates the dialectic between the process-driven intuitive “art of therapy” and a scientifically-based structure, where the structure provides a scaffold that is filled with a social encounter, while the scaffold is being built. This way, the structure and the therapeutic flow not only exert mutual constraints, but also build upon each other, not unlike the skeleton and soft tissues of a growing organism.

The “integrate-as-you-go” approach has its limitations as well, as Justin’s case illustrates. A hierarchical nest is not a ready-to-use treatment package but provides a blueprint for therapy without the power to predict what exact set of interventions may be the most effective reification of the blueprint. For example, the therapist did not explore the likely possibility of Justin’s insecure attachment style, and no interventions were used to correct it. Nor did he address Justin’s lack of assertiveness and his inability to appropriately express his emotions. There are also different theoretical frames that could have been applied to the case, such as grief work over the separation and loss of Justin’s mother, or trauma work, had that loss been conceptualized as traumatic. It was not possible to determine before-hand which approach would have worked best, because each of them is backed by an evidence-supported therapy, such as CBT, interpersonal therapy, emotion-focused therapy, and EMDR. Moreover, each approach’s effectiveness would likely depend on how well it would match a particular therapeutic dyad, and a particular therapist’s style and preferences. At the same time, the freedom of choice plays into the therapist’s strength of using clinical judgment and intuition to assess the effect of chosen interventions, and, if need be, to adjust the nest. The Nested Hierarchy principle can always guide the therapist in constructing a nest, lest s/he feels ‘lost’ in the multitude of available interventions. It allows the therapist to make a theory-informed choice of interventions without being restricted to a particular treatment package or brand.

“Integrate-as-you-go” also means that there are as many therapies as there are cases.

This clearly presents a challenge to therapy outcome research. The proposed case-based research program described above may serve as complementary to the randomized controlled trial research paradigm. In that approach, Justin’s case would be represented in the database as shown in Figure 4 along with its hierarchical nest (see Figure 3), required psychometric measures, diagnoses, and demographics.

Verbal	Non-verbal	BLS*	Behavioral practice, days (outside session)	Medications, days (outside session)	Total sessions
Developing insight	3	5	30	240	20
Analysis of transference	1				
Challenging cognitions/offering interpretation	7	5			
Confronting disturbing thoughts and feelings	11	5			
Self-monitoring		5			
Resources development and 'installation.'	2	2			
Unstructured interventions	3				

**Figure 4:** Justin's Intervention Grid

\*BLS = sets of saccadic eye movements, 25-30 movements each.

Intervention doses are measured in number of sessions, where they were used, unless indicated otherwise. The sum of all sessions by intervention is greater than the total number of sessions, because more than one intervention was used per session.

## Conclusion

This paper demonstrates how the Nested Hierarchy principle accommodates four main strategies of psychotherapy integration - theoretical, principle-based assimilative, common factors, and eclectic - by organizing them into a hierarchical nest (Figure 1 & 3). Such hierarchy can guide and constrain integration of interventions and their supporting theories. NH taxonomy may inform practitioners about the relationship between therapy nests. One of the features of NH is its high flexibility at the lower levels (Figure 1), which allows for adjustment of the treatment to a given therapeutic encounter, thus increasing the treatment's specificity.

One overarching debate in psychotherapy research, although not always framed this way, is that of the art of therapy vs. the science of therapy. The medical model is incompatible with the art model, yet therapy is commonly referred to as an art. NH principles of psychotherapy integration offer a unifying model, whereby integration is organized by scientific rules and its effectiveness is studied with scientific means, and where therapeutic process is artfully constructed by the therapist in an encounter with the client. We see it as analogous to staging a play. The same script can inspire an infinite number of renditions, each powerful in its unique way, although some of them are bound to be a flop.

The fact that even most effective therapies have a non-response rate of 30% and that randomized controlled trials demonstrate similar effect sizes for different therapies demonstrates that there may be a significant need for such unique renditions to target clients unresponsive to the standard protocols. How do we define an effective therapist? Is it the one who consistently produces 70% success rate, or the one who is able to succeed with the remaining 30%? There is no evidence that the same set of skills is required for the former and the latter. If indeed, as suspected, the skills differ at least in part, the Nested Hierarchy approach accommodates the therapist in pursuit of either more prototypical or more integrative therapies according to his or her strengths and weaknesses.

**Author:**

*Dr. Valery Krupnik* earned his Ph.D. in molecular biology from the Institute of Microbiology and Epidemiology in Moscow, Russia, and did research in immunology and neurodevelopment. He then made a career change to become a practicing psychotherapist. He initially trained in psychodynamic therapy at Salem State University in Salem, Massachusetts, and became a fellow with the American Psychoanalytic Association. His later interests include development of integrative therapy for depression and applying EMDR to its treatment. He is a certified EMDR therapist and a member of the EMDR International Association. He is currently practicing at the department of mental health of the Naval Hospital at Camp Pendleton, California.

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