

The Common Infrastructure of Psychotherapy

A plain language, clinical framework where neuroscience shows how words and relationship can bring about change

The Human Mind: A Modern View

The mind is not:

A “cauldron of seething excitations” as envisioned by Sigmund Freud, the Victorian (whom I respect greatly).



Nor the infinitely trainable blank slate of Pavlov, Watson, and Skinner.

The human mind is:

An organ of adaptation, evolved to respond to complex and changing environments in a self-organizing and goal-directed manner. It bears many traces of its inheritance over the ages:



Bodily regulation, fight and flight



Social Cohesion



Self-awareness and the capacity to self-regulate through pride, shame, & guilt



Conscious planning & decision making

A More Modest View of Consciousness

Consciousness is limited.



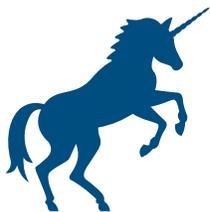
We value highly our conscious processes, but, estimates are that 95% of the mind's information processing takes place outside of consciousness. Nonconscious information processing includes production of "hunches," "gut instinct," much of creativity, what makes ideas and words "resonate," and a host of instinctive, automatic responses over which we have little control.

Consciousness is selective.

Consciousness is analogous to the monitor on the computer, a light curtain separating a selected and very limited view from the bulk of the machine's many calculations and their results.



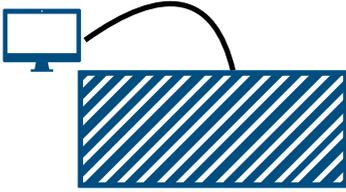
Consciousness is rich and nuanced



Conscious thought is "articulate." It has great subtlety due to sharp distinctions and clearly defined relationships. By contrast, nonconscious logic builds associations and opposites without specifying their exact relationship, perfect as starting points for creativity and invention.

The conscious feelings we celebrate in poetry are more subtle and rich in detail compared with activation of core limbic emotional areas. Core emotions, while more rudimentary, are responsible for triggering protective reactions and the motivational systems that drive them, including the adaptive and maladaptive patterns that are the particular concern of psychotherapy.

The Nonconscious Mind



The part of the mind that operates outside of consciousness constantly monitors inner and outer environments for opportunities and dangers. It is the source of various spontaneous products that can gain access to consciousness. These are direct responses or may function to influence conscious decisions:

Actions

Feelings

Thoughts

Relating

Bodily Regulation



Products of the nonconscious mind are instrumental in shaping our conscious choices. We react to spontaneous or automatic thoughts, feelings, impulses, relational events, and bodily changes. CBT deals with maladaptive reactions to automatic responses.

Problems Targeted by Psychotherapy

Some of the mind's responses are not optimally adaptive. Maladaptive patterns "entrenched" to the point of requiring professional help are almost always responses to consciously or unconsciously appraised *threats*, as opposed to opportunities.



Some Are Inherited; Some Are From Experience

Panic attacks and other over-aroused states are vestiges of responses acquired far back in evolution, but retained by the human brain. They may have usefulness, but are often out of sync with present circumstances. Other maladaptive patterns represent solutions for problems that are no longer relevant or are based on early development, when resources were limited and not optimal for adult life.

Psychotherapy Targets *Subunits* of Pathology

While DSM “disorders” represent important groupings of symptoms, the term “**Entrenched Maladaptive Pattern**” (EMP) is proposed for the subunits of pathology targeted specifically in psychotherapy. For therapists, a narrow focus on these subunits helps to identify what features they have in common and the universal mechanisms by which they can change.

EMPs are products of the mind manifested as:

Action **Feeling** **Thought**

Relating **Bodily Regulation**

EMPs (Entrenched Maladaptive Patterns) start out as ways of coping, usually with threats or unmet needs, and become resistant to change (entrenched) so they don’t resolve spontaneously. Some, like anxiety, are products of evolution. Many are influenced by biological proclivities. Those that are learned tend to reflect the resources available at the time. Some responses are inherently dysfunctional such as catastrophic loss of control and paranoia. Others may be well adapted to early life conditions, but dysfunctional in the context of the later adult environment. Some, like addiction, may first appear later in development. Non-response can also be an adaptation and can retard healthy development.

These patterns are encoded in neural networks and neural pathways. In the next section, we examine three known mechanisms by which maladaptive patterns can be modified or traded for healthier ones at the level of the neural networks and synapses, where they are maintained.

Common Features of EMPs

- Triggered by core (subcortical) emotions which *may* be manifested consciously as *affects* (emotion +bodily changes)
- Include patterns of appraisal of internal and external inputs
- Include patterns of response aimed at suppressing the core emotion
- Stored in neural networks defined by synapses

Three Change Mechanisms

1. New Learning

New, healthier or more satisfactory patterns of response can replace maladaptive patterns or fill in missing skills and areas of development.



2. Extinction Via Cortical Inhibition

Learning in the cortex can trigger inhibitory signals sent to the limbic areas where maladaptive patterns are triggered. In this way, a dysfunctional response can be prevented from being manifested. Called Extinction, it is one of the mechanisms of exposure therapy. Unfortunately, it is not permanent, and requires maintenance.



3. Memory Reconsolidation

In 2000, K. Nader et al. elucidated memory reconsolidation, a means of updating already existing neural pathways with new, surprising information we might call an “antidote.” When established pathways such as learned fear are activated and information they represent is contradicted (prediction error), for a few hours, synapses can be updated with the new information. Unlike extinction, the change is permanent and does not require effort to maintain.



a. When emotion is the “antidote”

Especially in trauma, the maladaptive pattern may consist of dread and avoidance of painful emotions, where there is no longer a reason to be afraid. Here the corrective information may be the feeling of safety in the therapeutic relationship.

b. When cognition is the “antidote”

Other maladaptive responses may involve patterns for interpreting or responding, i.e. “One must be perfect to be lovable.” Here the corrective information can be in the form of cognition, i.e. a new idea or nonverbal model (schema).

Requirements for the 3 Change Mechanisms

The Corrective Emotional Experience (CEE)



Alexander and French described a core experience in therapy which corresponds to both Extinction and Memory Reconsolidation. It is when the client's emotional expectations come to the surface, but are contradicted by what actually happens in the therapy. We can guide therapy to bring about these same two conditions, described more fully in Requirements #1 and #2 below.

Requirement #1: Activate the old pattern with affect.

Both Extinction and Memory Reconsolidation (see previous page) start with reactivation of the old Entrenched Maladaptive Pattern. All therapies have ways to trigger reactivation, usually through interpersonal interaction or various kinds of exploration. Without affect (emotion + bodily changes), this activation does not reach the limbic system and is not effective.

Requirement #2: Exposure to New, Surprising Information

We might call this the "Antidote" to the old, unhealthy EMP. Again, both Extinction and Memory Reconsolidation require exposure to surprising new information that contradicts the old EMP. This creates what neurophysiologists call "prediction error," which triggers a time of destabilization of old memory. The old pattern is replaced by a new, healthier response.

Note that where there is no unhealthy pattern to replace, neither Extinction, nor Memory Reconsolidation may be necessary. All that is required is to learn and practice healthier new skills and information.

Four Facilitative Factors



The work of change is often hard. “Entrenched” means that the instinctive mind may see change as a threat and find ways to resist even positive change. Tension, between wanting to change and instinctively holding back, calls for support. Every therapy has ways of providing it in the following four distinct areas: *arousal regulation, motivation, safety, and relationship*, described below.

1. Arousal Regulation

The brain is adapted to respond to emergencies by shutting down advanced cognitive abilities in favor of rapid response. When clients are over or under aroused, regulation is needed before healing and growth can take place. Techniques derived from Eastern practices have recently been adopted but the therapeutic relationship is also a powerful regulator.



2. Motivation

Being a client is sometimes daunting. Whether explicit or not, every therapy and every therapist has ways to encourage clients to keep going. Supporting anticipation of a positive outcome (commonly known as hope) is one example, and the persistent optimism of the therapist is another support for motivation.



3. Safety

Safety is the responsibility of the therapist, to avoid undue danger and to be sure of informed consent when risk is inevitable. One way to formulate the rule is to avoid making or implying promises that may not be kept.



4. Relationship

A well maintained therapeutic relationship is a multi-purpose tool. It contributes to all three change mechanisms, as well as each of the three facilitative factors described above.



Eight Tasks Therapists Perform

At any one moment, therapists are focused on one of the tasks below. Together they fulfill requirements for the three change processes and support the four facilitative factors.

1. They establish and maintain a **positive** and **safe** working alliance focused on trading maladaptive patterns for healthier ones and providing corrective experience for distorted relating.



2. They seek to **understand** their client's EMPs from a multidimensional framework, including how the pattern is triggered, what keeps it "entrenched," and what will be required to discover a better pattern and foster change.

3. They support client **awareness** (with affect) of unhealthy patterns (EMPs) and help clients discover healthier, more satisfactory patterns, thus fulfilling requirements for the three change mechanisms.



4. They support **motivation** to experience uncomfortable feelings, try new behaviors, and to do the sometimes hard work of change.

5. When needed, they help clients **regulate** their level of arousal within an optimal window.



6. They help clients **heal** (process or detoxify) specific troublesome triggering emotions related to threatening circumstances (See change mechanism 3-a on page 5).

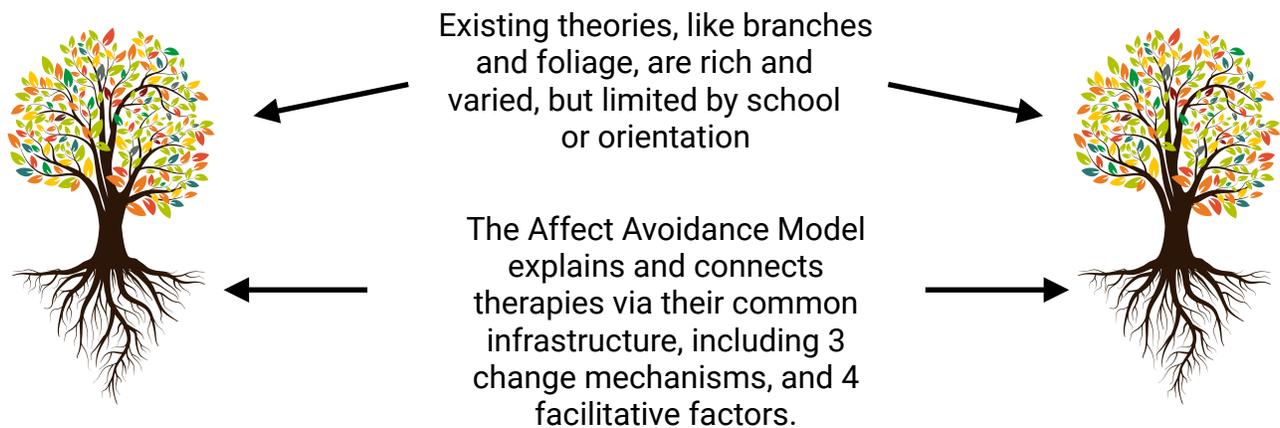
7. They support voluntary change of **thought, behavior, and values**. Usually starting with conviction that change is needed, practice and formation of new habits are commonly part of removing barriers to change and consolidating new patterns.



8. They work with **parts** of the personality (ego states) that are purposeful and exhibit problem solving strategies (EMPs) from earlier in development compared with the adult client. These may be recognized by unusually intense emotions and childlike cognition and responses.

How this “Affect Avoidance Model” relates to existing theories:

Affect is the therapist’s window on those core emotions that trigger EMPs. For the clinician, EMPs are responses aimed at avoidance of predicted troublesome affects.



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Additional Materials:

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