

# PACT

## Psychobiological Approach to Couples Therapy *Part 1*

by Stan Tatkin

September 2020

Despite tons of research, it should be obvious to most adult minds that basic human nature can be problematic.

## FEATURE

This article discusses the prevalence of one-person psychological thinking in the insecurely attached population that comes to couple therapy. I also discuss matters around poor therapeutic alliance with *insecures*: those suffering from personality disorders and unresolved trauma histories. I tie this into brain areas that are known to strengthen executive areas and known to be more cognitive and most related to doing the right thing, which is to say, delay gratification for something better. I also discuss how the dopaminergic and GABAergic reward circuit influence other executive brain structures and how these executive structures may contribute to acting-out behaviors that drive partners to do what feels better at the cost of getting better.

## INTRODUCTION

For years, all forms of psychotherapy have avoided the matter of social justice as part of social emotional development. Lawrence Kohlberg's moral developmental stages, based on Piaget's cognitive scale, attempted to parse an individual's moral development by giving them moral stress tests to determine their upper level of moral reasoning (Kohlberg, 1971). Kohlberg, along with Carol Gilligan and their students at Harvard, famously analyzed public figures according to their moral level of reasoning based on their past and current public record. Of particular interest were leaders and influencers in fields of medicine, education, law, government, and law enforcement. Matters involving right to life, right to die, racial profiling, individual rights, and so on, would be examined and

scored based on an authority's ability ethical and moral reasoning and behavior.

Kohlberg based his thinking on the philosophical ethics of Immanuel Kant and John Rawls (Kohlberg, 1974). Rawls, who wrote extensively on social contract theory and justice as fairness, paved the way for modern social, political, and even relational ethics, to which this paper addresses (Rawls, 1958, 1999). Equally, if not more influential, was the seminal work of Ivan Boszormenyi-Nagy (1996; 1973), a Hungarian-American psychiatrist and one of the founders of the field of family therapy. Boszormenyi-Nagy integrated relational ethics into family systems theory and his contextual therapy approach (Boszormenyi-Nagy, 1996). He endeavored to show that invisible loyalties in families often led to childhood experiences of injustices. Like revolving ledgers of unfairness, these children would later seek payback



Photo by freestocks on Unsplash

in future relationships. In other words, family injustices become society's burden.

I look at a remedy for what may be missing in couple therapy: social justice. Couple therapy approaches, to date, do not expect partners to co-create an overarching container, purpose, shared meaning or vision, nor co-create guardrails that ensure partners remain fair, just, and sensitive in their dealings with one another. Overarching ideas, big ideas that address questions, such as why we are together, what or who we serve, what our purpose is as a couple, are, I believe, central to the successful treatment within couple therapy.

Along with a big idea that drives shared purpose, vision, and meaning, comes the notion of shared principles of governance based on realities of life, stresses, and the human condition as we mostly do the wrong thing when it suits us.

Though this approach is distinctly aimed at implicit, somatic systems within and between partners, the couple's "big idea" – be it a shared purpose, shared mythology, or shared meaning – forms the explicit container within which both therapist and couple can create and maintain a therapeutic alliance and meet the therapeutic expectation and goal.

This article focuses on a particular way of working with couples. Starting with the therapeutic expectation, or "big idea," as described here and throughout this article, therapists drive a top-down narrative, implicitly and explicitly, whereby partners are expected to a) be in reality, consider the future, co-create a container that is their relationship, b) have a shared purpose and meaning, and c) create guardrails that guarantee fairness, justice, sen-

sitivity, collaboration, and cooperation among two individuals who share power. This, as will be discussed later, is the therapeutic expectation or goal that the couple is required to meet.

Under this pressure or expectation, the therapist is able to view in stark relief the developmental barriers against self-activation, reliance on a reality ego, ability to orient to a two-person psychological system, and other factors, including developmental neurobiological deficits. With this therapeutic stance or goal, the therapist is able to maintain continuous pressure and stress on the couple system to perform in an individuated, complex, fully mutual, and adaptive manner.

Built into this expectation is that partners are truthful, forthright, transparent, fully present, and interactive. They must be focused on the task of therapy, which is to work on their relationship and not on each other. Therapists view this therapeutic goal, which will be described later as *secure functioning*, and convey it to the couple as the only system that can ensure a long-lasting relationship without the accumulation of threat and resentment.

Before proceeding, it might make things easier to name the approach to which I'll be referring throughout this article. At the risk of promoting a brand, which I am not, this approach was originally termed A Psychobiological Approach to Couple Therapy and has since abbreviated to PACT. I will henceforth use PACT to denote this approach for simplicity sake. Having said that, PACT by no means represents a cloistered set of gurus, clinicians, or dogma. The name refers to an ever-developing field of study and practice that is, to a large extent, open-source and intended to contribute to an



already expanding field of knowledge in the psychotherapy community.

### PREDICTORS OF RELATIONSHIP DISSOLUTION

From this particularly psychobiological vantagepoint, adult romantic attachment relationships fail over time for a variety of predictable reasons. On a nervous system level, partners who function poorly as a regulatory team – in their management of exciting, quiet and, most importantly, distress states – will run aground. Partners who are not good at co-regulation eventually fail due to mismanagement of state changes, particularly those involving distress and threat perception.

Along similar lines are tendencies for all attachment systems to accrue various amplitudes

of threat memories through historical memory around dependency relationships in early childhood and later life (Tatkin, 2018). Current attachment relationships are equally likely to reanimate old memories of attachment injury. Another predictor of relationship failure is active insecure attachment organization in and among adult partners who remain burdened by dependency fears stemming from unrepaired attachment relationships. These individuals, similar to all those with developmental delays (poor individuation, differentiation, object constancy), replicate the very same unfairness, injustice, and insensitivity in their current attachment relationships. We call these orientations *one-person psychological systems*. They place pro-self values over relationship and defend against interdependency and mutuality.

These insecurely attached partners are pre-



Photo by Fred Moon on Unsplash

dicted to disrupt the couple system's safety and security through repeated interactions that are non-collaborative and non-cooperative, creating resentment and interpersonal threat. A variety of individual factors affect each partner, such as developmental, intellectual, and social-emotional capacity, brain hierarchical error-correction, neuroendocrine regulatory function, life experience. Depending upon these and other important factors, such as physical health and trauma history, insecure partners can inadvertently destroy their relationship through burgeoning threat cascading toward massive mutual dysregulation, a biological condition that is extremely difficult to undo. This matter of threat perception – part of the human primate's nature state – is so ubiquitous and inescapable that all people must be alert and conscientious.

*Threat* here should not be confused with outward threats of physical harm. I refer rather to small “t” threats, such as the kind we experience on a daily basis by way of our perceptions and interpretations of negatively valenced behaviors by others – through facial expressions, gestures, postures, movements, vocal sounds or utterances, and certain words or phrases. Small “t” threat is always present in the environment depending upon the receiver's state of mind, memory, social context, and a multitude of other variables. Threat perception is phenomenological and intersubjective and cannot be judged as objective reality, particularly among partners in a couple. Several other predictors of relationship failure, most threat-related, pertain to partner betrayal of trust, a subject too vast for this article.

Through the lens of this model, fundamen-

tal interpersonal problems involving relationship insecurity and unsafety are, almost entirely, in partner explicit and implicit interaction. Through detailed examination of a couple's interactions during moments of stress, distress, and non-distress, interactive errors can be small or large, yet they are repeated in all scenarios involving similar state changes within and between partners. These errors result in misattuned moments that sustain without error-correction or repair. They contribute to threat perception, defensive behaviors, increased error rates of appraisal, and increased psychobiological threat. Unrepaired perceived misunderstandings, injuries, or injustices, if intense and sustained and without quick relief, lead to event-related long-term memory formation in both partners and are predicted to repeat in future encounters. Threat memories repeat during other interactions, even those unrelated to the original event.

To effectively track these interactions, a trained, relaxed, and alert therapist pays continuous attention to each partner's immediate moment-by-moment somatic reactions to each other and to the therapist. Partner microexpressions, micromovements, and somatic shifts are the primary objects of therapist observation during partner interaction. Additionally, the therapist carefully observes and analyzes linguistic “tells” that support somatic markers.

These tells alert the therapist by way of their own countertransference somatic reactions to irregularities in partner narrative coherence, collaboration, and verbal/non-verbal signs of deception. The psychobiologically-oriented couple therapist looks for partners in the spaces between words, phrases, and movements.

They strive to catch partners in the act of being themselves. The typical conflict content areas – money, time, messiness, sex, kids – become background to implicit material gained through nonverbal means of data gathering. We consider partner narrative, partner self-report, partner declarations of intention, motivation, theories of causation, and explanations for relationship discontent to be the least reliable part of data collection. Therapist, as audience member, observes partner interaction for lengthy periods to study linguistic and somatic micro-behaviors played out and uninterrupted as if watching a play or observing animals interacting.

The approach discussed in this article is a psychobiological, nonlinear, poly-theoretic lens through which to view human social-emotional development and function, beginning from pre- and post-natal epochs and continuing throughout the lifespan. The model is based on social-emotional capacity, as shaped by neurobiological, environmental, and genetic influences. Before getting into this psychobiological approach to couple therapy, let's first discuss challenges the couple therapist must face when

working in a developmental capacity model of therapy.

## THE HUMAN CONDITION AND BRAIN ERROR POTENTIALS

To ground both partners' expectations, the couple therapist must come to understand certain realities of how various brain functions can be advantageous to certain life circumstances and disastrous to others. Equally important is knowledge and acceptance of the human condition, in all its magnificent and disappointing aspects. Both therapist and couple must understand the features and the bugs, so to speak. Partners who do not understand this will continue to attack each other for no reason and fail to understand the brain's error potentials that affect all human beings on the planet. First, consider the notion that human interaction is one of the most complex and challenging things we'll ever do. No individual is easy, particularly in primary attachment relationships. All people are perfectly imperfect, disappointing in some manner, and frustrating. With that in mind, let's look at where couples go from there.



Photo by Alex Iby on Unsplash

## THE SCRAPPY HUMAN PRIMATE

Despite tons of research, it should be obvious to most adult minds that basic human nature can be problematic. I am not talking about an individual's personality structure, attachment organization, or pathology. Just the species itself – *Homo sapiens*. As a species, throughout our entire history, we are, by nature, aggressive, warlike, selfish and self-centered, moody, fickle, opportunistic, easily influenced by others, always comparing and contrasting, always aware of what is missing, and racist and xenophobic – and all of it wired in (Fletcher, Simpson, Campbell, & Overall, 2015; Harari, 2014; Sapolsky, 2017). Like it or not, this seems to be our heritage, and very little has changed since our beginnings. We may judge our nature to be good or bad, but nature doesn't. Nature is indifferent and amoral. The human primate is a messy animal, tilted more toward war than love, particularly when threatened.

## THE BRAIN'S ERROR POTENTIALS

Human verbal communication is highly error prone. When it comes to commands, such as “stop,” “go,” “wait,” “sit,” “eat,” “run,” human verbal communication should run smoothly. However, beyond the one-or two-word commands from which our language evolved, there can and will be trouble. For one thing, a phenomenology particular to an individual's word choice, meaning, and context opens the possibility of misunderstanding. Add the brain's tendency to take shortcuts, and we're off to the races. Consider still the implicit or nonverbal conveyances through the face,

voice, movements, gestures, posture and, for good measure, each individual's current mental/emotional state all affect appraisal of words and phrases.

Memory is unreliable. Partners commonly argue over memory – and both are likely incorrect. To begin with, our recording of experience into memory is dependent on a multitude of internal and external factors (Garrett, Grady, & Hasher, 2010; Nadel, Payne, & Jacobs, 2002; Sapolsky, 2018). Recorded experience, along with memory formation, includes the brain's tendency to fill in blanks, confabulate, conflate data, decontextualize subject matter, and embellish with emotion. With each recall of events, memory again changes according to state of mind, body, and current experience. With couples in distress, matters worsen with the presence of glucocorticoids and their effect on hippocampal, amygdala, anterior cingulate, and prefrontal cortex function. In these instances, partners are unable to properly sequence and contextualize events. Why might partners choose their memories as the hill on which to fight to the death? One explanation may be the strong relationship between one's memory and one's sense of self (Lin, 2018).

Memory and state are interlinked – meaning, current state influences memory; memory influences current state of mind and body; and state of mind then alters sensory perception like a funhouse mirror. What one sees, hears, smells, tastes, and touches, is greatly modified by state of mind. This final line of reasoning



is exceedingly relevant in matters of distress and threat perception.

### **AUTOMATIC BRAIN**

Procedural memory is known to be “cheap” because subcortical systems require less oxygen and glucose to operate than do higher cortical areas. Procedural memory is considered extremely fast and associated with recognition systems that respond subcortically to manage instant functions, such as those that would be lifesaving. Because partners automate each other in and around the latter phases of courtship, novelty-seeking functions of the brain turn elsewhere as the relationship begins to rely more heavily on memory and recognition and not on presence and attention.

Everything new is bound to become old in relative short order. Automation leads to the cessation of presence and attention between partners and a significant increase in partners error rates in communication, perception, and attribution. It begins to elevate memories of dependency injuries in the attachment experiences of childhood. The brain’s ability to immediately parse past from present, this person to that person, is compromised by the expediency of the right hemisphere and subcortical regions of the brain. When under threat or perceived threat, partners are more likely to shoot first and ask questions later.

Nonetheless, though the human primate is saddled with an automatic brain that is memory-based, reflexive, blessed and cursed with lightning-fast recognition systems that keep us alive, we are not necessarily able to keep our relationships intact with the same autonomy.

### **NEGATIVITY BIAS**

The human brain’s emotional negativity bias is well known and affects human interaction of all kinds (Braund, Palmer, Tillman, Hanna, & Gordon, 2019; Ito, Larsen, Smith, & Cacioppo, 1998; Jing-Schmidt, 2007; Kiley Hamlin, Wynn, & Bloom, 2010; Lilienfeld & Lutzman, 2014; Rozin & Royzman, 2001; Vaish, Grossmann, & Woodward, 2008). A hardwired human negativity bias makes good sense if one accepts the idea that survival of the organism, not to mention the species, depends on excellent threat detection and danger avoidance. In the absence of positive information, we are more likely to make negative attributions. A good example of this is the tendency to misinterpret a shy stranger’s behavior for that of unfriendliness, arrogance, or disdain. Partners who are conflict-avoidant, under-expressive, and under-communicative encounter their partner’s negativity bias along with the brain’s penchant for filling in blanks. We remember negative experiences more readily than positive ones, ostensibly because we must remember what or whom we should not revisit. Undoubtedly, the brain’s negativity bias plays a considerable role in accrued psychobiological threat experiences that lead to degradation of a couple’s safety and security system (Coyle, 2018; Norris, Leaf, & Fenn, 2019).

### **EXECUTIVE SYSTEMS**

Interestingly, psychologist and neuroscience researcher and author, Lou Cozolino, considers the amygdala, along with the default mode network and posterior parietal regions, as one of brain’s three executive systems (Cozoli-

no, 2017).

The psychobiologically-oriented couple therapist is keenly aware of the amygdala's role in threat detection and its seminal role in the survival of the organism specifically and of the species in general. PACT focuses on the role threat plays in day-to-day life and in many daily interactions with one's primary attachment partner. As Cozolino (2002) puts it, "Therapists really want to be amygdala whisperers..." (p. 18), and the couple therapist wants each partner to quickly become experts in the critical areas of conflict management, distress relief, and their own couple safety and security system. In fact, one of the best predictors of relationship failure is partner incompetence at rapidly shifting the other's threat state to one of safety.

The amygdala holds considerable sway over the entire brain. Unlike other brain structures, it can take shortcuts necessary for survival. Like all brain features, each have features, and each have bugs. For instance, amygdala shortcuts are extremely important for acting at lightning speeds to save one's life. That's a feature. However, this very same feature is a bug when it comes to shooting first and asking questions later, literally. It's the classic tragedy of a police officer shooting someone of color because they mistook a wallet for a gun. I add 'of color' because the amygdala, as well as other brain structures, are heavily biased in terms of who is like me and who is not like me - the other. The human primate, by nature, is xenophobic and racist. This is not a value judgment. Fortunately, society has value judgments about racism and xenophobia. Nature does not. The human primate is famously biased against those perceived as others. *The other* is understood to be

like that kindred fan of the same baseball team, and both others and *familiars*, those we know personally, can change on a dime depending upon environmental context. This bias is enhanced not only by the pre-wiring of the brain but also of environment, especially that of early family environment and social attitudes.

Contextually, the current environment is an important determinant as well. This required nature of ours is also augmented by hormones, such as oxytocin. Oxytocin may lead me to be extremely helpful, compassionate, and selfless with a familiar in distress, but if I'm the least bit threatened by someone, I will also be less compassionate, forgiving, gracious, and empathic. This is due to the presence of glucocorticoids coursing through my brain. Even the smallest presence of glucocorticoids is known to alter the functions of the hippocampus, anterior cingulate cortex (ACC), and the prefrontal cortex (PFC).

Amygdala function goes unchecked at all times and can be amplified in memory without PFC and ACC error correction and fear extinction. So many variables, in fact, go into doing the wrong thing when the wrong thing feels good or feels safer. Parsing the exact cause of any behavior in any one moment is difficult, given the confluence of environmental stressors, early developmental and environmental adaptations, genetics, current mental and physical states, empty versus full stomachs, sleep hygiene... The list of disruptors is long. As primatologist and neuroscientist Robert Sapolsky brilliantly states in *Behave: The biology of humans at our best and worst* (2017), any act of aggression or defensive behavior is determined by what happened a minute before, days,

weeks, months, and years before, even going back to the beginning of one's life.

The executive function I speak of here is the integration and ongoing tension between the emotionally based executive, the ventromedial prefrontal cortex (vmPFC), and the more cognitively based executive, dorsolateral prefrontal cortex (dlPFC). At the risk of oversimplification, these areas along with the anterior cingulate, posterior cingulate, temporal parietal junction, temporal pole, interior insula, and hippocampal components are essential for error-correction and the capacity to repair misunderstandings and injuries. These areas are vital for co-regulation of distress and threat reduction.

This also brings to the forefront the matter of purpose over feeling. The notion of purpose can generally be ascribed to the dlPFC among other structures. The matter of feeling can be

ascribed to the vmPFC and the orbital frontal cortex as well as other limbic structures. While both are essential for navigating the complexity of human relationships, doing the right thing when it's the hardest thing to do requires a predominance of certain structures over others.

Doing the right thing is not reflexive and may not be the first thing a person does practically when under stress. But we can expect it to be the second thing. Therefore, the only thing that might elevate us above the natural, the basest of our humanness, is to put our attention on purpose-centered principles that can help navigate us and hold us to prosocial behaviors. Pro-self is our nature state. It is what we will always go to when we are under threat – and threat is a daily experience, ranging from the most subliminal experience to the most gross and horrific.



Photo by Claudia Wolff on Unsplash

By placing the couple in a container from the onset of couple therapy, or shortly thereafter, the PACT therapist points them to shared purpose, shared vision, or if you prefer, shared mythology, which includes meaning and elevates them to something greater than the individuals who comprise the system. In PACT, therapists set the stage for complexity, object constancy, impulse control, frustration tolerance, and the capacity to create a secure-functioning environment that can, finally, create the resourced milieu essential for the couple's development to continue.

## THE BIG IDEA

I would argue that couple therapy is not suited for nondirective forms of therapeutic approaches. The therapist only has a short time to work with the couple before they break up or, worse, harm one another. Therefore, the therapist can expect certain behaviors, but those behaviors must make sense and be coherent within a larger frame. In other words, the therapist should have an architecture in mind that gives meaning, purpose, and vision to the couple to build guardrails that keep behavior constructively based on a big idea that the couple buys into. This is the shared mythology the therapist must create.

That is the overarching container of this approach – partner's shared purpose as a couple, and the shared meaning and vision they co-create. Containers are necessary for therapists to study a process, organize a complex set of variables, and focus on completing a task. Containers provide a concentrated field free of distracting elements and restrict outside contaminants

and internal leakages that would negatively affect understanding and outcome.

## PURPOSE, MISSION, VISION

Based on attachment and social justice theory, *secure functioning* is a social justice system whereby partners adhere to principles of fairness, justice, and sensitivity along with collaboration and cooperation (Solomon & Tatkin, 2010; Tatkin, 2012). It informs how partners are going to protect themselves from each other. Secure-functioning partners view themselves as fully individuated, differentiated, autonomous individuals who accept each other's imperfections and think in terms of "good enough" and not "perfect." They are joined by purpose first, feeling second.

They accept each other as burdens. They accept each other's past and accept responsibility for each partner's past as it appears in the present moment. They view each other as in each other's care and not their own by focusing on the other, finding the infant in the other, and being experts on the other.

We might think of the secure-functioning couple as each other's whispers. They're good at one another, fearless, competent, and use attraction, persuasion, influence, seduction, bargaining, and negotiation instead of fear, threat, or guilt. They operate as a two-person psychological system, sharing power, committing to full transparency, and other principles of governance that ensure safety even during times of stress and distress. We believe that secure-functioning couples are able to handle high levels of loadbearing as differentiated from insecure functioning couples. Because they are



purpose driven, they hold principles and ideas of behavior that are independent of feeling and fluctuating states.

## THERAPEUTIC EXPECTATION

Secure functioning, the therapeutic goal, is inconsistent with deceptive behavior, substance and behavioral addiction, all forms of abusiveness, codependency, acting out, cheating, and other behaviors commonly thought of as destructive to relationship. As a result, the couple therapist is relieved of taking a moral stance since secure functioning does not have to do with these behaviors but rather has to do with if and how these behaviors interfere with fairness and sensitivity in the couple system as expressed solely through partner complaints.

The goal of secure functioning is to reduce acute and chronic interpersonal stress resulting in allostatic load<sup>1</sup> and the accumulation of psychobiological threat. The couple system is viewed as an interdependent entity of autonomous individuals who must forge appropriate and reliable social contracts that rely on principles and purpose rather than self-determined (non-mutual) relationship values. The couple is also viewed as a fully capable, fully differentiated set of autonomous individuals who are expected to do the right thing (as agreed upon) in service of both personal and mutual good.

Secure functioning requires the couple to fully be in reality and employing a reality ego rather than a pleasure-seeking or pain-avoiding ego to defend against perceived or anticipated losses. To achieve this, the couple understands that they must view the relationship as a two-person psychological system, whereby

<sup>1</sup> Allostatic load is the accumulated wear and tear on four major systems due to chronic stress. Those systems are cardiovascular, autoimmune, inflammation, and metabolic.

each partner is in the other's care as mutual stakeholders and stewards of their safety and security system.

These couples understand that their union, if based on a shared vision, purpose, and shared principles of mutual governance, are bound by agreements that serve both interests and protect partners from each other's tendencies to feel good at the cost of being good in the relationship. This approach is purpose- and character-driven, requiring partners to accept the realities of human relationships, including the ideas that partners can only be good enough and never perfect and that all people are difficult and disappointing. Secure functioning requires partners, if they buy into this idea, to think on a higher level, which provides a container, as mentioned, for the therapist to understand all the obstacles that will emerge under this pressure to be secure functioning. In a nutshell, that is the entire big container, or big idea, of this treatment.

## A PSYCHOBIOLOGICAL APPROACH

Under the hood, it's quite another story. In a psychobiological approach, we observe partners as infants on a developmental trajectory, whether we are looking at personality theory or attachment science. The same is true whether looking at relational trauma or PTSD. Either way, with the therapeutic narrative or goal, the therapist continues to insist and expect that the couple behave in a secure-functioning manner. This method should be distinctly recognizable by those familiar with American object relations and ego psychology.

The approach discussed in this article is a psychobiological, nonlinear, poly-theoretic lens

through which to view human social-emotional development and function, beginning from pre- and post-natal epochs and continuing throughout the lifespan. The model is based on social-emotional capacity, as shaped by neurobiological, environmental, and genetic influences. Before getting into this psychobiological approach to couple therapy, let's first discuss challenges the couple therapist must face when working in a developmental capacity model of therapy. The approach developed over many years of study with my mentor, Allan Schore (Schore, 1994), and was greatly influenced by his work. PACT is also influenced by a great many thought leaders, science writers, and clinical researchers such as James Masterson, Jaak Panksepp, Stephen Porges, Carl Whittaker, Salvador Minuchin, Peter Levine, Dan Siegel, Lou Cozolino, Beatrice Beebe, Mary Main,

Jeffrey Zeig, Ivan Boszormenyi-Nagy, Donald Winnicott, Otto Kernberg, Ed Tronick, Marion Solomon, John Gottman, Pat Ogden, Paul Ekman, Helen Fisher, and a great many others. PACT, in fact, combines various methods as part of its larger ethic and therapeutic goal of secure functioning. We use infant and adult attachment models, personality theory, arousal regulation theory, strategic and structural family systems, psychodrama, somatic body tracking, Ericksonian limited trance, developmental neuroscience, social justice theory, psychoanalytic models such as American object relations, and ego psychology, Paul Ekman's facial action coding system, and other methods to help move couples toward secure functioning.

This particular approach emphasizes adaptation and reality over maladaptive, self-harming defensive behaviors, such as a partner's



Photo by Priscilla Du Preez on Unsplash

reasons for underperforming. This pressure is necessary to compete with the limited time available for the couple therapist to triage a couple crisis and ensure a better treatment outcome. It also pushes people faster and further in their personal development as the therapist expects secure functioning, which may possibly be out of their reach at the start of therapy.

The therapist's expectation is the driving force for moving the couple toward secure functioning, which at the same time, creates enough stress and distress to maintain interest in the treatment itself. A careful titration of applied therapeutic stress is essential for progress to occur and positive results to be experienced as quickly as possible. More about this therapeutic approach will be explained shortly.

*Psychobiology* is a developmental model based on infant brain development, attachment science, arousal regulation theory, and neurobiological capacity, particularly in the social-emotional realm. In couple therapy, the focus is on social-emotional capacity from a developmental point of view. We view critical periods in early attachment as postnatal to 24 months, while arousal regulation systems and right-brain social emotional development as having critical periods from prenatal to 18 months and more (Chiron et al., 1997; Cozolino, 2013; Mahler, 1979; Masterson, 1981; Ramey & Ramey, 1999; Schore, 1994, 2002, 2015). We also carefully track known brain developmental changes or "upgrades" throughout the lifespan (Champagne & Curley, 2005; Fuhrmann, Knoll, & Blakemore, 2015).



Photo by Victoria Roman on Unsplash



Various deficits in social-emotional functioning may be deemed as hardware, software, or both when a deficit appears in the adult romantic attachment system as a threat to the couple's safety and security. Implicit systems and the tracking of somatic markers as expressed in the face, skin color, striated muscle tensing and loosening, pupil size and movement, gestures, body posture, and vocal prosody, volume, and tempo. The couple therapist is trained to pick up moment-by-moment micro-expressions and micro-movements in partners while at the same time remaining available to sense the couple as a receptive audience member. This receptive stance is critical to the intersubjective experiencing and observation of the couple.

The therapist employs tools and techniques to maintain a continuous visual attention to details in each partner's physicality while at the same time practicing continuous muscular relaxation to maintain an alert yet relaxed state of mind. Dan Siegel's window of tolerance (Ogden, Minton, & Pain, 2006; Siegel, 1999) provides a successful schematic metaphor for remaining in optimal arousal. That is, the therapist remains fully resourced and has adequate oxygen and glucose to run high cortical, error-correcting, and regulating brain structures. Stephen Porges refers to the state as the social engagement system whereby the therapist consciously engages the out breath, vocal prosody, eye contact, and communication efforts as a means to maintain an internal state of safety (Porges, 2011).

\*\*\*

*Editor's Note: Part 2, that will appear in the October issue, addresses the practical application of*

*PACT. Stan Tatkin shares with us a selection of exercise and activities that bring the theoretical framework, established in Part 1, to life.*

## REFERENCES

- Boszormenyi-Nagy, I. (1996). Relational ethics in contextual therapy. *Martin Buber and the human sciences*, 371-382.
- Boszormenyi-Nagy, I., & Spark, G. M. (1973). *Invisible loyalties: Reciprocity in intergenerational family therapy*: Harper & Row.
- Braund, T. A., Palmer, D. M., Tillman, G., Hanna, H., & Gordon, E. (2019). Increased chronic stress predicts greater emotional negativity bias and poorer social skills but not cognitive functioning in healthy adults. *Anxiety, Stress, & Coping*, 32(4), 399-411.
- Champagne, F. A., & Curley, J. P. (2005). How social experiences influence the brain. *Current opinion in neurobiology*, 15(6), 704-709.
- Chiron, C., Jambaque, I., Nabbout, R., Lounes, R., Syrota, A., & Dulac, O. (1997). The right brain hemisphere is dominant in human infants. *Brain: a journal of neurology*, 120(6), 1057-1065.
- Coyle, K. (2018). *The Relation between Conflict Resolution Styles and Marital Satisfaction as Moderated by the Fundamental Attribution Error*: Hofstra University.
- Cozolino, L. (2002). *The neuroscience of psychotherapy: building and rebuilding the human brain (norton series on interpersonal neurobiology)*: WW Norton & Company.
- Cozolino, L. (2013). *The Social Neuroscience of Education: Optimizing Attachment and Learning in the Classroom (The Norton Series on the Social Neuroscience of Education)*: WW Norton & Company.
- Cozolino, L. (2017). *The Neuroscience of Psychotherapy: Healing the Social Brain (Norton Series on Interpersonal Neurobiology)*: WW Norton & Company.
- Fletcher, G. J. O., Simpson, J. A., Campbell, L., & Overall, N. C. (2015). Pair-Bonding, Romantic Love, and Evolution: The Curious Case of Homo sapiens. *Perspectives on Psychological Science*, 10(1), 20-36. doi:10.1177/1745691614561683
- Fuhrmann, D., Knoll, L. J., & Blakemore, S.-J. (2015). Adolescence as a sensitive period of brain development. *Trends in Cognitive Sciences*, 19(10), 558-566.



- Garrett, D. D., Grady, C. L., & Hasher, L. (2010). Everyday memory compensation: the impact of cognitive reserve, subjective memory, and stress. *Psychology and Aging, 25*(1), 74.
- Harari, Y. N. (2014). *Sapiens: A brief history of humankind*: Random House.
- Ito, T. A., Larsen, J. T., Smith, N. K., & Cacioppo, J. T. (1998). Negative information weighs more heavily on the brain: the negativity bias in evaluative categorizations. *Journal of personality and social psychology, 75*(4), 887.
- Jing-Schmidt, Z. (2007). Negativity bias in language: A cognitive-affective model of emotive intensifiers. In: Walter de Gruyter.
- Kiley Hamlin, J., Wynn, K., & Bloom, P. (2010). Three-month-olds show a negativity bias in their social evaluations. *Developmental science, 13*(6), 923-929.
- Kohlberg, L. (1971). Stages of moral development. *Moral education, 1*(51), 23-92.
- Kohlberg, L. (1974). The claim to moral adequacy of a highest stage of moral judgment. *The journal of philosophy, 70*(18), 630-646.
- Lilienfeld, S. O., & Latzman, R. D. (2014). Threat bias, not negativity bias, underpins differences in political ideology. *Behavioral and Brain Sciences, 37*(3), 318-319.
- Lin, Y.-T. (2018). Visual Perspectives in Episodic Memory and the Sense of Self. *Frontiers in psychology, 9*, 2196.
- Mahler, M. S. (1979). *Separation-individuation*. New York, NY: J. Aronson.
- Masterson, J. F. (1981). *The narcissistic and borderline disorders: an integrated developmental approach*. Larchmont, N.Y.: Brunner/Mazel.
- Nadel, L., Payne, J., & Jacobs, W. J. (2002). The relationship between episodic memory and context: Clues from memory errors made while under stress. *Physiological Research, 51*, S3-S12.
- Norris, C. J., Leaf, P. T., & Fenn, K. M. (2019). Negativity bias in false memory: moderation by neuroticism after a delay. *Cognition and Emotion, 33*(4), 737-753.
- Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the body: A sensorimotor approach to psychotherapy* (Hardcover ed.): W. W. Norton & Company.
- Porges, S. W. (2011). *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-regulation*. New York, NY: W. W. Norton & Company.
- Ramey, C. T., & Ramey, S. L. (1999). *Right from Birth: Building Your Child's Foundation for Life. Birth to 18 Months*. Goddard Parenting Guides: ERIC.
- Rawls, J. (1958). Justice as fairness. *The philosophical review, 164*-194.
- Rawls, J. (1999). *A theory of justice*. Cambridge: Belknap Press of Harvard University Press.
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and social psychology review, 5*(4), 296-320.
- Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*: Penguin.
- Sapolsky, R. M. (2018). Doubled-edged swords in the biology of conflict. *Frontiers in psychology, 9*, 2625.
- Schore, A. N. (1994). *Affect regulation and the origin of the self: the neurobiology of emotional development*. Hillsdale, N.J.: L. Erlbaum Associates.
- Schore, A. N. (2002). Dysregulation of the right brain: a fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorder. *Australian and New Zealand Journal of Psychiatry, 36*(1), 9-30. Retrieved from <http://www.blackwell-synergy.com/links/doi/10.1046/j.1440-1614.2002.00996.x/abs>
- Schore, A. N. (2015). *Affect regulation and the origin of the self: The neurobiology of emotional development*: Routledge.
- Siegel, D. (1999). *The developing mind: toward a neurobiology of interpersonal experience*. New York, NY: Guilford Press.
- Solomon, M., & Tatkin, S. (2010). *Love and War in Intimate Relationships: Connection, Disconnection, and Mutual Regulation in Couple Therapy*. New York, NY: W. W. Norton & Company.
- Tatkin, S. (2012). *Wired for Love: How Understanding Your Partner's Brain Can Help You Defuse Conflicts and Spark Intimacy*. Oakland: New Harbinger Publications.
- Tatkin, S. (2018). *We Do: Saying Yes to a Relationship of Depth, True Connection, and Enduring Love*. Colorado: Sounds True.
- Vaish, A., Grossmann, T., & Woodward, A. (2008). Not all emotions are created equal: the negativity bias in social-emotional development. *Psychological bulletin, 134*(3), 383.