

Connected and Safe:

Navigating Threat States in Processwork Couple Therapy

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by

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Abstract

This theoretical research paper explores the role of safety in couples' relationships and investigates how contemporary neurobiology can inform a Processwork-oriented view of working with couples and vice versa.

Is safety opposite threat on a continuum? How necessary is safety? How do we effectively work with edges in the relationship when one partner or both feel unsafe? Is it really unsafe or is it just an edge? Who is responsible for creating safety in a couple relationship? How is safety created? My finding is that safety actually supports edge work with couples, and perhaps all edge work. Safety is a dimension of work with couples that we cannot ignore, and in fact need to pay close attention to.

Here are some of the central ideas that I will discuss in this paper:

- 1) Safety is a neurophysiological state that directly impacts and is impacted by the social experience.
- 2) Processwork acknowledges safety as a process but we don't pay enough attention to the state and how the state should inform our interventions and guide the process. Paying attention to safety states and how they inform the process would enhance our work.
- 3) With couples there are unique challenges to safety but also potential resources. I will discuss the extra considerations and how to work with them.

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Intro

Two people partnering up to pair bond is common and ordinary, but can also be the most intimate, complex, and challenging thing in the world. There is so much still to explore and understand about the dynamic of two people who choose to be partners together. Processwork has given a number of relationship tools, particularly ones to handle conflict between partners, work with family patterns, and articulate purpose of being together. But there is still much territory to explore before we come to more conscious understanding of what it means to be a couple and how to support people to do it. This paper focuses on the specific experiences of safety and threat as they come up within a couple system. I argue that creating safety has to be an integrated fundamental as clinicians work with and support couples.

I am a licensed marriage and family therapist with a private practice focusing on relationships. I've been working with couples for seven years although only as a specialized focus for the last two years. The couples that I work with are made up of same and opposite sex partners as well as those who identify with binary and non-binary gender identities. They have comprised of partners of various ethnic and class backgrounds. As a clinician I have come to appreciate the role of safety as a key element in relationship functioning.

As someone who has participated in various attempts at romantic pair bonding this is a topic that is very personally relevant to me. I long for a guiding blueprint on how to create relationships for myself that are more satisfying than how I have experienced them in the past. It is my hope that the writing of this project will spur deeper interest, understanding, and research about couples and how to support this type of system.

This research project began with an inquiry about why couples, and indeed all people in relationships, become defensive when they communicate. Most people figure out pretty quickly in life that being defensive does not improve the quality of a relationship or connection, and certainly almost all relationship and communication experts warn against defensive styles of communication.¹ Couples researcher John Gottman named defensiveness as one of the four most destructive relationship behaviors along with criticism, contempt, and stonewalling. But we all still get defensive. So what is going on and why is it so hard to not be defensive? And more importantly, what can we do with our defensive tendencies?

My inquiry and research eventually led me to the conclusion that defensiveness is a behavioral expression of a neurobiological threat state. As I present relevant neurobiological research about how these threat states operate I will also extrapolate about the role of safety and how it is needed for relationships to be successful. In order to help couples we need to better understand what is happening with these threat states and help the relationship system navigate them.

The other major component of this paper is informed by Processwork, a multi-modal conceptual framework for therapeutic facilitation. Processwork is a non-pathologizing, meaning-based approach to working with dreaming experiences, including body symptoms. Applied to couples and relationships, Processwork's central facilitation objective remains the same as it is for individuals and groups: to explore experiences

¹ Jack Gibb (1961) initially published an article describing defensiveness in communication between people and the detrimental effects of such a style of communication.

outside of one's core identity and integrate them to promote greater wholeness and flow.

My goal is to bring the neurobiological research on safety and Processwork together. There is a lot that is compatible, and I discuss where this common ground exists, but there are also places where the neurobiological research suggests some important contrasts from Processwork in how safety is viewed and prioritized. In this discussion I hope to demonstrate that in light of compelling research, Processwork methods could be updated in specific ways to deal more effectively with safety in couple dynamics.

Presenting this theoretical and clinical research on working with couples and safety is an exciting moment in several ways. First, nowhere else in the Processwork literature is attention given solely to the aspects of the theory and practice that deal with safety. Taking this specific frame I believe finally gives Processwork its due by acknowledging aspects of its work that have not previously been considered as methods that promote safety. Second, Processwork has sourced its ideas from disciplines as far afield as theoretical physics (Arnold Mindell, 2004) and communication theory (Diamond, n.d.) to describe human behavior, but there has not been much attention given to rules of biology or neurobiology toward understanding our work with people, and in this case, with a focus on couples and relationships.

I want to qualify that this is not a research paper that presents in-depth Processwork theory. There are other books and projects that do a more thorough job with an emphasis on relationships (see Arnold Mindell & Amy Mindell, 2002; Reiss, 2004; Saat, 2011). I am more interested in what Processwork with couples looks like

prevalently in practice as informed by theory, and whether these methods can be supported and furthered enhanced by the study of neurobiology. I do this in spirit of the Processwork principle that a thing does not develop or grow solely by looking at itself from the perspective of itself. Rather at some points in its development it takes getting to know a less known and necessarily radically challenging perspective and integrating it in order to become more whole.

This research project is not meant to have definitive answers for how to integrate safety needs into Processwork relationship practice. But I do hope to present a sound argument for why it is important to consider safety as a core fundamental and offer some guidelines for doing so within the context of Processwork with couples. It's my hope that these guidelines can be further developed and integrated into the broader Processwork model.

Finally, the cases I describe here are composites of my own cases, stories people have told me, and work I have witnessed other facilitate over the years. Names are made up and identifying information does not correspond to actual people. This is necessary to protect identities and privacy.

What is a Couple?

During the exploration of this project I had to establish some basic assumptions about what it means to be a couple, both demographically and philosophically. For the purposes of this paper a couple is defined as the system that is created by two people whose lives are interconnected to a large degree either substantively or subjectively and have the primary intention to operate jointly in important realms of their lives. These two

people can be of any sexual or gender identity. Often couple relationships involve cohabitation, romance, sex, and sometimes child rearing. But there is great variance in the specific permutations of how couples choose to structure their lives together. Many romantic relationships carry on without children. Some couple unions are not particularly romantic and/or sexual. But what characterizes them as couples is the deeply interconnected involvement that two people have in one another's lives, both in practical and subjective terms.

This type of relationship system has the potential to meet an individual's social, physical, emotional, spiritual, and/or psychological needs. While there is no formula, and the people in each couple determine what is desirable to want and possible to achieve within the relationship system, there is no doubt that pair bonding with someone has the potential to create a system that is the source of ongoing support, safety, and novel experiences and possibility. Many hold some vision of this. And as a society we have historically valued, idealized, and rewarded coupling over remaining single.

However, many people move beyond the cocktail of initial chemistry and attraction and find the tantalizing promise of a deeply satisfying, secure, and enriching relationship just falls short. Relationships are hard at times. Our partners trigger our deep insecurities and we trigger theirs. We experience excruciating hurt in relationships and sometimes don't know how to fully recover from them even as we move forward and back to the original dreamy vision of coupling.

There are also many different ways that two people can consort intimately with one another. Some of these intimate relationships are characterized by emotional bonds,

romance, sex, and/or ritual. Relationships span from having one or some of these characteristics with varying levels of intensity. On the more casual spectrum people nowadays hook up, “talk”, “Netflix and chill”, have “friends with benefits”, etc. This speaks to the fluidity and varying texture of human experience and relationships.

Processwork has tools for supporting all kinds of relationships, particularly in their fluidity. This project however, goes into the specific characteristics of relationships between partners who choose to be couples. I aim to highlight the unique issues and challenges that come up and explore important ways that couplehood can be supported.

Ideas on Safety and Couple Work

In many therapeutic paradigms for couple work, safety as a concept has received widespread acceptance as an important aspect of working with couples. Sue Johnson, co-creator of Emotionally Focused Therapy for Couples (EFT-C) asserts that the goal of couple therapy is for therapists to provide couples with a sense of safety and build a sense of security between partners (Johnson, 2004). Elyn Bader Pearson describes the importance of guarding couples from re-traumatizing one another (Bader Pearson & Pearson, 2009). Harville Hendrix (2008) names safety as the number one precondition for connection. According to him, two people cannot connect if they are defending themselves against a barrage of negativity or if they live in fear of being abandoned or overwhelmed by their partners. Finally, Stan Tatkin (2011) stresses the need for couples to co-regulate fear and stress states.

Some of these authors also cite trauma, neuroscience, and attachment theory as key areas of research that reinforce the importance of safety.

Safety in Processwork

Processwork is a relatively young paradigm that is also very ambitious in its scope. As such the theory has not yet had the time to fully develop in its breadth and depth. Processwork has some strong organizing principles, but when it comes to applying those core organizing principles to the areas in which it operates (individual work, relationship work, organizational work, large group work), there is still much active development of the details and nuances. Ideas around safety have entered into the conversation over the years and the paradigm has actively developed tools and basic principles to address safety in numerous ways.

But despite Processwork's basic principles and plethora of tools supporting safety, my experience has been that I've wanted to see more emphasis on safety in the relationship work that I have been a part of or witnessed. For all the awe and inspiration that I experienced by way of Processwork during workshops, classes, conferences, and events, I continued to have the nagging feeling that we need to understand safety better. In some of these instances when people have asked about safety I've heard Processwork teachers even ask, "What is safety, anyway?"

Assessing how Processwork theory exactly views safety and couples is at once simple and difficult. One difficulty is that the word "safety" is not commonly part of the nomenclature of Processwork texts. This does not mean that safety is not important, as support for safety permeates the paradigm. But it does require quite a bit of piecing together and finding the threads through theory and practice.

Part II of this paper attempts to find these threads and validate how Processwork

theory and practice engages safety through the lens of psychobiology. In this section I also offer a criticism about what is missing and how this impacts the effectiveness of the work we do with couples. I will also engage in some ideas about how we can learn from neuroscience to support safety in Processwork relationship work.

Thanks to the study of neurobiology, safety is better understood now in its social and relational context than it has ever been in the past. I hope we can use an updated understanding of safety as a state of mind and body to make Processwork methods more effective with couples.

What is the role of the couple therapist?

As a couple therapist, I support a system made up of two people and the integrity of that system. At the heart of it couple therapists help partners have growing and changing awareness of themselves, their partners, and the functioning of their system. As a couple therapist I respect all actors and parts within the system just the same, but ultimately my client is the relationship system and the awesome potential of the relationship. I recognize that individual polarizations are valuable viewpoints that are temporarily cut off from wholeness and integration.

Partners who seek couple therapy dedicate time, money, and emotional resources to improve their relationship. Some couples aspire to safeguard the longevity of their relationship. Other partners look for clarity, definition, and help to maximize the time and enjoyment of a relationship. And sometimes therapists are employed to help partners end a relationship that no longer works for them. Sometimes couples are confused about what they want. Often couples are together but function in ways that undermine their

relationship. My job is to help them clarify and operate in a more congruent way. It is not my job to determine for them what kind of relationship they want, but to help them get clear and operate congruently.

This project proposes that couple therapists also have a responsibility to facilitate relationships with an understanding of safety. A surprising share of troublesome couple dynamics emerge from issues related to safety. This project attempts to carefully define what that means and what couple therapists can do about it to support relationships.

Where Does Safety Fit?

If a couple forms a dynamic system, then the concept of safety and security is relevant to the very integrity of that system. Otherwise, if a part of the system significantly threatens or attacks another part of this system, it is like an autoimmune disease. Other parts of the system detect the threat within and expend resources defending itself against that threat. A system under regular self-attack, even in minor ways, does not thrive.

I have worked with couples who always look like they are on the brink of separation because one or the other constantly threatens the relationship. They do this through ultimatums, transgressing previously set boundaries, reactive expressions of doubt about the viability of the relationship, making unilateral decisions, etc. They tire themselves and each other out and then make up again. In doing so they compromise how good the relationship can feel for either of them, but never actually break up. This behavior undercuts the security of the relationship.

If couples such as these were operating with the best interests of the system of

which they are a part, they might be more aware that the threatening ways they act in the relationship is like threatening a part of themselves. Those among us who make it a habit to threaten parts of ourselves that we don't like at the moment tend not to fare well long term. Being a couple is a voluntary shift in consciousness from the individual to the system whole, in which individual growth and wellness is also tied to collective whole of the relationship.

Safety and security in a couple system is more important than we have previously acknowledged. In this paper I hope to change this and put safety and security at the center of exploration. I aim to present evidence about the importance of safety and security, explain specific relationship dynamics through the lens of safety and security, and offer some ideas on how to support couples with safety and security in their relationship.

Research Question and Methodology

In this paper I have two main questions. First, what does it mean to feel safe or unsafe in a relationship? Secondly, how can an understanding of safety guide and enhance a Processwork approach to working with couples?

Throughout the paper I use the terms safety and security. I want to clarify that I use the term safety to describe the biological state of being. I use the term security to refer to the state of safety as it is invoked and maintained within relationships and relationship systems.

Neuroscience

This paper makes ample reference to Stephen Porges' polyvagal theory and research coming from Joseph LeDoux's lab at NYU. I have found both these bodies of

work in neural science to be interrelated and indispensable aids in the understanding of threat states and safety. And in search of a better understanding of the above research questions, I've found these areas of research invaluable to gaining a more concrete understanding of safety, absence of safety, and human interaction around these states.

The use and discussion of neuroscience and scientific theories throughout the paper are meant to weave some of the ideas in this project with the larger discussion in the field about what it means to be a human with a nervous system and how to couple with another human with a nervous system in the most mutually beneficial way possible. I have tried to digest as much of the research on the ideas that I touch on as I can and represent them accurately and reasonably. I've tried not to make long-stretch assumptions or present evidence for my points where no or scant evidence exists. That said, I am not an expert in this field. I've studied the research with a thirsty and inquisitive curiosity and have come up with my own synthesis as a practitioner and person situated in her own life experience.

Over the years our collective understanding of the brain has become more complex. Certain fads of knowledge which claim any absolutes about what happens in which parts of the brain are no longer believable given a deeper dive into the research. What researchers have come to realize is that specific functions we deem important to study are generally not localized in any one area of the brain. Where are memories stored in the brain? Veritably everywhere. Emotions? They seem to be a complex aggregate of many different systems of functioning.

Rather, the brain functions on networks and integration. So, our interest here in

how the brain responds to threat and safety is best considered a system which includes memory, emotion, arousal activation, and ties into the physiology of the body. I will reference specific areas of the brain that have been implicated with significant contributions to this system but this system is not closed, and treatment of it as something discrete is only a conceptual simplification for the purposes of understanding something better about the role of the brain and in these very much subjective categories and phenomenological experiences.

Decades of research has also made us aware that the study of individual brains and neurology will become much more meaningful with the pursuit of knowledge about the functioning of two or more brains and neural systems. We are social organisms and our brains were built for this purpose. Without another system to interact with, even if it is another species, our systems don't do much or seem very interesting (Cozolino, 2014; Schore, 2016; Siegel, 2012). When two come together to form a couple system there are endless possibilities within that defined structure.

PART I: Safety is Real and It is Social

The Construction of Threat – It All Comes Down to Survival

In this section I explore some prominent ideas and theories about safety and threat as they are understood and researched at the biological level. I discuss neurobiological research as well as exponents of this research at length due to the important contributions of this information in constructing what we mean by threat and safety. Neurobiology is a discipline that combines neuroscience and biology. Since the brain is connected to the body through the nervous system, neurobiology studies how its organization and functioning contributes to human behavior.

All organisms share basic methods of survival which include defense, reproduction, and the regulation of heat, fluids, and energy/nutrition (LeDoux, 2014). These are the basic building blocks of life which we might even consider the most basic of realities and when we study these mechanisms in humans we call them survival circuits. When activated, these circuits organize brain and physical functions such that certain responses become prioritized over other activities, increase arousal and attention toward relevant stimuli, engage motivational systems, and enhance memory and learning (LeDoux, 2014, p. 21).

Survival circuits are the ground zero of an organism's functioning. It could be said that all other brain and physical functioning that these circuits trigger (e.g., memory, emotion, cognition, arousal states) are derivatives that support basic survival.

Defense Systems and Hard-Wired Safety

Of all the survival circuits, the defense system is the one most relevant to the

discussion of safety in relationships. All organisms have a defense system which, when triggered, allows the organism to defend itself from exposure to threat. This is the most basic instinct, to protect oneself from harm. The brain's primary function is to keep us alive. Because of this, humans have a confirmation bias that makes us fairly prone to responding to threat.

For humans, the defense system relies on biological structures in the body and brain, whether conscious or subconscious, which register a threat and responds. When it comes to stimuli that triggers the threat response in human relationships, some kinds of stimuli are learned and others are simply innate/automatic. In the context of social relationships it is interesting to note that not all threat triggers are learned. Some, like prosody and facial expressions are basically hardwired, as will be discussed later.

The polyvagal theory also introduces the theory that the vagus, or 10th cranial nerve, mediates the detection of and response to threat by sending bi-directional messages between the organs and the brain. Furthermore, this system is inextricably linked to social functioning and our evolution as a social species. In short, while our fear responses may have originally been evolved to deal with predator threats, the fear response systems that modern humans inherited are inextricably sensitive to what we perceive from members of our own species. In this sense, the idea that we can 'feel unsafe' in an unfriendly interaction with others is not only phenomenologically valid, but also perhaps physiologically accurate.

Neuroception

Researcher Steven Porges (2011, 2016) coined the term "neuroception" to define

our very rapid ability to survey information from all major sensory input channels (auditory, visual, kinesthetic, vestibular, etc) and evaluate whether anything could do us harm. Neural imaging research confirms with strong evidence that when presented with visually threatening images, the defense alarms system gets triggered before we can consciously process what we are seeing (Liddell et al., 2005). Other experiments with skin conductivity (Williams et al., 2004) demonstrate that physiological threat markers appear in response to both conscious and subconscious fear-inducing stimuli.

All this happens outside of our awareness. This is to say that if our bodies have begun to react in some defensive way, we are often not able to readily identify so, much less what caused it. Sometimes we might connect this experience to being afraid or fearful, but this might also depend on how advanced or nuanced one's ability is to read one's body experiences and proprioception. As long as the brain structures related to neuroception are intact and functioning normally, these structures alert the amygdala to respond defensively.

Neuroception picks up on facial expressions, sounds, movement of people/objects, things that touch us, etc. Porges reports that we are hard-wired to evaluate certain sensory input characteristics as dangerous. For example, loud, sudden sounds, especially if they are low in frequency naturally signal a predator is around. In social settings, voices that are lower and lack variance in tone and faces that are still or aggressive both signal danger. When couples fight their facial and vocal features often naturally change in this direction. And so one partner signals threat to the other and vice versa.

Neuroception's evaluation of safety or threat is not always accurate, and from an evolutionary advantage, there is a conservative bias towards over-evaluating for threat rather than under-evaluating. The idea is that neuroception is always scanning so it has the capacity to process large amounts of information with little bandwidth. For processing power it sacrifices precision and accuracy. Its criteria for what might be unsafe is twofold. One set of criteria is hard wired. For example, we naturally detect less threat around a tone of voice with more melodic prosody. The other set of criteria for determining safety comes from memory, or stored past experiences which have the ability to affect future behavior and response.

Neuroception is a function that is so fast and automatic that it is not processed via the higher sensory or cortical channels. What informs a threat trigger is if it encounters a stimulus that it automatically knows to be a threat, or one that is conditioned by previous experience via implicit memory, a kind of memory that can be retrieved without conscious awareness or intent. This contrasts with explicit memory, which results from conscious reflection on past experience and knowledge. While implicit and explicit memory systems utilize some common encoding and retrieval components in the brain, they also operate with components that don't overlap (Turk-Browne, Yi, & Chun, 2006).

A few different brain areas have been implicated in neuroceptive functioning, but most of the information gets routed through and processed by the amygdala. The amygdala then has direct pathways to affect the functioning of the viscera via the autonomic nervous system (Porges, 1994). At the same time, the amygdala is itself well networked with many other parts of the brain that check and balance the threat information that it receives. These connections allows it to "crosscheck" threat

information with conscious, cognitive, and regulatory processes, which can then further influence the state of the amygdala (Scaer, 2014).

Polyvagal Theory Overview

The polyvagal theory is Stephen Porges' reconceptualization of the autonomic systems that detect and respond to threat and how this intersects with social behavior. It is an elegant synthesis of how our defense strategies are organized and deployed, based on our evolutionary development from early reptilian ancestors to present-day mammalian systems.

The theory centers on the parasympathetic functioning of the vagus nerve, or 10th cranial nerve, and its two branches: an unmyelinated dorsal branch and a myelinated ventral branch. The dorsal branch largely senses and controls the gut. The ventral branch downregulates sympathetic influence on the heart and also dampens the corticoid stress response and inflammation. When the influence of the ventral vagal complex is strong the sympathetic nervous system (SNS) and parasympathetic nervous system (PSNS) work together efficiently to maintain homeostasis that supports health, repair, and growth, earning this autonomic state the "rest and digest" moniker. The ventral and dorsal branches are hierarchically and phylogenetically ordered, with the newer ventral vagal complex suppressing or having a "braking" effect on the older dorsal vagal complex (DVC). But when danger is detected the ventral vagal complex "brake" releases so that two older defense systems can potentially be recruited against a threat: the SNS or DVC (Porges, 2003b, 2009).

It seems that if these defense systems were meant to protect us from predators on

the savannah, then the application of these defense strategies within social interactions, which pose no such threat would seem fundamentally flawed.

So, why would people signal threats to our physiology? The polyvagal theory proposes a perfectly viable explanation intertwining evolutionary phylogeny, biology, and brain science. Porges (2011) theorizes the following:

[S]elf-regulatory development starts with a primitive behavioral inhibition system, progresses by the evolution of a fight-flight system, and, in humans (and other primates), culminates in a complex social engagement system mediated by facial gestures and vocalizations” (p. xiii).

By “self-regulatory” Porges explains that the mechanism that evolved for our reptilian ancestors for defense against environmental threats was a “drop-dead” response. Over time we upgraded a second option, which was our sympathetic-adrenal system responsible for fight/flight behaviors. Finally, as mammals, our most sophisticated upgrade for communicating safety and managing threat socially is what Porges calls the social engagement system, which is capable of fine-tuned and responsive arousal regulation. This master regulation functionality is made possible by the myelinated parts of the vagus nerve, an anatomical feature only found in mammal species.

What the polyvagal theory says in a nutshell is that there is such a thing as a state of safety, which can be measured in bio-behavioral signals. And this state of safety is directly related to whether a special bio-behavioral system called the social engagement system is on or offline. The social engagement system is a bio-behavioral network of nerves which govern a lot of paralanguage. Hence, safety is meant to be communicated

non-consciously in social signals. The social communication of safety is so important that we are constantly doing it with each other without consciously intending, forming feedback loops that either result in mutually safe bio-behavioral states or unsafe ones.

Two Defense Systems

There is general agreement among researchers that from a neurobiological level there are two types of defense systems: a mobilizing (energy expending/sympathetic) system and an immobilizing system (energy conserving/parasympathetic) system. According to the polyvagal theory, when people act defensively, there is a momentary inability to activate the ventral vagal system which is a pre-requisite for spontaneous and collaborative social engagement (Porges, 2016).

If our neuroception surveillance detects danger, the body's first line of defense is to weaken the ventral "brake", which enables the SNS to recruit metabolic resources for defense. This is essentially the "fight or flight" response to threat. This system turns on metabolic resources and readies them for expenditure. This defense system is fairly versatile for everything from running from a predator to trying to convince your partner that you are right. With couples, fights that trigger a mobilizing threat response might result in mobilized behaviors like yelling, throwing things, slamming doors, leaving, etc. A person in this state might also appear anxious or seem overwhelmed with thought and feeling.

But if the threat is judged to be lethal or unescapable then the body shifts from weak ventral vagal tone/strong SNS activity to a state with strong DVC influence (Porges, 1997). This second defense system triggers a very primordial set of

immobilization (energy conserving) responses which can slow metabolic function to the point of fainting, vegetation, and involuntary defecation. The dorsal vagal complex “contributes to severe emotional states and may be related to emotional states of ‘immobilization’ such as extreme terror” (Porges, 1997, p. 75). Researchers postulate that dissociation to trauma is a psychic deadening response mediated by the DVC (Schoore, 2009).

And as this was our natural defense strategy in face of trauma and catastrophe, it becomes generalized into an automatic strategy to deal with other stressful events, including interpersonal stress (Schoore, 2009). So entering into an energy-conserved state sometimes becomes a favored method of coping with multiple stressors, including interpersonal ones.

What both of these defensive states have in common on the neurophysiological level is that each one is possible only when the ventral vagal complex is called off. And short of a medical irregularity, the ventral vagal complex is only called off when neuroception detects what it “knows” to be a threat. Once threat detection is established the systems that operate based on nuance and discernment are discarded in favor of systems that are designed to respond quickly and with more gross effect until safety is re-established.

The ventral vagal complex is the branch of the vagus nerve which promotes health, growth, restoration, and social functioning. The way that it does this is by actively inhibiting the older dorsal vagal response. What is notable about both these neurobiologically-derived defense states is that, according to the polyvagal theory, when

the autonomic nervous system is recruited for defense, humans are left compromised in a number of ways, and particularly socially. In order to activate defense systems, the part of the parasympathetic nervous system that actively inhibits defense functioning and promotes health, growth, restoration, and social functioning, goes offline. There is necessarily an inhibition of the neurobiological mechanisms that enable us to be socially attuned, engaged, and signal safety to others. Only when the defense response is released can the ventral vagal complex come back online and restore sympathetic and parasympathetic nervous system functioning for optimal health, growth, and restoration (Porges, 2016).

How does neuroception “know” what is a threat? Some threats register as such because they are hard-wired. Among these hard-wired threats a handful are social in nature and directly associated with vagal functioning. But many threats register as such because they trigger a memory of a previous threat state.

Implicit Threat Memory and the Amygdala

Unconditioned threat stimuli are those things that invoke a threat response without any learning involved. Thanks to evolution, we’ve inherited these threat triggers. Porges’ work on the social engagement system highlights some biological markers of safety within human social systems. The other kind of threat stimuli are conditioned ones, or things that we have to learn are threats by virtue of their association with things we already know are threats.

From a very early age we begin to form these threat memories. The majority of threat memories get stored in the brain as implicit memories, without a conscious path for

their retrieval. Most memories are implicit memories. Only a small percentage of memories overall are explicit memories, or memories that we are aware of. When we learn that something is dangerous or threatening by its association with something already known as dangerous or threatening then this forms an implicit threat memory.

The way implicit threat memory works is this: sensory information gets picked up and processed by fast, unconscious brain processes. If any of this information fits a gross pattern of what we know to be dangerous, either by hard wiring or previous association with a sustained defense/threat state, then the amygdala initiates physiological and behavioral responses to help cope with that threat. Conscious and meaning-making systems may also be initiated subsequent to the automatic response, but not always. And if the threat state is significant enough, we store certain cues and triggers associated with the state to help us to be more alert and ready to defend against the threat in the future (Fox, Russo, & Dutton, 2002; LeDoux 2014). All this happens automatically and outside of awareness.

A classic example of implicit threat memory is the oft-cited (and ethically questionable) experiment that French physician Édouard Claparède undertook with his memory-impaired patient early in the 20th century. The patient had sustained brain damage and lost the ability to form new memories. Each day that Claparède met with his patient she did not recognize him. One day he concealed a pin in his hand and pricked her upon their meeting handshake giving her a shock. The next day the patient still did not remember the doctor, but she refused to shake his hand (Claparède, 1951, as cited in LeDoux, 1996).

A Perspective on Fear

The feeling of fear often happens adjacent to the threat response, but the two are created by separate systems in the brain. Simply, the threat response happens in subcortical regions of the brain while conscious feelings are generated largely in cortical areas (Mobbs et al., 2009; Williams et al., 2006). Showing a person something threatening will trigger their defense circuitry, and because they are aware of what they are responding to, they may also feel afraid. On the other hand, in experiments showing a person a subliminal threat, their bodies show the physiology of the threat response, but they do not report feeling afraid.

Joseph LeDoux, a leading researcher on threat circuitry has only begun recently to make the distinction between fear and the basic mechanisms that mediate threat responses. In his career he has authored and co-authored some 142 journal articles with the word “fear” in the title. He became famous in the research world for being one of the pre-eminent researchers on fear and most people associate his work to discoveries about the amygdala as the center of fear. More recently he has flat out refuted the label of fear that he and the rest of the neuroscience and psychology fields have in the past applied to his research on the amygdala and threat conditioning. He now stresses the importance of separating our discourse about the human experience of fear from the threat response circuitry (LeDoux, 2012, 2014, 2015a, 2015b).²

² LeDoux (2015a), talking about his own body of research on conscious and nonconscious system responses to threat stimuli: “The mistake I made was calling all of that stuff fear. I had in mind implicit fear and explicit fear. But the problem is any time you use the word fear most people are going to think... you’re talking about the feeling of being afraid, not these unconscious processes. This field has struggled with this this distinction for a long time. My colleagues still talk about fear conditioning... it’s leading

Threat response circuits have an objective purpose from the perspective of biology, and that is to help us stay alive. These systems make black and white determinations of safety and danger, while the realm of emotions labeled as fear, anxiety, panic, and terror are the flavors of conscious experience. Fear is a way for the brain to label the physiological changes that it detects in the body and explain them with what it can observe in the external environment. Fear is not necessarily universal across species because fear can only be felt by beings that verifiably know they are afraid, which thus far we can only reliably confirm are humans. LeDoux explains:

In other words, emotions are our conscious understanding and representations of a number of different biological and external inputs. They are important in that they foster social communication and self-communication for homeostatic regulation, but they are not a primary part of the threat response.

Fear is certainly a recognizable and relevant emotion when discussing the dynamics and mechanics of threat and defense, but it is also important to keep a distinction between the experience that humans subjectively label as fear and the physiological changes that accompany activation of threat response circuits. Fear is almost always secondarily triggered by the threat response rather than a necessary part of it. What's more about fear is the amount of subjective interpretation it allows. Fear comes in degrees and can sometimes even be interpreted as positive, as in being "motivated by

us in the wrong direction. It's causing us to confuse two things that the brain does separately by labeling them the same way. For example, partly as a result of my work the amygdala has been thought of as the center of fear in the brain... I think that is completely wrong."

fear”. It is important to keep this type of creative interpretation separate from the mechanisms of survival circuitry and threat response, which are a lot less open to interpretation.

Why the painstaking distinction? As mentioned previously, much of the time that defense circuit triggers get tripped up, it can be observed and measured physiologically and neurologically, but does not register consciously as fear. So, as clinicians who are interested in recognizing threat states as they occur, it is important to note that it is not sufficient to just pay attention to our clients’ feeling and emotion states by self-report or as they can be read on the face. Perhaps more importantly we want to look at changes in neurobiological arousal and behavior.

So What?

As discussed so far, numerous systems in the brain and body work together to warn and protect us from threat. These systems tend to range from responsive to hyper responsive among individuals. Given the propensity for people to enter into bio-behavioral threat states triggered by implicit memory and driven by brain-body interactions, it’s no mystery why this might happen frequently in relationships. And once activated, threat states are contagious within relationship systems.

It may not be immediately obvious why threat/defense states are bad or why we might want to spend as little time in these states as possible. There is not one right answer to this question but the conclusion I have come to is that threat states are bad for relationship systems. The more time that passes in which partners are dysregulated with one another the longer the duration they will experience strong negative affective states.

Memory systems then record these experiences in long term memory and people begin to attribute their partners as the source of threat, just the way Dr. Édouard Claparède's patient, even without knowing why, did not want to shake his hand after he pricked her the day before. And when partners associate each other with threat it is very difficult to relate with trust and ease.

The Construction of Safety/Security

This section will talk about what safety is and the mechanisms that create safety states. The central thesis of this paper is that safety is an important, if not the most important, concept at the heart of working with couples. The human threat response is a major obstacle to feeling safe, but it's important to note that what makes humans feel safe is not just the absence of threat. For humans to feel safe around one another, there generally needs to be some active signaling of safety, or what we might call the activation of the social engagement system. Stephen Porges states that the social engagement system promotes "positive affective experiences, relationship building... It is a symbol that the nervous system is safe" (Dharma Cafe). Thus, we might infer that a baseline neurobiological safety is a precursor for pro-social behaviors.

As stated earlier in the paper, security is the state of safety as it is invoked and maintained within relationships and relationships systems. So while safety is measurable on an individual level, security has to do with what functionally happens between people that either contributes to a safety state or is a deterrent to it. Security in a couple relationships has to do with the ability for partners to track and mitigate threat states in one another.

What do threat states do to relationships? I would argue that threat states, especially when prolonged, promote insecurity. What promotes security is if partners know how to catch one another's threat states before they bottom out.

Top-Down Return to Safety – Orbitofrontal Cortex (OFC)

Because of the unconscious nature of implicit threat memory, when defense systems are activated it is largely a bottom-up process in which changes and information from the viscera is what signals conscious brain processes that something does not feel right. It is a "gut reaction". However, because each brain system is intricately networked and connected to many others that check and balance its functioning, and the informational pathways between the central nervous system and autonomic nervous system are bidirectional in feedback, regulation also happens top-down, in which high level brain centers have the potential to regulate the functioning of the body and organs.

As threat alarms sound off in the subcortical areas, once the cortical areas "catch on", if they can unequivocally identify the suspected threat as not threatening, then these cortical areas can depotentiate the amygdala's response. For example, if one looks quickly at an object and quickly assess, based on gross appearance, that it is a spider, the threat alarms may go off. But then if the cortical accesses the knowledge, "I'm not afraid of spiders, I killed one just yesterday," then this will de-potentiate the threat response (Ohman, 2005).

One such brain structure that has been implicated as important to the top-down regulation of threat is the orbitofrontal cortex (OFC), the part of the prefrontal cortex that sits just above the eyes. Robert Scaer (2001) calls the OFC the "master regulator for

organization of the brain's response to threat" and when mutually activated and in communication with the amygdala, the OFC may also be responsible for conscious appreciation and processing of threat states (p. 78).

Damage or sub-optimal development of the OFC early in life, as a result of relational trauma, is linked to more dissociation in response to threat (Schoore, 2009). Some theorists surmise that this is because the OFC has an important role in interpreting information from the brain stem and ANS. When the OFC does not have strong pathways built up to do this then this break in vertical integration between higher brain functioning and lower brain/ANS functioning contributes to dissociation (Schoore, 2009).

Social Engagement System

The social engagement system is Porges' conceptualization of how the ventral vagus works in integration with other nerves that regulate core social behaviors such as vocalization, eye movement, head turning, facial expression, swallowing, and ability to hear vocal range. So, in addition to two-way regulation of autonomic states in the viscera, the ventral vagus is also involved in a two-way feedback activation between spontaneous social behaviors and bodily states (Porges, 1997, 2001, 2003a, 2003b, 2009).

When the ventral vagal influence is high, the social engagement system is "on" and both sympathetic and parasympathetic influences align together to create positive social experiences via a well-timed coordination of looking, listening, complex facial expressions, pupil dilation, prosodic vocalization, and posture. In relationships these social behaviors all convey curiosity, acknowledgment, and expression. Our eyes and face look more expressive, our tone of voice is more prosodic, and our posture looks

more inviting. The collective function is that we have greater ability to signal approach cues to another person. Additionally, our senses, particularly looking and hearing, are heightened for picking up friendly approach cues in the other person as well.

This type of regulation is obviously very valuable for interpersonal communication. It is easy to take this ability for granted and assume that we can do these things at will. But actually the ability to do these things in timely coordination with others is largely a function of having an autonomic state that is not recruited for threat and therefore is regulated by the ventral vagal system.

What Safety Is and Is Not

Safety is more than just absence of threat. Nor is it merely a state of calm and relaxation. The polyvagal theory predicts that when safety is present is when people have access to a versatile spectrum of up- and down-regulatory capacities. This means that people can be in high states of arousal and vitality, or very low arousal calm and quiet states and still have an experience of being safe. The difference again, is the versatility in up and down regulation.

Only within the domain of safety is spontaneous play possible. Play is an active state that uses the sympathetic nervous system to facilitate movement between states of uncertainty and states of reassurance (Porges, 2016). When the sympathetic nervous system is recruited for defense, its functioning is less flexible and does not do playful states well.

Putting Safety Together

Later in this paper I will explore further from a Processwork perspective whether

safety is a process or a state of being. But for now I'll simply answer that it seems to be both.

On the one hand, safety as a state is clear from the perspective of neurobiological systems and how safe one feels can be measured objectively by skin conductivity, heart rate variability, eye tracking and/or less objective social dynamics. Neurobiological systems evaluate people and environments as either safe or threatening and respond accordingly with fight/flight/freeze/collapse (in cases of threat) or social engagement (in cases of safety). A social component exists to whatever state is manifested, so whether someone is in a state of safety or threat can usually be consciously or subconsciously “read” by others in close proximity via vocal prosody, face and body expressiveness.

On the other hand, the neurobiological state is not only a variable determined by what is happening in the environment, but by the interactive effect between what is happening within ourselves (including with our memory systems), conscious/active self-regulatory behaviors, and the environment/others. This safety in this sense is also a developing process in which social engagement can be online, offline in response to threat, and then online again with the co-regulated or self-regulated depotentiation of threat. So, the state of safety is at once a momentary state which can be labeled and a developing process which changes.

Attachment Theory

While the ideas in this paper are not specifically based in attachment theory, the influence of attachment theory in the field of relationships security has been enormous and it is worth discussing what it is and how it is related to the ideas presented here. In

some ways attachment theory has been billed as the model for understanding safety and security in adult relationships. Prominent teachers of couple therapy like Sue Johnson and Stan Tatkin have adopted the use of attachment style classification as well as attachment-related early family-of-origin work as a central to the treatment of couples.

Attachment theory has provided a convergence for different disciplines to explain some important behaviors that partners exhibit in relationship, but I will also discuss the limitations of the attachment model of adult relationships and specific reasons why some important elements of the model do not fit well with the Processwork model.

In *Attachment and Loss Volume 2*, originally published in 1973, John Bowlby (2000) articulates that there are three basic behavioral responses to the fear instinct: withdrawal, freeze, and seeking proximity to a protective presence, the latter of which is the essence of attachment behavior. Attachment is an innate biologically evolved system that is activated by distressing and fearful experiences (Bowlby, 1988). When activated, the attachment system protects us by making us seek comfort and security with a safe and competent figure.

Although much of the time attachment is studied via the infant/caregiver relationship, Bowlby, the first person to extensively develop and research attachment, wrote about attachment as a lifespan phenomenon:

Attachment behaviour is any form of behaviour that results in a person attaining or maintaining proximity to some other dearly identified individual who is conceived as better able to cope with the world. It is most obvious whenever the person is frightened, fatigued, or sick, and is

assuaged by comforting and caregiving. At other times the behaviour is less in evidence. Nevertheless for a person to know that an attachment figure is available and responsive gives him a strong and pervasive feeling of security, and so encourages him to value and continue the relationship. Whilst attachment behaviour is at its most obvious in early childhood, it can be observed throughout the life cycle, especially in emergencies (Bowlby, 1988, p. 26-27).

Through this lens adult romantic partners choose each other in a way that activates their attachment systems, and doing so in theory defines the most important thing that they ultimately want from one another, that is a deep sense of comfort and ability to be regulated by another person when lacking that capacity. Just as the child seeks proximity from a mother when stressed, the adult partners seek soothing and stimulation from one another. To attachment theorists, this security is perhaps the primary function of adult partnership, and the drive to attach to another person for basic attachment needs is strong whether or not the partners are able to provide this to one another or not.

Attachment theory postulates that people, when stressed, innately seek safety, comfort, and help from significant others. But early and subsequent experiences of how this need and yearning played out (whether the significant other was available, consistent, predictable, and/or satisfactory in their response) casts a major influence on how we approach our own need-based feelings toward others, how we think others perceive our need-based feelings, and finally, how we act upon these feelings.

If the quality of these early experiences were satisfactory then we can view our needs and requests as valid and will be met by others with legitimacy and competence. This outlook empowers us to navigate our need-based feelings with levelness and equanimity (secure type). If these early experiences with our need-based feelings were significantly unsatisfactory, we won't expect them to go well in the future and don't think very well of our own yearning and inclination toward seeking help. Conditioned with this negative outlook we do not act collaboratively with a partner to have our needs met, even if it is also in our own self-interest. Instead, we either deny that we have this inclination or yearning and take care of ourselves (avoidant type) or we get so consumed by feelings of abandonment and need that we protest and get angry (resistant type). And if we experience enough unresolved, confusing, or terrifying scenarios under attachment conditioning, such as a parent being the source of both terror and safety, then we may exhibit confused, contradictory behavior when partnering in adulthood (disorganized type) (Liotti, 2006; Schore, 2009; Tatkin, 2016a, 2016c).

Initially articulated by the research of Mary Ainsworth and later built upon by Mary Main and others, 'secure', 'insecure avoidant', 'insecure resistant', and 'disorganized' are the four basic types that form another key discussion in attachment theory. These styles are essentially implicit memory templates for intimate relating.

What I find most valuable about attachment theory is the basic notion that not only is finding safety a critical aspect of human existence, especially in early years for evolutionary reasons, but that this safety is meant to be found with the support of a significant other.

Neuropsychology researcher and theorist Allan Schore was an early proponent of seeing attachment bonds as having a regulatory function and this framework provides an important way to connect infant attachment to adult relationships. According to the arousal regulation approach to attachment, the quality of a caregiver's ability to regulate an infant's affective states determines how the child implicitly views his or her own needs and expectation of whether these needs will be met. This pre-verbal form of affective regulation is all done through face-to-face, eye-to-eye, and skin-to-skin contact (Tatkin, 2016a), and when done well, soothes us when we are stressed, evokes mutually positive experiences, and provides just enough stimulation for growth and learning.

From this view early attachment bonds promote extrinsic, relational regulation of functions that infants are not yet able enough to do themselves. The quality of this attachment bond is the basis for an internal working model (IWM) for how effectively we can later soothe and stimulate ourselves when in states where previously we would have sought regulation from an attachment figure (Schore, 2016).

Furthermore, it is theorized that the development of this self-regulatory capacity later gives way to the ability to be the regulatory "adult" for another human being (i.e., a relationship partner in distress or one's own child). In other words, high quality care as a baby leads to high quality self-regulatory capacity, which gives way to more securely adaptive behaviors as a partner and then parent. This is the theoretical mechanism by which attachment patterns are preserved across the lifespan and passed down from generation to generation (Siegel, 2012).

With adult relationships, attachment theorists seem to say this: regulating fear and

threat states in one another as humans is our biological birthright. But the task of doing it requires a complex coordination of well-timed signaling and response from both parties. If we didn't get quality regulation as a child then in our adult lives we may be hampered in our belief that we can signal effectively to a partner to get our needs met and/or our functional ability to read a partner correctly and meet their needs when they need us.

For those who do attachment-informed therapy for couples this perspective could mean many things. Some therapies focus on helping couples develop the verbal skills to signal and respond verbally using expression of emotions and needs. Other therapies emphasize the need for each partner to learn one another's signals and cues and respond competently to them. What many of these therapies have in common is that they are attempting to orchestrate a coordinated and collaborative system of signal and feedback.

Attachment in Context

Individual attachment style is seen as something that crystallizes in early childhood and is passively expressed later in life (Schoore, 2001a). Most modern attachment research on adult attachment and couples center around what are presumed to be enduring typologies that characterize how people, as infants, originally dealt with distress from separation or misattunement and how these patterns show up in adult romantic relationships (Mikulincer & Shaver, 2016). Critics of attachment theory argue that dependence on early experiences in shaping adult behaviors is too deterministic, and ignores the influence of genetic factors, later life experiences, existential life events, social class, and social/cultural/environmental factors in shaping human behavior (Ecker, Ticic, and Hulley, 2012). After all, who can deny that one's ability to express interpersonal need is shaped by, for example, one's gender conditioning?

Attachment-based couple therapy also hinges on the importance of an early infant developmental window that is particularly vulnerable and primed for tethering to an external caregiver who ideally wants to and can regulate the infant's state through accurate attunement and effective emotional soothing and stimulation. The idea is that this helps the child later develop the capacity for self-stimulation and self-soothing then eventually be able to provide some of this to others in relationship.

The idea that this early period is paramount to establishing enduring models of attachment orientation has been challenged. Tracking attachment style for consistency from infancy to adulthood has not proven easy and the prevailing theories on the matter suggests that attachment models are updated throughout life, to some greater or lesser extent, as people encounter relational dynamics that challenge their models of what to expect (Fraley, 2002). Additionally, the use of neuroscience to explain the early-or-never approach to establishing relational security patterns has been called into question by those who argue that plasticity and resilience are the general rule for brain functioning throughout life (Wastell & White, 2012).

Early childhood experiences can establish a pattern of relating, but these learned responses can be buttressed in either direction later in life if new experiences serve as a formative counterpoint to earlier experiences. Certainly the early relational experiences can make a lasting impression, but attachment theory oddly seems to purport a kind of early determinism that goes against a more holistic biopsychosocial approach to human behavior and phenomena.

What attachment gets right is that early childhood experiences definitely play an

important role in laying down the tracks of experience, especially around safety, comfort, and care. These experiences are pre-verbal but encode important implicit memory related to face-to-face, eye-to-eye, and skin-to-skin intimacy and regulatory contact. But where attachment theory is limited is also in its over-emphasis on these early experiences, to the detriment of ignoring all the potentially formative experiences in between infancy and adulthood. All these experiences when a child learns to be with peers, teachers, secondary/tertiary caring figures, etc., where there is the opportunity for these implicit memories to be reinforced, overwritten, or rewritten.

Ultimately the model I propose for dealing with safety and security is not an attachment-based model. If anything, I propose an implicit memory-based model that does not make broad, sweeping generalizations about people's type or style, but instead studies people in their moment of threat, tries to understand the underlying memory mechanisms and neurophysiology for their presentation and behavior, and finally makes general recommendations about how to intervene.

Practically speaking though, there is considerable overlap between the implicit memory-based attachment templates and what shows up as a threat state in couple work. Attachment frameworks can provide valuable insights into understanding couple dynamics. While early childhood experiences don't set future behavior in stone, a lot of times problematic avoidance or criticism in a relationship dynamic can be traced back to the implicit memories that point to attachment conditioning.

I don't believe that typologies around relationship security are either necessary or warranted. Much of what I am trying to study with researching threat states is who we

become when we are in states of threat. In theory, a typological system could tell us categorically who we are when we are under threat, who our partners are under threat, and what to do about it. This is an attractive idea. This could be a new classification or use an existing one such as the ones developed by attachment theorists. After all, attachment patterns or styles much describe who we are when we depend on an intimate other, especially under situations of stress. While it is clear that patterns will form in human behavior, we are also capable of much more variety in response to threat than any typology system would have us believe. This obscures certain nuances in behavior, and renders these systems limited in their usefulness, and perhaps even reductionist or stigmatizing in their execution.

Hence I think it is useful to be able to identify specific threat states as they happen in real time and work with these threat states, whether they originated in childhood or not; whether the triggers are attachment-related or not; and whether the threat behavior “matches” the attachment style or not. I believe there can be a fruitful discussion of what to do about these threat signals without the frame of a personality typology. In the future we may find a compelling need or reason to typologize based on what we know about threat states and the context of intimate relationships, but that would require thinking and research beyond the scope of this paper.

Mechanisms that Change Implicit Memories

So far we’ve looked at how the brain learns what is dangerous and what is safe, and how these associations get stored as both implicit and explicit memories. Attachment theorists count on the enduring nature of these memories to tell a story about attachment style that stays the same from childhood through adulthood.

However, brain science has also delivered evidence over and over again about the plasticity of the brain to learn new information and this also applies to implicit threat memories. Two mechanisms that been studied to change threat memories are extinction training and memory reconsolidation.

For decades behavioral therapists have been using exposure therapy to help clients overcome phobias and fears. This employs the neural mechanism called extinction training, which pairs a cue that had been associated with danger to one that signals safety, and doing this over and over again (usually dozens of times) until the brain sustains a new association of safety alongside the old one of threat. In this way, the term “extinction” is a misnomer because using the methods described, the association for threat never fully disappears, but at best yields to the stronger neural connections built up for safety. Researchers have also found success in changing threat memories with strategies such as pairing extinction training with a novel or unexpected outcome (Dunsmoor et al., 2015).

Memory reconsolidation holds hope for a more permanent transformation of threat memories. Memory reconsolidation is a newer discovery in neural research whereby a learned association becomes destabilized for a window of time once the original association is traced and activated. During this window of time the memory is pliable to manipulation and updating such that new associations can be introduced and even overwrite the original memory (Alberini & LeDoux, 2013; Pedreira, 2004). Memory reconsolidation has particularly been successfully applied to implicit threat memories. As such, clinicians have been employing clinical techniques involving memory reconsolidation in the treatment of attachment patterns, traumatic memory, and other

non-conscious learned emotional knowledge (Ecker, Ticic, & Hulley, 2012). I discuss some ideas on how to leverage memory reconsolidation mechanisms in the last section of this paper.

Memory reconsolidation research suggests that each time we recall a memory we are generally not merely retrieving the memory that was originally stored. Rather, the version of the memory recalled is the version of the memory last reconsolidated. When a memory is retrieved a reconsolidation window opens by which the memory can incorporate updates to its basic structure. From about ten minutes after retrieval for up to five hours, the memory is subjectable to direct update.

Memory reconsolidation update differs fundamentally from extinction training. In extinction training new learning is layered on top of an existing memory. The old memory still exists and competes with the new memory. Instead of layering a new learning with which the original memory has to compete, memory reconsolidation provides a mechanism for changing the structure of the original memory (Alberini & LeDoux, 2013).

Practical implications for memory reconsolidation abound. Clinicians have pointed out that memory reconsolidation offers a neurological basis for lasting transformation and change (Ecker et al., 2012). All this supports the view that implicit threat memories are definitely subject to change throughout life.

Relationships and Threat States

Neurobiology only takes us so far to understand and work with the nuance of human interaction. Threat systems are already complex by way of their decentralized

nature and involvement of different parts of the brain, the autonomic nervous system, neuroendocrine system, memory systems, etc. In practice how all this plays out in relationships with couples is perhaps even more complex. Beyond the established theories about threat we still have to speculate about what is happening in the moment with a couple and where it matches with theory. This section will attempt just that. I will try to weave theoretical ideas with what I have observed in clinical practice with couples.

I would like to propose a way of relating observable behavior to the nature of threat states. I propose that there are two kinds of threat states: sympathetic ones, which give rise to fight/flight/freeze behaviors or parasympathetic ones, which give rise to dissociation and collapse. There are also times when both these mechanisms are observed at once.

For all that is described generally in this section it is important to note the wide diversity of threat response. The descriptions here are merely a collection of research and observations upon which I have found useful to speculate. It's also important to note the vast variation of baselines that people have and that we are looking for clear inflections and changes from whatever baseline from which they begin.

When it comes to couples, partners triggering threat states in one another seems inevitable at one time or another. This can play out in an endless permutation of specific content as varied as the imagination allows. It could be a comment to a partner about how the rice was overcooked, a too-quick pat on the hand that registers as dismissive, or the thunderous sound the door made when the partner shut it. Our nervous systems can be skittish in ways we don't consciously expect. All it takes is for a stimulus to bear even

passing resemblance to something that has threatened us in the past for threat alarms to go off.

I find it helpful to differentiate between mobilizing threat states and demobilizing ones. But in either case, these states are partially defined by the removal of ventral vagal influence, thereby hampering a person's ability to engage in a socially constructive way. Whatever the specific mechanism, all threat states fail to facilitate person-to-person connection, even if there is conscious intention to be engaged.

When one partner gets triggered, the behavioral response can easily trigger the other partner. Beyond what is happening with the individual I also want to outline the phenomenon of mutual threat and an interlocking threat dynamic in couple interactions.

Fight/Flight/Freeze Behaviors

I have commonly seen sympathetic threat states in intimate relationships. One required component of sympathetic threat is increased sympathetic arousal. The mobilizing response can be detected in the face and body. With a sympathetic adrenal threat response may come tightening of muscles in the face, neck, and limbs, including clenching of the fists, furrowing of the brow. One might also observe dilation of the pupils, increased color in complexion, and pulsing on the face or neck from increase in heartbeat and blood pressure (Porges, 2011; Tatkin, 2016a).

Increase in sympathetic arousal is necessary but alone not sufficient to characterize a sympathetic threat state. Threat response is not simply what we can observe in a person's physiological state which indicates increase in sympathetic arousal. Sympathetic arousal happens also when it's too hot or too cold, when we are excited or

attracted to someone, during intense cognitive or emotional engagement, or under many kinds of external stress.

Couples can fight, argue, debate, and provoke one another in ways that escalate sympathetic arousal yet have little trouble resolving their disagreements and repairing and re-establishing connection as desired. These kind of interactions might grab my attention as a therapist, but I don't worry about them too much because they still look fundamentally coordinated and free of threat. The trouble lies when the couple system does not effectively use or manage this level of arousal for the vitality and benefit of the relationship. Instead, their interaction looks uncoordinated and discordant. Very quickly the couple can turn against one another. They both view each other as enemies and continue to escalate based on their dismissal of, and feeling dismissed by, one another in the moment.

Other signs to observe to boost the case of threat arousal is often when people communicate in attacking ways. Due to the removal of ventral vagal tone on the neural areas affecting the social engagement system, people sound more aggressive. Additionally, the content of what they say might be accusatory, pseudo-logic driven, and attack oriented.

I worked with a straight couple in which when the female partner got upset to tears, the male partner attacked her, stating that she was using dramatic effect to manipulate the situation. He had a very acute response to his partner's emotion but didn't even notice. When it was pointed out, he justified pseudo-logically that he must be having such a response because his partner's emotion "did not make sense" and he only

displayed congruent empathy if his partner's tears "made sense" and weren't a tool for manipulation. However, the tearing partner appeared fairly congruent from my perspective, and the attacking partner could not point out where he saw her partner's deception. Most likely the attacking partner's reasoning was a made up explanation to reduce anxiety after onset of a sudden defensive attack state of which he was not aware nor could he explain.

Turning to attack is a clear indicator of a relational shift from viewing one's partner as friend to seeing them as foe. When one goes on the attack it nearly obliterates the possibility of mutual communication and rhythmic feedback and response. Everything about this state communicates, "I am hostile." Because the implications of this are highly anti-social, it's a strong indicator that the ANS has been recruited for defense.

Fallacies in logic are another hallmark of the mobilized threat response. Threat states siphon resources from higher brain centers and change their functioning which results in compromised memory, judgment, and insight. Couples often engage in argumentative debate and attack when under threat, but most attempts at reasoning and explanation fall short of good logic.

"Freeze" is an interesting state worth additional attention. Even though freeze has sometimes been characterized as a dorsal motor vagal response, as in animals becoming rigid and feigning death, there is much evidence that the human behavior of freeze in response to threat is a mobilization response (Ohman & Wiens, 2003). I want to point out that there is a big difference between freezing due to dorsal motor vagal immobility and a

state of frozenness characterized by stiffness and muscle tension due to sympathetic adrenal system being overactive. In human practice the dorsal motor vagal response looks more like loss of muscle tone and collapse or dissociation. What they both have in common is a behavioral lack of engagement, but, in fact, they might require different approaches to address.

Withdrawal can also be an indicator of overactive/dysregulated sympathetic activity. When a person's arousal level "heats up" too quickly, turning away and withdrawing might be an automatic reflex to reduce intensity and stimulation.

Kalil describes he is applying to post docs and his girlfriend Jane has been pressuring him to apply to positions in certain cities. She has regularly expressed her disapproval at his desire to apply to positions in other cities. Khalil does not want to have conflict with Jane but also does not want to limit too much the geographical options for his work. They've fought many times without resolution about this very issue and each time the topic comes up, Kalil feels anxious and hopeless. His heart races, face gets red, and breathes shallow. He can no longer maintain eye contact with Jane as he tries to defend his decision. When she challenges him to engage with her more he gets worse and just shuts down by walking away.

Collapse/Dissociate

Aside from sympathetic states of threat, people also display threat states that demonstrate the dysregulated parasympathetic end of the arousal spectrum. This we can call the phenomena of collapse or dissociation. Collapse refers more to the autonomic state of hypoarousal mainly associated with a shift to dorsal vagal functioning.

Faced with some kind of stress or threat, the body will normally first try to employ the sympathetic nervous system for defense. The dorsal vagal system only kicks in under conditions of mortal danger or impossibility of escape. This situation can emerge spontaneously to a threat that is severe enough, or in other cases, as a failsafe if SNS activation fails to alleviate the threat. In such cases, according to the polyvagal theory, the ANS will shift the management of the internal organs to the dorsal motor vagal system. At an extreme, the dorsal motor vagal response triggers a drop in metabolic energy and causes a person to lose consciousness.

When a milder dorsal motor vagal shift occurs, people remain conscious, but certain face and body cues shift, including paled skin, dim eyes, collapsed posture, listless face, and slurred speech. People also sometimes report feeling nauseous, disoriented, or wanting to throw up. Reduced oxygen flow to the brain also produces a more altered state of being. People might go silent, stare blankly, look dazed and confused, etc.

If fallacies of logic are a hallmark of SNS threat states, mental dissociation and disorientation are characteristic of dorsal motor vagal threat states.

To complicate things even more, a dorsal shift can occur even as the sympathetic markers of arousal are still showing from a preceding SNS defense response. So, the dorsal motor vagal response can come on suddenly and appear more dominant in presentation or you might see “pockets” of it littering throughout a different presentation.

Sudden and dysregulated drop in arousal is a fair predictor of a threat state, and one in which the threat is perceived as hopeless or insurmountable. In many ways

parasympathetic threat states are more formidable than sympathetic ones. Dorsal motor vagal threat states tend to last longer and are more difficult to get out of. While hypoarousal marks distress, the dorsal motor vagal response only kicks in with the perception of hopelessness or impossibility of escape. It activates either in situations of extreme dire crisis or when memories of such are activated. In other words, dorsal motor vagal responses, especially acute ones, are rooted in trauma.

It's important to also understand that the collapse/dissociate threat state is not the same as a behavioral withdrawal. A partner's withdrawal during conflict is more likely a sign of over-activation (whether threat-motivated or not), and cutting contact as a learned strategy to regulate that over-activation.

As a couple therapist, identifying a threat state and its biological underpinnings is the first and most basic step. After that, there are clinical choice points and an array of intervening options. We'll soon look at some specific suggestions as well.

Dissociation

Dissociation refers to the altered state of mental awareness, and from a relationship standpoint, marks a point of lost connection. While not all dissociation or drop in energy are markers of a threat state, when the two are coupled together, it's a pretty good sign.

While the dorsal motor vagus takes over and results in a threat state that restricts metabolic resources and produces physical collapse and markers of hypoarousal, it is higher cortical areas that are responsible for the altered mental state that we call dissociation. Allan Schore (2009) theorizes that "dissociation... is best understood as a

loss of vertical connectivity between cortical and subcortical limbic areas within the right hemisphere” (p. 117). The vertical connectivity to which Schore refers relies on the development of the orbitofrontal cortex, an area of the brain associated with, among other things, conscious processing of information and from subcortical brain centers and activity from the ANS, including threat states. When this vertical connectivity is abundant, threat states still get triggered but are eventually checked and tempered by the OFC as necessary, which functions as a master regulator of systemic threat. And at least in rat studies, when this connectivity is missing, threat states are prolonged (Morgan and LeDoux, 1995 as cited in Schore, 2009, p. 120).

So, dissociation in the context of parasympathetic threat can be seen as the failure of conscious cortical processes to sort, make sense of, and downregulate the threat state.

Schore also speculates that early relational trauma inhibits the optimal development of the orbitofrontal cortex, thus making dissociative states more likely throughout the lifespan as a response to relationships, trauma, and other stress.

Essentially, people with damaged or ill-developed connections between the ANS and higher brain regions lack the ability to consciously appreciate and process threat states.

Interactive Threat

There is an inextricable relationship between the state of threat experienced in the individual system and how this plays out in the relationship system. Once triggered, one partner’s threat state can be amplified or subdued by a partner’s reaction. If the partner’s response is friendly, then this gives the first partner’s cortical functioning to “catch up”

and self-assess whether the threat is valid, then make regulatory adjustments as appropriate. But if the partner's reaction is hostile, this confirms the threat was real to begin with and encourages more recruitment of the autonomic nervous system for defense, further impairing the social engagement system.

In relationships we cannot simply define threat simply by looking at one person's state. Any one partner's bio-behavioral state or feeling state is not the end goal. Rather, these states represent clues about how the system is functioning and what next is possible or required to support the system. There is not a fixed goal for a certain state, but the goal is a range and flexibility of states and an intelligent ability within the system for one partner to use their range of states to respond to their partner's range of states. The best chance for this is to restore safety and enhance ventral vagal tone in one another's in autonomic functioning.

Due to the ease of reciprocal and escalating threat markers, partners face unavoidable challenges for maintaining safety in their relationships. What may be less apparent is the resources that also exist for partners to use each other and the relationship to bolster their sense of security and trigger safety states in one another. For all couples who form an attachment to one another, the potential to use the relationship for such purposes exists.

One reason this capacity is underused or underestimated is that we live in a modern western culture that values individualism, and people have a tendency to operate from the perspective of individual interests. Culturally, we train people to do this as a function of becoming an adult. Childhood is associated with dependency while adulthood

is associated with independence and autonomy. This training entails a belief that looking out for one's individual interests is necessary because no one else can look after them as well. Add to this varying degrees of negative memories and experiences in pairing with another person for care and regulation needs, it then makes sense that as a society we may uphold the ideal of pair bonding, but often fail at supporting lasting partnerships in a truly collaborative nature.

A Case

Luisa has been with her wife for eight years. They used to regularly launch into passionate arguments and conflict but Luisa always described her experience of this as 'no big deal.' At the end of the day she knew they had one another's backs. Most of the time they got to have make up sex worth the effort and energy of the conflict. However, about a year ago during one of these arguments her wife professed to Luisa that she was "dead to her", and wanted a divorce. Luisa's world came crumbling down. After this incident Luisa described that "something changed" which ended up affecting all aspects of her life and ability to cope with stressors.

Prior to the incident Luisa had grown up with many adverse childhood events, including sexual, physical, and emotional abuse. In her adult life she was competent and accomplished at everything she did, including a successful law career, mother of two adult children from a previous relationship, and adoring friends. Since the incident Luisa has had inordinate difficulty coping with work stress, other relationships, and particularly she could not feel secure about her marriage no matter how many reassurances her wife gave her.

When the couple have conflict Luisa complains that she feels hopeless and confused. Their fights have been explosive since then, and not in a good way. Luisa often feels out of control and has gone to the point of threatening suicide several times. This confuses and frustrates her wife. Hunched over, pressing into her stomach, and speaking in a voice reminiscent of a frightened child, she begins to blame herself in shame-inducing ways. Her presentation indicates to me at least some dorsal motor vagal threat influence. Exploring this further we do indeed find that the way she has been shaken by her wife's words reminds Luisa of times as a child when she felt severely rejected for who she was.

Despite Luisa's early abuse and difficulty in her family of origin she was able adaptively move through the world and relate to her partner with relative ease and confidence. It appeared that she processed these memories in a way that were buffered from the life she built as an adult. But the incident that took place a year ago triggered an implicit threat memory experience from childhood rather acutely, and this took away her apparent ability to cope with things that previously were 'a piece of cake'.

PART II: Processwork and Safety

How Processwork Supports Safety

Processwork goes beyond normal, everyday “what makes sense” and adds wizardry. I can think of no better way to describe it, and I’m grateful to Processwork for helping me find the “wizard” in myself as well. Processwork has a penchant for diving into states that, on the surface, are unknown, worry-inducing, or most disturbing, and explore them with further unfolding. Processwork would see a scary, tumultuous river and say, “Woohoo! That looks fun! Maybe this is my day to jump in and find out where it takes me! It’s scary but I’m also curious,” and in she jumps, the river takes her, and she finds freedom. Freedom from the fear that consumed her previously. Delight in a new experience for the senses. And finally, renewed meaning and identity for herself as someone who jumps in rivers. Specifically compared to other approaches to individual or relationship work found in the field, Processwork ideas predispose themselves toward a culture of directness and fearlessness.

This bold approach creates brave facilitators who know that limits are not what they seem. I have been deeply inspired by what I have learned in Processwork. Whenever I work I’m grateful for the attitude of freedom and thoughtful structure that teaches how to exercise this freedom in a responsible and creative way. Particularly with couples, I believe it is invaluable for facilitators to hold the confidence and possibility for transcending the limits that partners perceive.

In contrast, a lot of work with threat-based emotion and arousal regulation takes a counteractive approach to working with undesirable emotional and mental states. If arousal is too high then one uses breathing exercises to lower it back to “window of

tolerance” levels. If arousal is too low then one can engage in something interesting or exciting to raise it. This is also the basic premise of a system with a functional feedback mechanism.

There isn't anything wrong with counteractive measures. Counteractive measures like deep breathing construct an environment the neurobiological system recognizes as safe, and this association with safety, or ability to return to safety can do one of several things on the neurological level. It can compete with the memory of a threat trigger or it could potentially disconfirm a threat trigger or memory. Besides this, counteractive approaches are intuitive. If a state feels bad then it makes sense therapeutically to help people feel less of it.

Processwork orients itself as far away from being a counteractive approach as is still therapeutic. Instead, one of Processwork's central approaches is to explore and amplify disturbing states with explicit experiential awareness.

Processwork deepens into states that are disturbing via exploration and amplification. While this may sound counterintuitive on the surface, the philosophy aspires to embrace all kinds of experiences with a conviction that even the disturbing ones, or especially the disturbing ones, contain marginalized ways of being that are indeed needed and worth taking time to learn about and integrate. The philosophy espouses the notion that things that disturb us are meaningful.

This attitude toward disturbing states can be a useful one when breaking down threat states. Particularly, opening latitude to explore disturbing states in a minimally pathologizing, non-confrontational way has immense value for breaking down rigid

defenses that arise with relationship work.

All this is to say that Processwork's approach to safety is neither simple nor conventional, and seldom explicit. So, if Processwork does not explicitly talk about safety, does this mean that Processwork methods do not value or support safety? Absolutely not. As discussed earlier, safety is not only a state in response to something in the environment, but it is also a state which, when activated, can adapt unpleasant triggers into something more familiar and less threatening. Sometimes the unfolding of a disturbing trigger leads to work on implicit threat memories and adapts them such that their associated triggers no longer lead to a threat event.

Processwork's method of unfolding and exploring the state eventually has the potential to transform one's relationship to the state from one that is unknown and unpredictable to one that is acceptable and meaningful. Processwork just may, in Porges' (2016) terms, create explicit awareness of implicit bio-behavioral states associated with threat and introduces neural exercises to build an expectancy of agency and competence. If this is done with a playful attitude, as is often encouraged in Processwork, then this further makes use of the social engagement system.

Safety as a Physical Reality

Within a relationship system, safety is first and foremost addressed as a matter of physical reality. Physically, Processwork does not condone violence or abuse in relationships. While conflict is healthy and normal in any relationship system, it is the facilitation of this conflict that makes conflict productive. Without proper facilitation, or when destruction is actively occurring, Processwork recognizes that a conflict becomes

unsafe.

Safety as a Process

The primary way that Processwork supports safety is engaging with it as a process. “Following the process” is for some the most important concept in Processwork. What it means is that a Processworker’s task, if nothing else, is to pay attention to the signals which give clues as to what is trying to happen next. Why is something necessarily trying to happen? Because Processwork, as a conceptual model inherited from Jungian psychology, is basically teleological. Momentary signals, particularly the ones that attract greater curiosity, are meaningful because they are signposts along the way of a process that has its own nature or purpose.

With the view that safety is a process and not a goal, we achieve safety by fully exploring, unfolding, and following something unfamiliar or unknown to fully realize the meaning in its full expression. Feeling unsafe can be experienced in the greater context of a secondary processes unfolding out of a primary one. Within the nomenclature of Processwork, experiences that are ordinary and familiar are considered a “primary” process, and experiences that are known relatively less well are considered a “secondary” process. The edge is the point of contact between the ordinary identity and the lesser known experience. The edge marks the boundary between the known solid ground of the primary process and the unknown and necessarily less comfortable domain of the secondary process (Diamond & Jones 2004; Gronda 2012). Depending on the moment this discomfort may be experienced as threat, activation, etc. Arnold Mindell (1992) says the following about following process:

Following the unwanted, unintended message goes against collective belief, which says that if you follow the unknown, it will lead you off the edge of the world. We all think that when we get to the edge of the known world we will surely fall off. But process work shows the roundness of our universe. It shows that if we have the courage to follow unintentional signals to their edges, we do not fall off, but discover new worlds (p. 20).

Embedded into Processwork is an ethic that courageously embraces and trusts the unknown. This attitude asserts that building safety is not about playing it safe and that following process is what supplants a fearful and limiting sense of security with a more free and sustainable one. Desire to maintain comfort in following process might even be considered the primary process putting up a fight against the secondary process and resisting the wholeness that is trying to emerge.

If a person or couple's process is xyz, where x represents the primary process or more known "comfort zone", y represents a secondary process seemingly antithetical to that comfort zone, and z the synthesis, or integration of the two, then the full realization and completion of this process is what facilitates safety. Only when the secondary process is meaningfully acknowledged and used do people earn their security. In this sense, safety and security is a process and encompasses many individual dynamic parts and states.

Safety as a State

While safety as a process is fully endorsed in Processwork, safety as a momentary state plays a lesser but important supporting role. Momentary safety is given importance

because Processwork theory recognizes that in any given process xyz, the secondary process can take people far from their comfort zones and they cannot take the steps necessary to fully unfold and integrate secondary material if they feel too unsafe. So momentary safety is assessed in order to provide information about how much people can tolerate so that they can be cared for and the work can be paced as much as needed in relation to also helping develop process xyz.

Safety as a state plays a supporting role because in Processwork to dwell too much on momentary states can mean getting mired in the limitations of those specific states. Most labels for a momentary experience are seen not as static, but dynamic. Amy Mindell (2006) explains:

“...[A]lthough we tend to give static names to flowing processes, this is misleading. Names such as kind or gruff or pain are, at best, momentary abbreviations for much more expansive experiences that have just begun to unfold. In fact, the way in which they do unfold may be very different from what we had imagined ahead of time” (p. 52).

From this perspective, “unsafe” is simply a word that describes a momentary experience. As such, the sense that someone may feel scared or threatened should be observed in signals and serve as feedback on how best to facilitate the unfolding process. The fact that “feeling unsafe” might be present would inform a facilitator’s pacing and negotiation of secondary edges, but is viewed as something that will pass as new states arise in the unfolding of process. “Feeling unsafe” in the context of a relationship issue can be further unfolded and give way to a process that is about, for example, further

intimacy and sharing, reclaiming of power, or setting of boundaries. Rather than minding safety as a specific momentary experience, Processwork goes further to consider it as part of a whole, and something that is achieved via following a person's process and helping someone to integrate secondary material.

Edgework and Feedback

One of Processwork's core principles is to work with the client at their edge, the cognitive, somatic, or behavioral state that encompasses a discomfort or disturbance. Typically, Processwork philosophy talks about "holding down the edge" or "working with the edge" as a metaphor for maintaining contact with the disturbing state that is subject of inquiry rather than straying back to purely comfortable grounds. The "work" that happens around the edge can be facilitated through role play; by the facilitator's modeling; exploring different kinds of grounding states; using imagination, intuition, and non-rational awareness; and many other methods depending on the type of symptom or practitioner's style. The goal is almost always to help the client experience what was originally disturbing in a novel and more expansive way and apply new meaning and utility to the original disturbance.

The edge is also more than just theoretical. There are usually quite significant sensory experiences associated with the edge if one pays attention to them. These sensory experiences is how a person either implicitly or explicitly knows not to cross the edge. This would give the impression that remaining in primary process, or what is more automatic/status quo might feel "safer". Over the years Processworkers have asserted the value of the edge as something that points to an opportunity for growth (for a review, see Gronda, 2013). Whether edgework is represented by an imperative to push the limit or

something more complex, such as a relationship between our limitations and new possibility, Processwork regards integrating what lies beyond an edge, or secondary material, with greater integration and wholeness.

Here is an example of an edge in relationship. We may identify that partners are at an edge to take more space for themselves. They may speak about themselves in terms of “we” as a more automatic, primary way of being. But others signals peripheral to their awareness present themselves such as their body language turning away from one another, suggests perhaps that within their system is also autonomy that is not embraced. Hence the place of comfort (primary process) is being more fused as partners and place of discomfort (secondary process) is being more autonomous. The two processes are delineated by the proverbial edge. In this case, just because autonomy may bring up discomfort, it does not mean that staying fused is safer. In fact, Processwork argues that not bringing in the secondary process is less safe because the inability to embrace necessary change and diversity is inherently less sustainable within any system. So, helping a couple system cross their edge to experience more autonomy would actually be a safer, more sustainable position for relationship.

This is not a hard line. The following excerpt by Amy Mindell (2006) qualifies the necessity of going over an edge:

“There are countless reasons why people will choose not to go over an edge. It may not be the right timing; perhaps it is too soon, and the person needs more time to establish a sense of safety and trust with you. Perhaps the person does not yet have enough of a pattern for this new behavior.

Others need to go slowly because they were always pushed into things in the past and couldn't defend themselves. In that case, saying "no" to your suggestion could be an important process in itself, a person's way of defending himself or herself and standing up for what he or she wants" (p. 57).

The above passage also illustrates another important Processwork concept regarding safety, that of following feedback or, in other words, paying very close attention to the effect of an intervention, observing verbal and non-verbal signals from a client in response, letting this information update the process map, and using finally refining the pacing and structure of the next intervention. A unique Processwork contribution to safety is the idea that safety is ensured through following feedback (Matsumura, 2013). This is the idea that we can't necessarily know what is safe beforehand, but this information arises from the exploration of a person or system's specific parts and circumstances.

With relationship edges Arnold Mindell has been heard to say that the safest place is not where it looks safest, at least from the perspective of the primary process, but where the primary and secondary process can be integrated. If this is done correctly then all parts are brought in and this facilitates greater wholeness (G. Reiss, personal communication, January 17, 2017). This is safer, and more sustainable because if the secondary influence is no longer experienced in a foreign or threatening way it extinguishes the power of the secondary influence to cause disturbance. So, safety comes through exact awareness of feedback and exact mapping of edges to process structure.

When Safety Is the Secondary Process

In relationship work, safety and security are sometimes mapped as the secondary process for a couple. Lane Arye offers the interpretation that when couples have stuck or entrenched patterns, these ways of being are more “known” and therefore more primary. So if a couple’s entrenched communication style is being constantly attacking and defensive with one another and they cannot seem to get out of this pattern, then this is their more known or primary style, and we can guess that a lesser known but important secondary process is one of connection and security. Arye helps the couple develop these lesser known processes first through noticing more subtle feeling experiences and communicating them, activating partners’ curiosity into each other’s state, and noticing the impact vs intent of their communication (Arye, L, personal communication, January 23, 2017).

Awareness

The above point about feedback and a dynamic understanding of what is safe dovetails nicely with Processwork’s emphasis on awareness. Kate Jobe related her experience of helping communities in Ireland which had been traumatized by violence come back together and explore how to restore a sense of safety. Jobe talked about how the community learned through their explorations that safety could not be found in rules and boundaries but only by counting on one another for the awareness of what was safe and what was not (K. Jobe, personal communication, September 16, 2016). With its emphasis on awareness, Processwork communicates the idea that the definition of safety must not be too fixed, because what could be safe in one moment may not be safe in the next.

Roles and Ghosts

When exploring safety Processwork considers the possibility of marginalized roles, or ghosts, as something that could compromise the sense of safety. Within a system are various roles, and some of those roles are not necessarily explicitly present. Those roles or events which appear to exert some pressure or impact on the current relationship interaction but are not fully embodied are called ghosts.

These hidden roles could be people (in-laws, exes), events (the wedding to be planned, vacations, last night's fight, an affair, a trauma), or personal/relational/social associations (love from a man, conflict with a woman). Ghosts can evoke positive or negative feelings and but when they have a negative influence they can contribute to lack of safety within a system because they are not fully present to be dealt with directly. In essence they have a haunting presence on the present.

Despite the name, most ghosts are not mysterious or occult at all but likely relate to implicit memories of the past which were associated with significant affective states. When a partner notes "I don't feel safe with you," in a relationship interaction, we may consider that a past event, either with the partner or in an experience that preceded the partner, is informing this unsafe feeling. If unfolded more, this lack of feeling safe might have to do with childhood experience with conflict, a previous fight patterns, or a particular topic or trigger.

In some ways, our long-term implicit memories assure us that we rarely fully live in the present. We can't help but hang out with all the ghosts of past threats, and this is especially true in relationship because a lot of significant emotional experiences happen

in relationships. When these earlier experiences were informed by threat they can get stored as memories with crude schemas that inform future experience and behavior.

Processwork names the ghosts and identifies the influence they may have over the present experience. This strategy facilitates greater ease by validating people's more marginal experiences such as their feeling experiences. Sometimes making the implicit threat trigger and influence explicit is enough to reduce its effect. Other times it is necessary to process the implicit memory further so that it can be put to bed.

Double Signals

Processwork talks about how double signals can feel irritating or unnerving even if we can't pinpoint why. The idea of double signals comes from communication theory in which a sender sends a signal with information to a receiver. A double signal is when the receiver actually detects different signals at the same time or within a short period that seem to suggest contradictory or incompatible messages.

After resolving a fight, hearing a partner say, "I love you," with crossed arms and pursed lips can cause an unsettling feeling. Part of you believes they really do love you and wants to accept the assurance, but your very quick and powerful social detection of threat might pick up that your partner isn't signaling safety and therefore unable to unlock a receptive state in you. If your partner were telling you that they loved you and their pupils were open, face relaxed but body posture open, then this would feel much more congruent.

Of course, double signals in relationships come in many stripes. A partner could agree to vacation together and then drag their feet when it comes to booking the trip.

Usually, though, in couple relationships the times when double signals feel most charged is when matters of safety and security assurance are on the line.

Processwork teaches relationship partners to unfold double signals as they appear, and especially if they are causing conflict. In essence, partners are taught to have curiosity about what signals might not be going along with their intended words and find out more about the discrepant signal. A Processworker might direct the partner to experience herself arms crossed and lips pursed again to feel into what these signals want to convey. If the partner were able to do this she might discover the signals convey “I’m still hurt,” “I can’t fully trust you,” “I resent always having to be the one to concede,” or any number of possibilities. There is no right answer. It is simply what spontaneously arises when partners open to curiosity about their incongruous or double signals.

Theoretically, building the couple’s capacity to explore this secondary information is a good neural exercise for the couple, and in Processwork terms, integrates the secondary information that has been marginalized. They might have an edge to being more direct with one another and this causes communication with more unasked and unanswered questions, which on some level is likely to cause them to feel more guarded.

Cool Spots and Temporary Resolution

As a facilitation model, Processwork seeks to help people arrive at a “cool spot” in a process, also sometimes called a temporary resolution. During these moments there is a change in atmosphere away from the heat and escalation of conflict, which is what makes it “cool”.

I think the Processwork model seeks to end processes on cool spots because

intuitively we know that it is bad for partners or groups to end in a way that is very dysregulated. This general practice to end on cool spots agrees with neurobiological principles. If partners are in the grips of interlocking threat, and this threat is not interrupted or resolved, then this state is likely to be prolonged and intensified. This makes it much more likely that the event will be stored in long term memory and create a new threat memory or reconsolidate as an existing one associated with the partner.

So, in fact, the practice of finding cool spots is one that supports safety and security. Arye sometimes calls these “warm spots” in relationship work because of the associated warmth and connection that can emerge (Arye, L., personal communication, January 21, 2017).

Metaskills

Metaskills in Processwork describes the feeling quality or attitude that a therapist or facilitator embodies when they practice (Amy Mindell, 2016). Some examples of metaskills include directiveness, groundedness, warmth, and friendliness. The advent of attention to metaskills made a large contribution to safety awareness in Processwork because it acknowledged that one cannot facilitate effective processes with people inside a vacuum without sensitive and attuned human interaction.

Without explicitly stating so, attention to metaskills is a way of regulating safety. Good metaskills helps with threat states tremendously and are indispensable tools for helping people regulate and feel okay while at the edge of their comfort zones. In neurobiological terms, metaskills encourage awareness and use of one’s attitude and social engagement system to influence another’s experience of the interaction.

Critical Perspectives on Processwork Safety and Couples

As an awareness paradigm that diligently tracks feedback to inform the correct pacing and regulation of exploring difficult experiences, Processwork should in theory account for safety. The tools we possess for working with safety are plentiful and effective. Many times these tools serve clients well. When these tools are used by a creative and competent practitioner who attends to safety and discerningly unfolds process, Processwork can deliver transformative experiences to clients.

But despite all the tools that Processwork employs to support the exploration of processes in a safe and effective way, I have regularly witnessed instances of Processwork facilitation create or allow for unsafe conditions for people. In the following sub-sections I will discuss some of these examples and discuss where I think safety was not adequately supported.

Some of the ideas and specific critiques I present about Processwork may be challenging to readers who have gained much from the paradigm and perhaps given much to the paradigm as well. It is my intention to present neither just the highlight reel nor just the blooper reel. I will attempt to describe methods and processes that portray the prevalent use and application Processwork and offer specific commentary about how they contrast with neurobiological principles.

The specific examples that I discuss in the following sections come from both live demonstrations and private sessions. In some ways live demonstrations of couple work is both a special and controversial thing. In these settings both facilitators and clients have reported that the special circumstance of working live creates conditions that are unique

and are not always replicable in private settings. However, because they are an important part of the way Processwork teaches and exhibits the work, I include examples of them here.

It is important to note that Processwork is a living paradigm. It has evolved over the years and continues to evolve, creating a body of work that is far more complex than the official texts suggest. I hope readers will recognize the vignettes I describe as fair examples of Processwork with couples. If some feel I mischaracterize Processwork theory or methods at any point then I do apologize for it now. Processwork method is as diverse as the facilitators who use it, and none of the examples I write about here can possibly describe what all practitioners do.

Awareness is Unreliable

The tools to support safety exist within Processwork. But how and when these tools are applied depends greatly on awareness and judgment of their need. As an awareness paradigm the goal is and has always been to build and practice awareness. But when threat is around, awareness itself becomes a scarcer commodity, making it an unreliable first principle from which to derive safety. I believe greater understanding of safety and the role of safety in relationships would be a good complement to the other fundamentals of Processwork, as important as awareness and following process.

Here is an example. Greg and Yvner had a long history of triggering threat in one another. Just sitting down across from one another in a public session the two men were dead silent and apprehensive to begin. The facilitator explored with them what was happening in each of them. They both said they felt unsafe. The facilitator validated each

of their experiences and named that something in the background was causing them to feel unsafe. The facilitator explored what made them feel unsafe. They both named that they had both had terrible experiences in conflict for the last few months. Ones that truly hurt them to their core. Yvner also felt nervous about being in a public demonstration.

The facilitator validated all this and did a number of things to help them feel more at ease, including slowly pacing them. Then the facilitator asked whether there was anything else. Greg stated that he was also very eager to get some resolution from the session. Picking up this new signal, the facilitator sounded friendly and offered hopefulness that the session could be productive. The apprehension lifted and they both agreed to work on the conflict that they had come there to address.

If one were to look at this work through a Processwork lens one might assess that the facilitator gave attention to important signals as they happened. The facilitator picked up the lack of feeling safe and named and validated this. The facilitator hosted the partners as one would host honored guests at a dinner party. In other words, with exquisite and effectively comforting metaskills. And as a result the facilitator successfully facilitated beyond the safety issue. Both partners organically and congruently signaled for desire to move on and work on the conflict.

The rest of the process was emotionally intense and the lack of safety never fully got resolved. They brought up the past when they had deeply hurt one another with their harsh words and inconsistent behavior. When the past was brought up the facilitator redirected them to stay with the present and warned of escalation if they continued to talk about the past. The facilitator helped them go over edges with one another, identify their

feelings instead of just lashing out, worked with great attention to detail on verbal and non-verbal signals, and pressed them for congruence. For the rest of the process the facilitator worked right at their edges, each time trying to identify what the edge was for each of them. By the end they were able to speak to one another with a de-escalated tone and even some warmth. But it looked like they couldn't really agree on their core issue and were both going their separate ways.

The facilitator wrapped up by acknowledging the couple's agony and empathizing with the pain and difficulty in their process. In the end the couple was able to go over edges and made movement along their process as a result. Both stated they felt clearer in the end about where they stood with one another.

Despite the facilitator's redirection for them to stay with the present, they both continued to bring up triggers from the past. The memory of how they trigger threat in one another remained present. Processwork teaches that when people mention the past it is either somehow also happening in the present or it is an edge to stay with what is happening in the present. In this case, the facilitator worked with it as the latter. Perhaps the facilitator decided it was where the most impactful work could happen.

When Processwork does not prioritize safety as a fundamental, and instead holds that safety is but one possible process, then it creates opportunities where even the most experienced Processwork practitioners are left to ask themselves, "How do I juggle safety, even when it appears to be an important process, with the unfolding and integration of other important processes? What is the right balance?" And when practitioners have to ask these questions without a framework that prioritizes safety then

this results in scenarios where the balance can tip in the wrong direction. In this case, safety was a concurrent part of their conflict process, just as important and not something that could be dealt with separately.

A perspective that I draw from polyvagal theory is that a nervous system that is safe and not recruiting its resources for defense is going to be much more pliable to transformation and growth. A more generous stance would be that having partners create continuous moments of safety with one another is the most expedient way towards integrating secondary information and fulfilling process xyz. Instead of (or in addition to) the Processwork view that following process leads to safety, I want Processwork to adopt the idea that creating safety makes following dynamic processes easier. With some careful systemic regulation of safety, partners' nervous systems could be more fully available for dynamic edgework, making this work more smooth sailing.

Differentiating Threat States

In addition to variable levels of awareness, another thing that compromises whether safety is accounted for in Processwork is whether the facilitator has an accurate enough ability to differentiate threat states from other things, like secondary signals or edge behavior. Some unsafe relationship work I have witnessed happened because threat state behavior was mistaken as other things, from process-related signals to edge behavior.

The example given above with Greg and Yvner could also be seen as an example of this. From the beginning it appeared that the facilitator had mapped the feeling of unsafety as part of the edge (maybe edge figure?), to be negotiated and challenged rather

than a chronic disturbance in their relationship.

Processwork is a modality based on feedback and when an intervention is made it is the client's response to that intervention which supplies clues about the developing process and informs the next intervention. Thus, being able to interpret feedback signals with accuracy and precision, or at least having mechanisms to detect errors and course correct, is a critical aspect of the modality.

Diamond and Jones (2004) name "energetic changes" as one of the main features of edge feedback, or signals that one is outside of one's comfort zone and exploring new territory. These signals include behaviors like laughter, dissociation, and holding of breath (p. 126, 129). These changes may be observed when a client is talking about something that disturbs them or something they admire. In either case the reference to external secondary stimuli creates some signals that indicate a change in emotion or physiology. Basically when we approach edges or secondary information, we find things that register as novel and create some uptick or downtick in arousal relative to a person's baseline.

Threat feedback also comes through specific signals that indicate a person is entering a threat response state. Sometimes these signals indicate an activated sympathetic response – breathing quickens, heart rate goes up, pupils dilate, and the person might appear "stuck" there. Sometimes signals indicate a dorsal motor vagal response like paling of the face, collapse of smooth muscle tone, and dissociation. Vocal prosody is also another good indicator. If the sound of their voice is somehow uninviting, either too aggressive, monotone, flat, incongruous, etc., then this might indicate minimal

or reduced access to a social engagement system, another indicator of compromised safety.

In the current practice of Processwork some of these threat signals can sometimes be interpreted as edges to another relationship process, for example, an edge to relating more interpersonally, being more direct, or becoming more detached. I believe these misunderstandings stem from an insufficient understanding and appreciation for the nature of threat states and their impact on relationships.

Gronda (2013) sees the edge as an inherent marker of something perilous to the person who experiences it. She writes that edges have a quality similar to the cartographical trope “Beyond here lie dragons!” meaning that the edge warns of something perilous beyond the confines of what is known territory (p. 71). Panic, fear, and discomfort are par for the course when working with edges.

While edges can intersect with states like panic and fear, not all edge crossings into what is unknown evoke a threat state. When it comes to working with edges, conflating threat states and edges can be a dangerous and ineffective practice. And when edge signals coincide with threat signals, they must not be lumped together. And in evaluating which one to address first the threat signals should generally be weighted with priority.

It would be useful to interpret these signals in the context of their biological basis—that both hyperactivation and hypoactivation are different manifestations of a threat activation state. In such a state, there is a biological imperative to actually not make an interpersonal approach, especially one that leads to escalation of threat. An ideal

intervention to apply when threat is activated would actually first address the threat state itself.

People are naturally quite capable of self-activation toward the kind of vitality states that are necessary to cross edges. Indeed, working out at the edge gym, as Gronda (2013) puts it, is a healthy practice to keep. But edgework requires regulated self-activation and this is best done within a context of bio-behavioral safety. Threat states introduce sympathetic and parasympathetic biases that are unregulated and poorly responsive to higher-order needs. When activated, threat states work against the capacity to cross edges. So, when threat states show up in a relationship process, they must be addressed first.

All edges represent a challenge to a known sense of self or known reality, but not all edges evoke a threat response. Threat-conditioned edges are a subset edgework. Here I'll make an assertion that in itself could be a thesis paper: that we can cross edges even when they represent a massive contradiction and threat to our known self and known reality because of an emergent condition of safety, vitality, and regulatory capacity. Edgework with these edges is part of a larger neural phenomenon of learning and re-learning what is dangerous and what is safe.

Hence, discernment between threat states and edge signals is necessary to enhance the effectiveness of edgework in both individual and relationship/systemic processes. I believe Processwork possesses many tools already to do this. It already emphasizes noticing sensory grounded signals. Any changes in energy or arousal deserve attention because they usually signal something important happening or give information about

what is not important to pay attention to in the moment. I'd like to add to this training an awareness of signals that refer to threat states, both mobilization ones and dorsal motor vagal ones.

With all of the following descriptions of signals it is important to note what deviates from the baseline of the person you are working with. In other words, relative changes are more important than absolute behavior observations. Some people very naturally have a narrower range in the tone of their voice. Others have very little expressivity in their faces even if they are very engaged.

Conceptualizing the relationship between edge states and threat states may seem like just a theoretical exercise. Obviously in real practice many things are happening at once, and threat states can be born in and out of existence from moment to moment, moving with the dynamic interplay of circumstances and relationship. But being able to accurately distinguish threat states and appreciate their consequences on relationships will have real impact on the way that we understand and work with relationship processes.

Underestimating Threat States

At times I have seen people successfully complete processes but end in a state of threat that still lingered in one or both partners, and as a result did no favors for their relationship.

In one instance, I witness a facilitator help Dee and Ruben with their relationship conflict during a seminar demonstration. The process pointed to Dee's edge to really stand up for herself and set effective boundaries and Ruben's edge to reveal himself in a

more vulnerable way. Early on Dee began to display very dysregulated behavior and confusion, characteristic of a dorsal vagal shift. Ruben was also affected by this, evident by his own flat affect and frozen appearance. The facilitator helped the couple through their conflict by encouraging each partner to follow their secondary processes. The facilitator was able to pace, regulate, and model in a way that allowed Dee to successfully set a definitive boundary and allowed Ruben to experience verbalizing more vulnerable feelings and realities. In many ways it was a successful process. But after it was over, it was clear that Dee had not recovered from her threat state. She appeared dissociated from present reality and was unresponsive to people trying to speak to her. The facilitator was ready to move on to the next thing in the seminar setting.

In my experience, examples like this one are not an anomaly in Processwork settings. They have happened in both public demonstrations and private sessions. The problem with the example above is that the partners may have done the work to cross their edges, but they felt fundamentally unsafe and unsupported by one another to do this. They may have felt more support from the facilitator than they did their own partner. And these experiences don't strengthen couples' relationships. They reinforce the idea that in relationships, one can capably cross edges, but is fundamentally alone and scared in doing so.

One might argue that something was simply missed. After all, why didn't the facilitator notice Dee's signals and distracted state? Why didn't the facilitator pace and regulate better so that Dee could have had a more congruent experience around her edge? Maybe the facilitator missed altogether that the process was about relationship trauma and safety rather than the other relationship edges? Was this a sub-standard application of

Processwork theory? Perhaps.

On the other hand, it could be argued that the example above was not sub-standard at all. I think at least some would recognize the relationship process above as faithful to Processwork theory, if not every facilitator's style. After all, even if the work was not perfect, the couple did get to work on expanding their awareness and capacity of their relationship edges. And as a long-term edge, Dee would have to continue work on this process in the future anyway.

The issue might not be whether it was good Processwork and more the issue that Processwork holds the perspective that momentary states come and go, and does not apply the same gravitas to threat states that neurobiology does. In effect, this perspective might contribute to examples of Processwork facilitation which miss the overall significance and effect of threat and residual threat on relationships.

I don't know which interpretation is more accurate. But I would like to see Processwork account more for safety as a state rather than assuming it will be taken care of as a function of following process. Studying safety on a neurobiological level presents a clear perspective on how problematic threat states are in non-ambiguous terms. Short of an actual crisis or emergency, being in threat states for extended periods of time is not good for relationships. The attitude that xyz is the process and following the process will foster the safety and growth of individuals and systems is revolutionary, but not enough. I want the Processwork paradigm to also be able to look at states along the way and assess how conducive those states are to supporting safety and hence the potential to go further in fulfilling process xyz.

Insufficient Development of Interactive Regulation

Another critique about Processwork's approach to safety in relationships has little to do with theory and more to do with observed practice. The critique is this: with the exception of practitioners who have paid deliberate attention to interactive, or systemic, regulation, facilitators are often central to the regulation of safety rather than creating this possibility within the couple system.

Trent described a couple session he had once with a Processworker. The entire hour's drive to the session he and his partner argued. By the time they arrived Trent described himself as so "far regressed" in an altered state that he could not speak. The facilitator tried different things with them without much positive feedback. Eventually the facilitator went to Trent's side and said (in the role of Trent), "I'm just a child. You're mean." Finally, this eased Trent. Next the facilitator went to the partner's side and said to her, "You look so angry, there must be a figure behind you. I sense something abusive oriented behind you." The partner also eased. She acknowledged that she was abused as a child by her father and when their conflict grew intense she got into an abuse mindset.

Trent was grateful that the facilitator was able to flip them both out of their threat states and even gave them an opportunity to process the trauma in the background of their relationship. However, Trent also noted that it would be years before he learned, outside of Processwork therapy, how he and his partner could flip their own or each other's threat states rather than rely on a facilitator to do this.

Another example was given by Eve. Eve and Mila had very different temperaments. Eve was fiery and reactive while Mila was even-tempered but easily

scared. When Eve reacted to something about their dynamic with anger it frightened Mila and sent her into a withdrawn threat state. Eve experienced this as an abandonment and this would enrage her even more. In a couple session exploring this dynamic, a Processworker first tried helping them to explore the secondary energy of this fiery state. This received negative feedback from Mila, as it was just too intolerable for her. So, the facilitator suggested that Eve could try expressing her nature in the confines of another room, where it could be tolerable for Mila. Both of them readily agreed to try this strategy.

It would seem that the facilitator brokered an acceptable compromise where both partners could be themselves without triggering the other too much. It seems reasonable that this would also satisfy the secondary process of taking space and distance. However, this solution again misses the opportunity for the couple to face the challenge of learning to build safety with one another. It reinforces the message that space should be taken, not because it is good to take space, but as a solution for when the partners find one another intolerable.

The idea that the system can itself learn new patterns to support its own process of safety is entirely compatible with Processwork theory. I'm suggesting now that it should be the gold standard. The idea is that we can further refine practices and interventions so that they put the focus, awareness, and learning back into the system rather than use the facilitator to give the couple new experiences. Going over edges is just one kind of learning for a couple. Learning about one another's threat and safety states and what to do about them is another type of awareness that is just as important.

Safety as a Discrete Process

The last point that I want to make with regards to how Processwork misses safety has to do with the seemingly discrete way that safety processes are viewed. Safety is given elevated importance when it holds particular relevance as a process that the couple is working on. This sends the message that safety is a feature of diversity, as in, “Some couples need safety addressed, sometimes, if it is their process.” So there is a way that the importance of safety is contextualized and only becomes important if the process points that way. For example, if a couple were stuck in an attack and defense pattern and didn’t know how to recognize the signals in their relationship that indicated more care or safety was needed.

Neurobiology and polyvagal theory in particular, on the other hand, sees safety as a fundamental, not to be divorced from any relationship process. Neuroception is always scanning for potential social threat in people’s voice and body cues so safety and implicit threat/trauma can attach themselves to just about any relationship process and content. To lose positive social connection even for a moment can be threatening because we are fundamentally built as social creatures. So if this underlying process isn’t being managed, problems are bound to arise.

At times practitioners may marginalize threat states in couple work because they were more focused on other aspects of the unfolding process. The paradigm never instructs to ignore safety, but when it insists that safety is but one potential process, it leaves practitioners having to pick and choose which process is the most important in the moment. If we were to take the neurobiology seriously, we might revise this view. Safety is not an edge or process per se, but an issue that can underlie any kind of relationship

process and content.

Some Processworkers do pay special attention to attachment and security processes when working with couples because of the prominence with which these issues come up. But this is more a function of the specific practitioner, how they map the process, and which signals they choose to unfold. And even in these cases safety is treated as a distinct process, discrete from other ones.

Fairly commonly though, I have seen more examples like the stories told above where fallible awareness, misappraisal or underestimation of threat, too much focus on facilitator-centric interventions, or some confluence of these factors, has created the conditions for couples to be insufficiently supported with threat-related disconnection in their relationship processes.

The analogy of climbing comes to mind for working with threat-conditioned processes. Climbing requires a coordinated effort based on practice, technical knowledge, and strategy. But even more basic to all this is climbing safety, which is the creation of conditions that make climbing possible, i.e., the habits and actions that ensure safety from beginning to end, built in to every knot, movement, stride, and verbal communication. Following process and the art of awareness in couple work is akin to the more technical aspects of climbing. But they alone are not enough to ensure safety. For that we must also turn to an appreciation for all the built-in safety checks that come with the sport. Safety checks are useful for novices, but experienced and aware climbers need them too, simply because of the recognition that human awareness is fallible and mistakes are costly.

It is the management of safety that lays the foundation for all climbing to occur.

And as climbers, it is our implicit and explicit agreement that safety comes first which creates a safe container for the sport. Safety lessons and skills can't be an afterthought. In order to support growth and development they must be integral to the method.

When it comes to intimate relationships, we may not die from a bad experience, but when bad experiences persist they are hardly forgotten. We are reminded each time an implicit threat memories trips up our bio-behavioral alarm bells again and again.

Lack of integration of safety as a fundamental creates a sense that the need for safety is unpredictable and so addressing it becomes reactive rather than proactive. I'd like to suggest that the need for safety is not relative or unpredictable. Just as physical risk and safety issues are innately a part of certain sports and need to be managed, threat states and security breaches are expected events in relationships and need to be managed.

Interactive threat states are part of how our interpersonal neurobiology is set up. Safety and security are communicated through social cues and when one person detects threat in their individual system this initiates a series of bio-behavioral reactions that have a threat domino effect socially. When partners trip one another's threat circuits interactively, what happens in the bio-behavioral process undermines any relationship process that is between them, whether it is a process to be more direct, to be more feeling, to take more space, to set clearer boundaries, self-disclose, etc. Taking time to build in safety is not playing it safe, it is setting up edgework for smoother sailing and greater success.

Ultimately the movement of relationship processes and quality of connection that partners are able to make with one another is beholden to safety being present. Safety can

and should be addressed as a fundamental within the Processwork paradigm, and especially with couples and relationships because of the inherent social nature of threat signaling. If we saw the need for safety in relationships as inherent rather than contextual then we could specifically design interventions for going over edges that also have systemic safety in mind.

Of course, relationship work is not only about spending less time with one another in threat states. Beyond this Processwork offers creative methods for working with roles, rank, and so much more. And threat states do not always emerge in relationship processes if they are already managed well. Nevertheless, it's my firm belief that underpinning all couple and relationship work with an awareness of safety will have a great impact and make facilitating relationship processes easier.

PART III: How to Work with Threat in Couples

Couple work presents both interesting challenges and resources for working with safety. Thus far I have explored the specific neurophysiological condition of threat and the social contexts that escalate or de-escalate it. Threat is a bio-behavioral state and exquisitely sensitive to relationship interactions. I believe the lesson is that working with threat states requires the restoration of safety. And within the context of enough safety is where most exciting interpersonal possibilities exist. What helps people cross their edges in relationship is if it feels safe enough to do so, and creating this sense between couples must be a collaborative effort.

Sympathetic threat states may be good for mobilizing mothers to rescue their children from burning buildings, but in intimate relationships such states don't accomplish anything good. And the presence of parasympathetic threat states, or even the residual of such, can be equally damaging and unfavorable to thriving relationships.

Restoring safety in relationship can be as simple as shifting one or both partners out of threat states and into using the social engagement system. All this is in the context that in a two-person system it is not feasible to look solely at one partner or consider one bio-behavioral entity, or even one bio-behavioral entity at a time. The partners interacting form a system, and it is the functioning of that system that deserves attention.

Being in defense states compromises partners' ability to think clearly, creatively, and communicate effectively to one another. In this way, defense states are troublesome and need to be worked on. How to work on troublesome states is an area where Processwork differs from many other psychological modalities.

The problem with threat states is not necessarily that they take place in the upper or lower registers of arousal. According to polyvagal theory, it is specifically that the lack of ventral vagal tone makes it difficult to modulate arousal in a dynamic way, which means that people get “stuck” in high or low arousal patterns in a way that runs counterproductive to relationship collaboration. So, the goal of threat state work in relationships is to restore safety and the functioning of the smart vagus in at least one partner in the couple, which ultimately allows for more spontaneous social engagement. If arousal modulation is part of the plan, then it should be a means for restoring security in the system rather than an ends in itself. In practice with couples, I believe this means that when threat states are prevalent, the goal is to work with the security of the system.

Working with threat states can be framed in many different ways. There is no one dogma or method that works. More research is needed to discover the intricacies of how to reduce the negative effects of threat states in relationships. In this section I offer some possible ideas that have worked for me in practice and some things that I suggest clinicians think about or try.

Assumptions

I believe the body of work on threat states, contingent implications for social engagement capacity, and the impact of all this on relationships is meaningful. But exactly how it is meaningful is still left to interpretation. As I interpret this information I am aware of a number of assumptions that I make and premises that I hold.

My first assumption is that with intervention threat states can be managed. One person under threat makes it more likely anyone closely interacting with that person

might fall under threat as well. And if two people fall under threat, then absent intervention or interruption, this situation is a recipe for escalation and compounded stress on both partners. Some couples run into more scenarios of compounded threat than others. But I reject the deterministic idea that this is inevitable and cannot be managed.

Second, due to the elaborate and decentralized nature of psychobiological threat systems, there is no master threat regulator beholden to a single source. Hence, effective methods of restoring safety do not necessarily look one way (for example, solely using counteractive measures). Effective interventions may encompass the promotion of self-regulation or encourage the couple to regulate one another. Interventions can be top-down and use cortical reasoning to down-regulate threat response in emotional, autonomic, and neurochemical functioning. Other times interventions will be bottom-up and use somatosensory cues to down-regulate emotions and signal safety to the central nervous system. Sometimes an intervention will involve language and other times not. I will try to point out some things that generally do or do not work, in my clinical experience.

My third basic premise is that because we are working within a relationship system, the approach to intervention must take into account the functioning of both the system and its parts. Therapy should construct ways for couples to regulate their states as a system. By and large, threat states in couple dynamics are systemic issues that also require systemic consideration. Threat states are defined here both in bio-behavioral terms and relationship system terms. This means that threat states do not simply “belong” to one partner and need to be “fixed” by that partner so as to keep things clean and not sully the relationship with unnecessary projections and baggage. Individual self-

regulation is an important aspect of threat state work, but its use must be both evidently good for the individual and good for the system. Moreover, efforts to self-regulate would ideally not reinforce an implicit representation that the significant other is not available or willing to provide care and regulation.

Mistakes I've Made

This section highlights some mistakes I've made in the past working with people in threat states and what others can do to avoid them. These are especially applicable when people are displaying clear markers of being in an active threat state.

Save the Teaching Moment for Later

I've found psychoeducation to be a useful tool for work with threat states and couples. Learning about threat promotes regulatory frameworks, stimulates motivation for new patterns, and can give people a sense of agency over their lives. But one mistake I have made in the past, and continue to see others give advice for is trying to teach a partner something new when they are in a threat state.

When people are in threat states, their memory and attention systems are highly keyed into learning what else could cause them threat or harm. During an active threat state people do not learn well. I surmise that the recruitment of metabolic resources for threat strongly incapacitates the curiosity and memory access that is involved in non-survival oriented learning. Calling upon people to access information they already solidly know is far easier than asking them to learn something new.

In very active or acute states of defense, when a couple is entangled in inadvertent escalating states and are not evidently able to regulate themselves via their own thought

processes, breathing, movement, and other bottom-up interventions for restoring safety may be more effective. This is because top-down mental processes require more energy and can actually stress people out more when they are asked to think and process in this way.

In response to active threat states, the first goal is relief, or a way to turn the alarm off and return to a state of safety. Then, when there is more sign of recovery from the threat state it may be more relevant to introduce psychoeducational and other top-down constructs for people to grasp and better understand their experience.

After any acute threat response has subsided is the best time to utilize psychoeducation and reinforce safety with top-down strategies like helping people to identify their emotional processes, suggest strategies for self-regulation, etc. This helps develop vertical neural integration between basic primordial experience and higher cortical areas, including language centers.

Don't Go Conceptual

In the moment of acute threat, do not talk hypothetically or use very conceptual language (i.e., tell them it's about their high dream, frame conceptual differences between the partners, etc.). Do use words that don't require a lot of cross-referencing with higher cortical areas to be understood.

Short, pithy directives can also be used to redirect them to use with one another for the purpose of co-regulation. These phrases might be: look at her now; keep your eyes on each other. The use of simple directives such as: stop, pause, take a breath, and the like also help direct attention to where one might more likely find safety. Use very simple

language that bypasses higher level thinking.

Asking questions during these states is best if the question requires few working memory resources. Short phrases and directives with one idea are more likely to be understood than longer, more complex sentence structures. Threat states can severely limit the amount of resources for processing a person has in a given moment. To use more complex sentence structure calls on cognitive resources that are already scarce in the moment, which usually raises threat.

Don't Rely on Thinking or Self Report

Errors in attribution are characteristic of threat states. Be wary of taking explanations and attributions at face value when people are in threat. What people say about what they feel and why they feel that way is often inaccurate because threat states are associated with more distorted memory systems, judgment, reasoning, and ability to assess what is happening in the body.

What Processwork calls the primary process, or who we believe ourselves to be, involves more automatic, quick-acting thought patterns. Behavioral psychologist Daniel Kahneman (2013) offers the following about this system of thinking:

You may not know that you are optimistic about a project because something about its leader reminds you of your beloved sister, or that you dislike a person who looks vaguely like your dentist. If asked for an explanation, however, you will search your memory for presentable reasons and will certainly find some. Moreover, you will believe the story you make up.

What Kahneman describes is something we have known from the early days of Gazzaniga's split brain experiments and from observing memory loss patients. When there are gaps in memory we simply make something up and convince ourselves that it is true.

Threat states closely overlap with the emotion we circumscribe as fear, but, "Are you afraid?" can be a question with limited immediate value. Even if people do identify with being afraid, they may not know why they are afraid. So when asked, people might just as likely present a confabulated response as they are to accurately explain what triggered them.

Additionally, fear as an emotion is primarily a conscious, cortical process that takes its cues from more visceral processes. As such, there are varying degrees of subjectivity. Some people can identify their body's defense state signals and interpret them as fear. But for another person such a question may conjure up a pattern of scary movies and roller coaster rides. The label of fear just may not "fit". There is a diversity of experiences that people identify as fear and even wider disparity of ideas about what should happen in response to that fear. Basically, people may not necessarily have the vertical integration capacity to identify threat states as fear, and what people do identify as fear may have little overlap with threat states. The subjectivity of this makes dialoging about it when someone is inside threat not particularly helpful.

Threat states are not nearly so subjective. A threat state has psychobiological markers and tends to behave in predictable ways within relationship dynamics. It does not require the confirmation of conscious thinking or understanding. People who can

consciously identify their own threat states and manage them are the exception not the rule. Developing more awareness and vertical integration of these states by processing them with language and cortical centers certainly contributes to better regulation and relational regulation of the threat states, but it's not the only way.

Instead of relying on thinking and self-report, both therapists and partners can learn to read basic psychobiological threat markers when doing relationship work. Being able to identify threat states in real time and knowing how to respond to them gives therapists and relationship partners a huge potential response time advantage over having to confirm them by self-report.

Social Feedback

Awareness of what is happening with oneself and one's partner, as functions of what is happening with the relationship system, is of utmost importance. Without good feedback monitoring a couple system cannot manage itself.

Humans are undisputedly social creatures, and we are wired to pick up on subtle face, body, and auditory cues when we are in the presence of one another whether we like it or not, whether we are aware of it or not. Through faces, voices, and bodies, relationship partners are constantly providing feedback to the relationship system and monitoring this feedback in both a conscious and subconscious stream. This means, short of social-emotional deficits directly impacting the social engagement system, we have incredibly sophisticated network apparatus for the detection for one another's states.

Some researchers and practitioners have come up with the idea of using feedback instruments in conjunction with relationship therapy to provide partners with real-time

feedback about the state of their own nervous systems and their partner's. These instruments measure things like perspiration, breathing, and heart rate variability (a close measure of ventral vagal tone) and help couples to better understand their reactivity, ability to recover, and effectiveness of efforts to soothe each other (Kassel & LeMay, 2012).

Ultimately it is my opinion that the best feedback apparatus we have is the one that we are born with: our social engagement system. With this sophisticated, and mostly sensitive built-in system, feedback devices, such as ones that monitor heart rate variability (the best measure we have for ventral vagal tone) may not be necessary at all. What is necessary, however, is more refinement and awareness of how these systems operate. Both the use of monitoring devices and one's own social engagement system necessarily require a learning curve, but only the latter is portable, free, and self-powered.

When it comes to threat feedback and monitoring, generally this instrumentation is operating outside of our awareness, at rates faster than the speed of conscious thought. Iris and Tom were a couple that demonstrated this. They bickered constantly and triggered one another into patterns of threat and activation. In session when Tom asked her a question, she would answer, and then he would completely forget what he had asked in the first place. His forgetfulness signaled disregard for their social exchange and sparked outrage in Iris (she launched into a mobilized threat response). She exclaimed, "He does it on purpose! He's smarter than that and I swear he does it to annoy me!" From the looks of it Tom probably had not intended to annoy Iris. It was not clear at that point why Tom had forgotten. But because his errant social behavior triggered her threat so quickly, she could not access a more benevolent or accurate interpretation of his

behavior. And in turn, her aggressive manor signaled to him that she was on the attack so he began to attack back.

After using some bottom-up safety interventions to bring their threat level down, I began to work with them to tune their social feedback systems.

I ask Tom, “How much control does she have right now over her reaction?” Of course, I want Tom to notice that her threat response is reflexive and that she has little awareness or control over it. Ideally I want him to notice this now, in the moment that I am prompting him to think about it, even if he has never noticed or thought about it before. I want him to notice how her face flushes, how quick the reflex is, and how her voice modulates to an attack mode. I point these things out and work closely with him to notice and appraise these cues. If there is any doubt, I point out that, “People don’t generally will these changes. They happen because their nervous system detects threat somewhere and automatically rounds up defenses. She doesn’t control it to happen.”

This generally only works if the couple is also looking at one another and really paying attention. Otherwise they are more likely to make appraisals about intention from memory, often biased with a negative lens. But if the couple can actually be present, it becomes more difficult to apply their own projections and negative memory biases.

After establishing minimal malevolent intent, people generally become more open and have access to more empathy for their partner. Then I can invoke questions like, “Do you want to help her with that?” and “What do you think is most helpful when she shuts down like this?”

In Iris and Tom's case, it would be equally important to then explore the original signal that triggered Iris' threat, Tom's forgetting. In this sense, I might work with Iris on her appraisals of this behavior, exploring with her, "Does Tom have any memory problems?" "Does he lose track of what he is doing often?" "Why does he forget?"³ These questions are meant to spur Iris' curiosity about her partner, explore more accurate appraisals of Tom's state, and also perhaps assess for any cognitive or emotional conditions and deficits.

It might be worth noting that this exploration of Tom's signal of forgetting differs somewhat from a more typical Processwork style which would ask Tom to explore his own signal through various methods of amplification. But ultimately the intention is not so different, as both encourage more awareness of what is happening in the system.

Security Co-regulation

According to polyvagal theory, when safety is communicated via expressed markers of social engagement (e.g., facial expressions, gestures, and prosodic vocalizations), defensiveness will reduce (Geller & Porges, 2014). In ways that have already been discussed, the social engagement system turns on spontaneously when people are safe with one another. But social interaction is not the only variable affecting ventral vagal tone. Rather ventral vagal tone changes with a great number of factors, including illness, time of day, etc. (Porges, 2016).

So, partners will inadvertently violate mutually agreeable habits of social engagement in the form of turning away from one another while speaking, speaking in a

³ This style of cross-questioning is taken from Stan Tatkin's work with couples. See Tatkin, 2016a.

low-pitched, monotone voice, or avert eye contact, not due to threat, but due to weariness, habit, familiarity, social skill deficit, or because we live in a 21st century culture of unrelentless mobile devices.

During conflict even small signals like turning away, lack of facial expressivity, or a flatness of vocal tone can signal threat and set off a reciprocal response. Committing these social engagement missteps doesn't always result in a conflict, but does make it more likely that a partner will have their feathers ruffled before the night is over. Add to this any conditioned threat memories of past attachment or relational experiences and potential for old traumas to be triggered, and the odds for threat escalation goes up again. Due to the nature of threat memory, threat activation, and the coupling of our autonomic state with that of our companion via social cues, couples are bound to signal threat to each other.

Raising partners' awareness of how their poor social engagement habits may be unintentionally thwarting connection and security in their relationship can be very straightforward. I might remark to an oblivious partner, "Her nervous system can't tell the difference between your looking at your phone because you are interested in an article or your looking at your phone because you are uninterested in what she has to say. It just comes off as threatening, especially if she is wanting something from you."

Even better, it's incredibly rewarding to be able to teach partners how to use their social engagement systems to their benefit toward influencing a partner's nervous system. A central question I work with in couples is this: Does the couple know how to trigger safety in one another? Do they know how to catch each other when they bottom out into a

threat state and return to safety? Do they then know how to trigger positive emotional states in one another? Whether this is easy to do when both partners are in threat states is another question. However, it definitely can't happen if the couple does not know how to do it in the first place.

Threat is triggered socially but so is safety. Safety co-regulation builds on this principle and uses the social engagement system to establish or re-establish trust and safety. Safety co-regulation is about consciously recognizing your partner's threat states in real time and implementing certain safety principles in relationship which minimize the threat response and encourage safety and social engagement to come back online.

Porges (2016) characterizes turning off defense states as activating the love code and enabling a mutual state he calls "immobilization without fear". According to Porges, the ability to immobilize without fear enables safety, trust, and love. It is evidence to our nervous systems that we are safe in the presence of another. Immobilization without fear is basically a parasympathetic-leaning state involving the release of oxytocin to foster connection and the sense that it is okay to be physically still together and still feel safe. This is similar to the "quiet/alert" state that Tatkin writes about. "The quiet/alert state allows us to be in repose with another person, relatively free of anxiety or boredom. Mutually shared parasympathetic states form the basis of long-term romantic relationships and are a hallmark of secure primary attachment relationships" (Tatkin, 2016c, p. 85).

Other mammals experience this state too. Cats communicate that they feel safety and trust by closing their eyes around other cats and sometimes burying their heads in the

laps of their trusted human. For humans the task of mutually constructing immobilization without fear is accomplished through communicating safety in social engagement: head tilting, prosodic intonation, etc. and developing other friendly contact (Porges, 2011). When we detect these behaviors as emerging spontaneously and authentically from a partner who feels safe in themselves, it is hard to resist their disarming effect.

If relationship threat states are defined by the removal of safety via the introduction of a conditioned or unconditioned threat stimulus and amplified through threat-correspondent social cues, repair is the restoration of safety, not only by lifting away the threat stimulus, but by specific face-to-face, skin-to-skin, and/or vocalized behaviors.

Learning to use the social engagement system is like learning to play an instrument. Most people walk around without much awareness of what a powerful and influential instrument their social engagement system is so the operation of it is almost completely subject to autonomic influence. With some awareness and practice, this does not have to be the case. Co-regulation for each couple is unique. There are principles that apply across the board, such as sounding and looking friendly, but beyond this each couple will determine their own processes and paths for how they regulate one another.

Because developing the capacity to co-regulate involves a larger or smaller degree of learning for each couple, it is ill-advised to introduce these ideas, or any information for the first time, when people are in active threat. But once learned, consciously practicing and amplifying optimal social engagement skills with a partner is good standard practice, especially if a partner's needs and requests, implicit or explicit, are

involved.

Interactive co-regulation is one of those ongoing tasks for couples that does not always prove convenient for people as individuals. But it is necessary to protect the relationship system from the consequences of uncontained threat.

Couple relationships are different from other types of relationships, even other types of quite intimate ones, because in other types of relationships people commonly move in and out of the relationship space as they desire. For long-term couples there is an assumption that the couple operates quite closely as a system until they decide to divorce, separate, or break up. In couple relationships where the dyad system is the default, the imperative to operate well together can be either a very meaningful incentive or a couple's downfall. This is why partners can be prompted, even expected, to provide for one another in ways that are not always convenient or second nature to them.

Verbal

Sounds can trigger implicit threat memories quicker than other kinds of sensory input (Tatkin, 2013b). Tone of voice and vocal prosody are important features for establishing a level of safety in social engagement. For both these reasons, it is important that partners can attune to the quality of their vocalizations when dealing with one another.

Verbally, partners can co-regulate safety in a bottom-up way by using language itself. Language that “speaks” to relieve threat circuits is short, directive, and does not take a lot of cognitive resources to decode. Phrases partners can use with one another include: I’m here; I care for you; you’re safe now. Phrases like these are simple and

concrete enough to communicate safety and security to a nervous system that is on high alert.

Just as therapists need to learn to use verbal language in a non-threatening way, partners too need to be taught to be speak more concretely and simply when their partner is in a threat state. And, of course, these phrases mean little without the paralanguage of safety to pair it with. Partners should be expected to be able to use a soothing tone and benevolent attitude when attempting to co-regulate.

Another good use of verbal co-regulation is taking stock and responding to security questions with secure answers. This idea I borrow from Tatkin, whose take on security questions is a very useful one.

Tatkin explains it like this: if a five year old asks his mother, “Am I going to die?” the correct response which provides security is, “Oh, honey, you are going to live a very long life.” It is not inaccurate to say, “Yes, everyone dies,” and in fact, some people do talk this way to five-year-olds. But it misses the point and will likely create more anxiety and fear in the child. The question is not a reality question that engages the rational centers of the brain, but rather it is a security question which is a bid for reassurance and is asked because one is already unsure and frightened. The reality-based response, that everyone dies and that people can die without warning at any time, does nothing to soothe the asker or meet the purpose of the question (Tatkin, 2013a).

Joseph Campbell called marriage “another mythological plane of experience” (Campbell and Moyers, 1991, p. 6). Security questions really underscore this point. There is another reality within couple relationship systems that does not always match up to the

greater consensus reality. The couple relationship is a world unto itself just like each person is a world unto themselves. And to be part of a couple relationship successfully means to construct this world so it is satisfying to be in for all parties involved.

Necessarily, that satisfaction is sometimes derived from marginalizing one aspect of reality in favor of another.

Explaining the concept of a security question to a couple may sound obvious and basic, but in my experience the effect has been profound. Especially for partners who tend to think rather concretely and do not immediately pick up on social cues around emotional vulnerability, the framing of security questions as such helps cue them to respond to these questions with security rather than factual reality.

Working with Ben and Jill illustrated this point about security questions. Ben and Jill were exploring an open relationship for the first time. Their communication was rather open on the topic with a lot of honesty and mutual support. It was clear that they were both very committed to one another. But Jill experienced more threat around Ben's desire for other partners. She had asked him numerous times, "Are you going to fall in love with someone else and choose them?" Each time Ben had responded something to the effect of, "It's possible, I guess," and, as one might imagine, it never ended well. When she asked this question in session again I asked Ben to consider hearing it as a security question rather than a reality question. Somehow this framing finally made sense and gave him a way of understanding what she wanted. I had him look at her in the eyes and try different responses to gauge how effectively each could trigger an increase in bio-behavioral safety. When we landed on, "You will always come first," that was the one that finally relaxed her whole body. As he said these words with presence and relaxed

authenticity it relieved the threat she felt. I asked Ben if he noticed her response. He was touched by how affected she was. I also immediately asked him if it was true. He stated emphatically, and believably, “Yes.” She seemed again pleased.

Face-to-Face

Turning partners toward one another and using well-timed directives for them to look into one another’s eyes and faces is a simple but essential. Couples often do not look at one another when they interact. Even when they are facing each other, the propensity to look away, look down, etc. is common. This tendency to look down or away keeps people relating to the internal representations of one another rather than gather data and feedback from each other in real time. Once we get to know someone or something we tend to create an internal model of it and stop paying attention in real time. When this happens we can either fail to notice things about our partner that are important or operate from our memory of them rather than their present state and behavior.

The more a couple looks away from one another the more likely they are to relate to one another from their internal projections and representations of their partner. These internal projections and representations contain an important world of implicit memories, some of which contain threat. And the more they have and operate from these implicit memories the more they are likely to get themselves in trouble and trigger threat in one another because the internal representations are rife with error and inaccuracy. They get in trouble because they miss the relational feedback in real time.

People avoid eye contact often because it can be very stimulating. This is why babies look away when they are over-stimulated and why people who are being deceptive

typically can't look you in the eye. If one or both partners in a couple cannot sustain eye contact, this can become a problem when it comes to threat state management. There simply is no better way to monitor threat in a relationship system than paying attention to one another with open eyes and ears.

Tatkin teaches partners to really pay attention to one another by asking moment-to-moment questions that require tuning in to the present and engage working memory systems to explain what is happening with their partner. Questions like, "Does he look trustworthy to you?" help to ferret out any implicit memory-driven biases and projections so that they can be worked with.

Face-to-face contact is also valuable during moments of conflict. Having visual cues of someone's face is usually a prerequisite to being able to see signs of de-escalation. Often slowing down the fight interaction and having partners make eye contact in silence relaxes their nervous systems.

In fact, when two partners have triggered one another in threat while in session, sometimes neither partner is able to regulate their own threat state enough to actively engage safety to any degree, in either themselves or their partner. When this happens I have asked the couple to look into one another's eyes without talking. Sometimes this pause will bring enough regulation back to continue to build capacity for more safety and repair.

If maintaining eye contact is difficult and escalatory for one or both partners then this is worth exploring further. Eye contact is a powerful tool for a couple's mutual safety regulation and should ideally activate immobilization without fear.

If partners do not feel safe when they face one another then this is worth further attention and assessment. If the face-to-face with eye contact does not subdue threat then the effect is probably not neutral but threat enhancing. Gaze aversion and head turning can signal deception or abandonment to someone attempting to make more eye contact. The gaze averter may already be activated by threat, even if it is subtle. And if not, then they are likely to be operating from automated ideas of the partner, a veritable collection of long-term implicit and explicit memories of them which could include both negative and positive projections. It would probably be valuable to explore these projections with such a couple.

Touch

Face-to-face and eye-to-eye contact is an important tool to establish safety after discord or threat. Once two people can be immobilized without fear then face-to-face contact is no longer necessary (Porges, 2016). Beyond seeing and hearing, touch is an incredibly powerful way for couples to regulate one another's nervous systems. Studies show that having a hand held by a partner neutralizes activation of behavioral threat systems (Coan, Schaefer, & Davidson, 2006).

Partners can also try touching one another on the lower back, going forehead to forehead, or holding one another in ways that promote safety in their system. Sometimes it is important to work on sculpting these positions with them and teach people to read their partner's feedback.

I once worked with a heterosexual couple, Linda and Ira, who had been married for twelve years. It was notable to me how infrequently they touched each other. They

assured me that at home they had sex and spent time cuddling, but in the session they appeared apprehensive just to be sitting face to face with one another. They had difficulty maintaining eye contact. When Ira looked at Linda she seemed to look away, and vice versa. When I asked Ira to reach out to take Linda's hand to offer comfort the interaction looked physically awkward. Ira appeared timid and Linda's nervous system seemed to activate with jerky movements and eventually led to her pulling her hand away.

I explored with them how and when they touch one another. They both enjoyed back and shoulder massages so I had Ira give Linda a back massage. The massage revealed that Ira was afraid of hurting Linda. Two years prior Linda had major spine surgery. The recovery process was long and slow with a lot of pain in and around her neck. The surgery had left a large scar there and too much or the wrong kind of pressure on the scar had in the past triggered painful migraines. Understandably, but regrettably, Linda had internalized some fear about being touched the wrong way and Ira had internalized fear about touching her the wrong way. This dynamic looked like it had globalized far beyond just the neck and scar.

I asked for permission to work with them around exploring touch with Linda's scar. Both agreed. We found a comfortable position with Linda laying down. I showed him how to cradle her head so he could feel any tensing up as feedback. I pointed out other potential signs of negative feedback such as squinting and other muscle tension, tightening in the jaw, or flinching. Along the way I pointed out the good feedback: deep exhales, deep-throated groans, smiling. I peppered the session with regular intervals of questions to Ira about what verbal and non-verbal feedback he was getting from Linda. As Ira made direct contact with the scar and began stroking Linda flinched. Ira said he

thought it was just a twitch. I gently corrected him; the movement was in fact a defensive flinch, probably fear related. I directed him to return to a still cupping position on the scar until he felt her relax again.

This exploration was important because in order for the two to feel safe with one another Ira needed to not feel like parts of Linda's body were mystery zones. It was important for him to know what to do when he was in those areas. In order to do this he needed to learn how to engage with her verbal and non-verbal feedback.

After the touch-tutorial session, during the debriefing both reported they enjoyed it very much. Ira exclaimed that he wanted to touch Linda more often, and that it made him feel closer to her. After our work that day he felt more relaxed and confident that he could do it with more competence and sensitivity toward her needs around the scar.

This is simply an illustrative example of working with clients on touch and is not meant to replace appropriate training on touch work. The touch work I do has been informed mostly by Processwork signal awareness, some rudimentary bodywork and movement practices, regulation theory, and my own intuitive awareness. My comfort in this area has developed with time and practice. I recommend that clinicians only do this kind of work if they feel confident in their ability to guide clients safely through it.

Working with Implicit Threat Memory and Projection

While regulating a partner's threat responses when they are triggered is a handy skill, the goal with implicit threat memories is to unlearn them altogether. This is possible by leveraging memory reconsolidation mechanisms, which some have termed the brain's way of unlocking and relocking specific memories and synapses (Ecker, et. al., 2012).

To activate memory reconsolidation, here is the approximate process. One first needs to retrieve the encoded threat memory and any behavioral response that serves to protect the person. Using language to articulate this previously subconscious process brings the implicit threat representation to the forefront of awareness. Once a memory has been retrieved and made explicit, a window opens after about ten minutes and closes within 6 hours, during which the memory becomes pliable to alteration (Monfils, Cowansage, Klann, & LeDoux, 2009; Schiller, Raio, & Phelps, 2012). During this time, one can introduce new information into the mental workspace which juxtaposes existing knowledge about a threat with new knowledge and experience that one is safe, and particularly that one is safe in the presence of the significant other.

How this implicit threat representation is articulated matters. Wording the representation in a way that mimics the threat system logic makes it more resonant. The language here should be active, vivid, present-focused, and urgent. The articulated behavioral response must also be seen as a solution, somehow alternatively preferred to the perceived threat. Here are some examples:

“Being left alone in the house without reassurance is too much! I have to get out of here no matter what!”

“If she looks at me like *that* then she’ll definitely abandon me!”

“He’s going to get his way and I’ll never win. That’s unbearable! I’ll fight before I let *that* happen again!”

“Another change in plans! There’s no predicting her and soon she’ll break

my heart like the last woman! Numbing out is better than sticking around for that!”

These are just some examples of how to word these representations after exploring the triggers and behavior patterns with a couple. The key is to find one that resonates on a gut level with the partner experiencing the threat.

Then memory reconsolidation research might suggest leaving the topic to talk about something else or simply implement about ten minutes of rest or meditation. During this pause the memory theoretically de-consolidates, after which, and for up to six hours depending on the strength of the threat memory, becomes pliable to revision.

During the memory reconsolidation window it is important to work with the memory in the present-focused, urgent format it had been articulated, this time adding an additional layer, or layers, of information that can contradict the memory on a visceral level.

So, for example, if I were working with Troy and Carl on Troy’s threat memory, “If you look at me like *that*, you’ll definitely abandon me!” I would work with the couple sitting face-to-face and prompt the Troy to experience what Ecker, et. al. (2012) call the “felt emotional truth” of the memory. Then, with Troy and Carl sitting across from one another in a fairly focused and distraction-free state, we might have the following dialogue:

Me (to Troy): Are you going to drop him?

Carl: No. Not at all.

Me (to Troy): Did you hear that?

Troy: Yes.

Me (to Troy): Looking into his eyes, do you believe him?

Troy: I don't know.

Me (to Carl): Why won't you leave him? He's had too many bad experiences before you to believe you'll stick around. I mean, you're angry enough, aren't you?

Carl: Yeah, but I love him. We work through things together.

Me (to Carl): Look at him and tell him that.

Carl (to Troy): I love you. We'll always work things out, that's what we do.

The point of this interaction is to create a juxtaposition moment of security for Troy. At this point, if it was effective for Troy we should see a shift in physiology that indicates a moment of ease or release. This might be a shift from chest to belly breathing, softening of the eyes muscles of the face, release of tears, positive reciprocal affect, etc. To further consolidate this new learning and successful co-regulatory experience, we might have the following conversation:

Me (to Troy): Is that believable?

Troy: Yes.

Me (to Troy): What's believable about it?

Troy: I can see in his eyes that he really loves me and cares. He's not going to leave just because it's hard.

Me (To Troy): Go back to the thing you were afraid of before, "If you look at me like that, you'll definitely abandon me!" Carlos, give Troy a dirty look like you did before. Troy, does it still feel real like it did before?

Troy: (Chuckles) No, not really.

Me: No, he's not going anywhere. You two are great together when you support each other like this.

We could also have continued to layer the juxtapositions and challenge the durability of the threat memory with further questions like, "Why should you believe Carlos now?" or "How do you know Carlos means it?". We could also have explored the past history of who looked at Troy in the way that he learned meant he would get dropped and contrasted it with the present reality, hence dealing more directly with a psychological projection.

There are many creative ways we could structure this exercise, but the core components are: explicitly reconstructing a threat schema with felt truth to it, pausing, and using interactive regulation to help partners have a new experience of creating safety and security in one another's care.

Conclusion

I would be delighted if this small research effort could have determined conclusively what can relieve unnecessary threat states in individual and relationship systems. But unfortunately there are no definitive ways to work with threat states in relationships. Processwork offers a wonderful array of working with disturbing states with individuals, but the methods for working with threat in relationships are less developed and standardized. It is my hope that in the living development of Processwork methods, the information contained within this paper can continue to be tested and integrated into Processwork relationship practice.

What is to be learned here is that the neurophysiological aspect of threat states is real and its impact on relationship functioning can be devastating. I hope that this project can give voice to this important perspective.

At the same time, the human alarm system is more complex than the initial hair trigger that sets it off, and brain, body, and relationship systems can be trained to respond to threat states with more measured de-escalation. Additionally, partners and relationship partners are a tremendous resource toward safety because of the interactive effects of the social engagement system.

I believe Arnold Mindell (2010) touches on the spirit of the social engagement system when he explains the effect of processmind, or state of non-dualistic awareness, on relationships:

The processmind is the intelligence and power of love... love is the master facilitator process behind all relationship problems, whether personal,

business, group, or international in nature. Love being, in this sense, an ineffable, essence-level phenomenon, it is beyond good and bad, nice and not so nice. It embraces the energies we like and deals well with what at first appeared to be the troublesome energies (p. 207-8).

I believe if we were to look for a biological corollary to Arnold Mindell's processmind, the ventral vagal motor complex, and social engagement system which it influences, is as close and elegant as we can get with what we currently know.

Further research is needed on the elements of safety and how they can be incorporated into Processwork. Beyond the basics that have been explored in this paper I would be curious to continue to explore the nuances for how threat states intersect with edgework. Additionally, I encourage practitioners to take the ideas that are appealing here, adapt them as needed, and see what results they yield in everyday practice. The possibilities for more learning about how to be and feel safe with significant others and experience more optimal relationship states are endless.

Modern life has constructed a huge job for couples. To manage a fulfilling relationship often means sharing connections across realms of the physical, sexual, intellectual, and spiritual with a sense of satisfaction and purpose. It means managing the operations of two people's lives, finances, and a household. Sometimes it involves rearing children. And to do this while also managing conflicts and diversity well enough so that negative experiences do not eclipse the positive ones and drive an unnecessary wedge between relationship partners.

With all this in tow I'm reflecting on the value of Processwork relationship tools.

Relationship myth work forges purpose and connection. Exploration of dreaming helps clients explore their worlds of implicit memory experience. And conflict work helps partners build toward greater empathy and integration of different perspectives and experiences. It is my hope that understanding threat states, attending to them, and working with them can also be an integral part of Processwork relationship work. It is not the only thing to know, but it is a valuable complement to a suite of other relationship tools for therapists who work with couples.

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