

A Space for You

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One of the unfortunate consequences of significant traumas is that they can collapse an individual's sense of personal space. Not only can this lead to an unbearable sense of rawness, but it can also make connecting with others extremely difficult. Scientists have recently discovered a networking of special multimodal neurons in the brain – nerves that respond to a variety of stimuli such as both visual and auditory – that are responsible for our sense of personal space.

In this workshop we will explore a simple process, working with the multimodal neuron network, that reboots your and/or a client's personal space, making both a sense of safety and connecting with others possible again.

Lee Cartwright, M.A., a Southwestern College alumnus, helped clients resolve physical, emotional and spiritual traumas in his Santa Fe practice. His therapeutic strategies were dedicated to reconnecting/reigniting the inherent healing resources of the body/psyche. With over 30 years of teaching experience, Lee's workshops are informative, entertaining and focused on attendees gaining real-life skills.

Disclaimer:

All of the material in this presentation is provided for information purposes only and should not be construed in any way as medical or psychological advice or instruction. Anyone seeking the diagnosis and/or treatment of a physical and/or emotional condition should seek out an appropriately licensed health care practitioner. Further, we do not guarantee the A Space for You process outlined in this presentation will work for you or your clients. Finally, we have not heard of any side of effects from the process, but we do not guarantee that you or your clients will not experience any side effects.

Introduction

Peripersonal Space

Peripersonal space (PPS) is the arm and leg reach space around the body.

Feelings of safety and self confidence are greatly enhanced when the body/psyche feels in control of what does and does not enter PPS.

Unwanted intrusions within PPS can trigger *brainstem based defensive responses*.

When trauma breaks down the tracking and/or defense of PPS, emotional dysregulation is a natural consequence.

A Space for You is a simple, neurologically based process for reestablishing the body's tracking and defense of PPS.

The goals of A Space for You include: an increased sense of safety, effective movement of the body, accurate tracking of safe and unsafe situations, improved relationships and reduced self-sabotage.

Workshop Outline

- A. The nature and meaning of peripersonal space.
- B. A Space for You – strategy.
- C. A Space for You – demonstration.
- D. A Space for You – practice.

The Nature and Meaning of Peripersonal Space

1. Definition and function.

The brain understands peripersonal space (PPS) as the region immediately surrounding the body – within arm/leg reach – in which objects can be contacted/manipulated.

PPS serves as the interface between the body and the environment. It is the region in which the body makes defensive responses against as well as purposeful movements towards people and objects.

The motivating forces for PPS are survival and effective movement of the body.

2. The neurology of peripersonal space.

PPS is monitored by a network of multimodal neurons within the brain and brainstem. Historically, the nerves of the brain were thought to respond to only 1 form of sensory input. Scientists have recently discovered that the brain also has a system of *multimodal neurons* that respond to combinations of 2 or more sensory inputs – visual, auditory, vestibular, touch, smell, proprioception and/or “pheromone sense.”

By combining data from 2 or more sensory inputs, multimodal neurons construct the brain’s sense of both the body and the space immediately surrounding it (PPS). Multimodal neurons are located within both cortical (outer) and subcortical (inner) regions of the brain/brainstem (such as the putamen and tectum).

When operating effectively, all of the multimodal neurons of the brain work together in an *information sharing network*.

3. Interesting facts about peripersonal space.

a. PPS is a scientifically definable region. In contrast, how a body “interprets/manages” this space is profoundly influenced by culture. The goal of the A Space for You process is to reveal the person’s natural experience of PPS based on his/her own culture.

b. Regardless of one's culture, the body's management of PPS must be fluid – adjusting on a moment-by-moment basis to changing circumstances. Depending on whether you are with your children, in a work meeting, at your place of worship, in a crowded subway, or with your lover – the PPS system must have a *volume knob*.

c. Increasing population density can “force” the body to adjust its interpretation of PPS.

d. Your sense/feeling about a person directly impacts your PPS system. Studies have shown that:

- Being approached by a happy person reduces the need for PPS.
- Being approached by an angry person expands the need for PPS.
- Tense emotional interactions expand the need for PPS.
- People need more PPS when dealing with men than women.
- Women need less PPS when dealing with children versus adults.
- Cooperating with others merges your PPS with theirs.
- Being able to control another person's movement reduces the need for PPS.
- Being in a different culture often expands the need for PPS.

e. Alpha males often have a small PPS, but other people sense an expanded need for PPS when dealing with alpha males (out of fear).

f. The PPS system incorporates tools *into the body schema*.

g. The PPS system also tracks the space around the legs.

4. The impact of trauma on PPS.

As described in Peter Levine's book Waking the Tiger, the three basic biological responses to trauma are 1) hyperarousal 2) freezing and 3) dissociation.

Hyperaroused states *expand the need for PPS*. The body is saying – “I need more space to feel safe.” This increased need for space is experienced by other people as defensiveness/controlling. As a result, connecting with others is much more difficult.

When in a frozen state (sympathetic hyperarousal plus parasympathetic braking), the *body perceives PPS is indefensible*. During freezing, the body continues to track PPS but is incapable of protecting it.

During dissociation (sympathetic hyperarousal plus parasympathetic braking), the PPS system *is taken off-line*. Because PPS is no longer tracked, it becomes very difficult to keep inappropriate others out of one's life. In dissociation, "Who am I?" and "How do I fit in?" become ongoing questions.

Regardless of whether someone experiences hyperarousal, freezing and/or dissociation, trauma's disregulation of the PPS system breaks down an individual's ability to interface with life. To remedy this, the goals of the A Space for You process are initiating both the effective tracking and congruent defense of PPS.

A Space for You - Strategy

1. The 9 sentence process (summarized on pages 9 -11).

A Space for You is a simple, 9 sentence conversation/dialogue that a person has with his/her body. Each sentence rebuilds a different aspect of the PPS system. The sentences should be expressed as *requests of your body* – they are NOT affirmations. Each sentence should be repeated around 6-8 times. Don't focus on counting – focus instead on the intention.

All the sentences involve asking the body to talk to the Sun. In the process, the Sun is NOT viewed as God. Rather, as the source of all life on Earth, the Sun is viewed as the *body's understanding of source or origin*. One does not need to believe the body can talk to the Sun – just repeat the sentences, they will work regardless.

Someone does not need to understand the meaning of the technical terms used in the process. Why? The parts of the body know their name when it is spoken. The parts of the body also recognize an individual's voice when it speaks to them.

Repeat the entire 9 sentence process a total of 2-3 times (or more if necessary) to resolve the trauma to the PPS system from any kind of event.

2. The traumas need to be over.

The process is designed for resolving trauma from past events – the 2012 car accident, the birth of my son, the death of my mother, etc. In the blank at the end of each sentence, place a fact-based description of the past event.

- The description should not include judgments such as – my *evil* father left us or my *satanic* mother beat me.
- The sentences need to be repeated without anger/vengeance.
- Similar events can be grouped – after each time my brother hit me.
- If naming the event is too painful, just use the date – after April 2015.
- For recovered memories, only use – after I recovered the memories.
- If the event is NOT over, replace “after” in each sentence with the phrase – “in relation to.” Example – in relation to the lung cancer.

3. Who can use the strategy?

- A counselor can lead a client through the process.
- If you are a bodyworker and your client feels safe, you can talk to the PPS system through your hands.
- If you are a parent and your prepubescent child feels safe, you can talk to the PPS system through your hands.
- If you are a pet owner and your pet feels safe, you can talk to the PPS system through your hands.
- If you are safe and you can stay with the process a) versus get flooded and b) through to completion, you can do the process on your own. Never do the process while you are driving!

4. Guiding a client through – A Space for You.

First, explain:

1. PPS is the region within arm and leg reach of the body.
2. PPS is managed by a system of special nerve cells in the brain called multimodal neurons.
3. Multimodal neurons are unique in that they respond to more than 1 kind of sensory input – visual, sound, touch, smell, proprioception and/or others.
4. Multimodal neurons, which reside in both cortical (outer layer) and subcortical (inner regions) of the brain, all work together in an information sharing network.

5. The primary purpose of multimodal neurons is to help you feel safe – to help you feel in control of who/what does and does not enter your PPS.
6. The secondary purpose of multimodal neurons is to help you move effectively through space – whether you are walking, running, driving a car or using a hammer.
7. It is not necessary to understand *any of the anatomy* behind multimodal neurons for the process to work. All you have to do is repeat 9 scripted sentences out loud.
8. If an emotion comes out during the process, the goal is to allow it and stay with the process – the goal is resolution!
9. Taking a break is fine at any point in the process.
10. While you are doing the process, you might notice:
 - a. Immediate relief.
 - b. Integration signs such as tingling, tears, changes in body temperature, etc.
 - c. Difficulty saying the words.
 - d. Forgetting where you are in the process.
11. The goals:
 - a. Feeling safer.
 - b. Isolating less.
 - c. Better teamwork with the people in your life.
 - d. Reduced self-sabotage.
 - e. Deeper connections with the people you care about.

Second, once the process starts:

1. Be present, compassionate and neutral.
2. Help the client switch between the sentences.
3. Help the client talk to versus try to force his/her body.
4. Help the client stay with the process versus dive into emotions.
5. In the incredibly rare circumstance where a client goes in to a dissociative reenactment, bring them back to present time by helping them focus on current sensory reality.
6. At the end of the session, it is often helpful to have the client do the following Brain Gym moves to help integrate the work.
 - Cross Crawl – walk in place, extending each hand to the opposite knee.
 - Self Worth – with the hands clasped behind the back, “draw” a front/back figure eight with the hips. Do it several times in

one direction, then repeat the process in the opposite direction.

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Websites: *many* journal articles can be accessed using internet searches focusing on peripersonal space, multimodal properties of neurons as well as body schema.

A Space for You

1. All multimodal neurons throughout the brain, please ask the Sun about the electromagnetic field we generated after _____.
2. Both eyes, please ask the Sun about your participation in the multimodal neuron network after _____.
3. Both inner ears, please ask the Sun about your participation in the multimodal neuron network after _____.
4. Both olfactory and terminal nerves, please ask the Sun about your participation in the multimodal neuron network after _____.
5. All touch and proprioception receptors, please ask the Sun about your participation in the multimodal neuron network after _____.
6. All multimodal neurons throughout the brain, please ask the Sun about your networking after _____.
7. Multimodal neuron network, please ask the Sun about your input to the brainstem and spinal cord after _____.
8. Heart, please ask the Sun about the electromagnetic field we generated to and from the multimodal neuron network after _____.
9. Enteric nervous system, please ask the Sun about your interrelationship with the multimodal neuron network after _____.

A Space for You

1. All multimodal neurons throughout the brain, please ask the Sun about the electromagnetic field we generated after _____.

What?

Multimodal neuron – respond to more than 1 sense.

Throughout the brain – in both the outer cortex and inner regions of the brain and brainstem.

Why?

The quality of the brain's EMF is a measure of health.

2. Both eyes, please ask the Sun about your participation in the multimodal neuron network after _____.

Why?

Vision is 1 of the inputs to the PPS system.

3. Both inner ears, please ask the Sun about your participation in the multimodal neuron network after _____.

What?

The inner ears are the source of hearing and equilibrium.

4. Both olfactory and terminal nerves, please ask the Sun about your participation in the multimodal neuron network after _____.

What?

The olfactory nerves sense smell; the terminal nerves are thought to detect pheromones.

5. All touch and proprioception receptors, please ask the Sun about your participation in the multimodal neuron network after _____.

What?

Proprioception receptors – located in the muscles, tendons and joints - sense the position of the body.

6. All multimodal neurons throughout the brain, please ask the Sun about your networking after _____.

Why?

The multimodal neurons must work together!

7. Multimodal neuron network, please ask the Sun about your input to the brainstem and spinal cord after _____.

Why?

The multimodal neuron network *must* be interconnected with the brainstem and spinal cord for the body to defend itself.

8. Heart, please ask the Sun about the electromagnetic field we generated to and from the multimodal neuron network after _____.

What?

The human heart generates a scientifically measureable electromagnetic field that interconnects all parts of the body.

9. Enteric nervous system, please ask the Sun about your interrelationship with the multimodal neuron network after _____.

What?

The enteric nervous system (the nerves of the entire digestive tract) expresses the body's *gut sense of safety*.

SUMMARY SHEET FOR BASIC PROCESS

Setup:

1. PPS is the space within arm and/or leg reach of the body. The human body “desires” to have control over who/what does and does not enter PPS.
2. PPS is monitored by a system of multimodal neurons (responding to more than 1 sensory input) that are scattered throughout both cortical and subcortical regions of the brain. The goals of the PPS system are 1) the safety of the body as well as 2) effective movement through space. For the PPS system to work effectively, all multimodal neurons must be networked together in an information sharing network.
3. Past traumas can significantly disrupt the PPS system, leaving the individual vulnerable to cycles of hyperarousal, freezing and/or dissociation. A Space for You is designed to reestablish both effective tracking and defense of PPS. This enhances the body/psyche sense of both safety and wholeness. Tendencies toward isolation and self-sabotage are correspondingly reduced.
4. The 9 sentences in A Space for You are requests of the body, not affirmations. If an emotion comes up during a session, the goal is to allow it and stay with the process. It is not necessary to understand the nature/function of any of the anatomy for the process to work.
5. During a session you might experience a) immediate relief, b) integration signs such as sadness, crying, tingling, changes in body temperature, c) difficulty saying the words and/or d) forgetting where we are in the process.
6. You can initiate a break in the process at any time. If you happen to get flooded, I will help bring you back to present time.

What Goes at the End of the Sentence:

1. A brief, fact based description of the event.
2. It should not contain a) emotional content or b) evaluations/judgments. It should not arouse anger.
3. If the same thing happened over and over again, sometimes the events can be grouped – “after each time dad left us.”
4. When naming the event is too painful, just use the calendar year in which it happened – “after 2011.”
5. For recovered memories, use “after I recovered the memories.”

Your Job Once the Process Starts:

1. Be present, compassionate and neutral.
2. Have the client repeat each sentence about 6-8 times, then go on to the next. If one part of the process feels particularly important, have them repeat the sentence as often as it is helpful.
3. Help the client talk to his/her body versus command it.
4. Gently help the client stay with the process versus diving into the emotion. If the client becomes flooded, bring them “back to reality” by helping them focus on current sensory experience.
5. Repeat the entire 9 sentence process a total of 2-3 times (or more if necessary) to resolve the trauma to the PPS system from any kind of event.
6. Have the client finish with Cross Crawl (walking in place) and Self Worth (drawing a front/back figure eight with the hips).