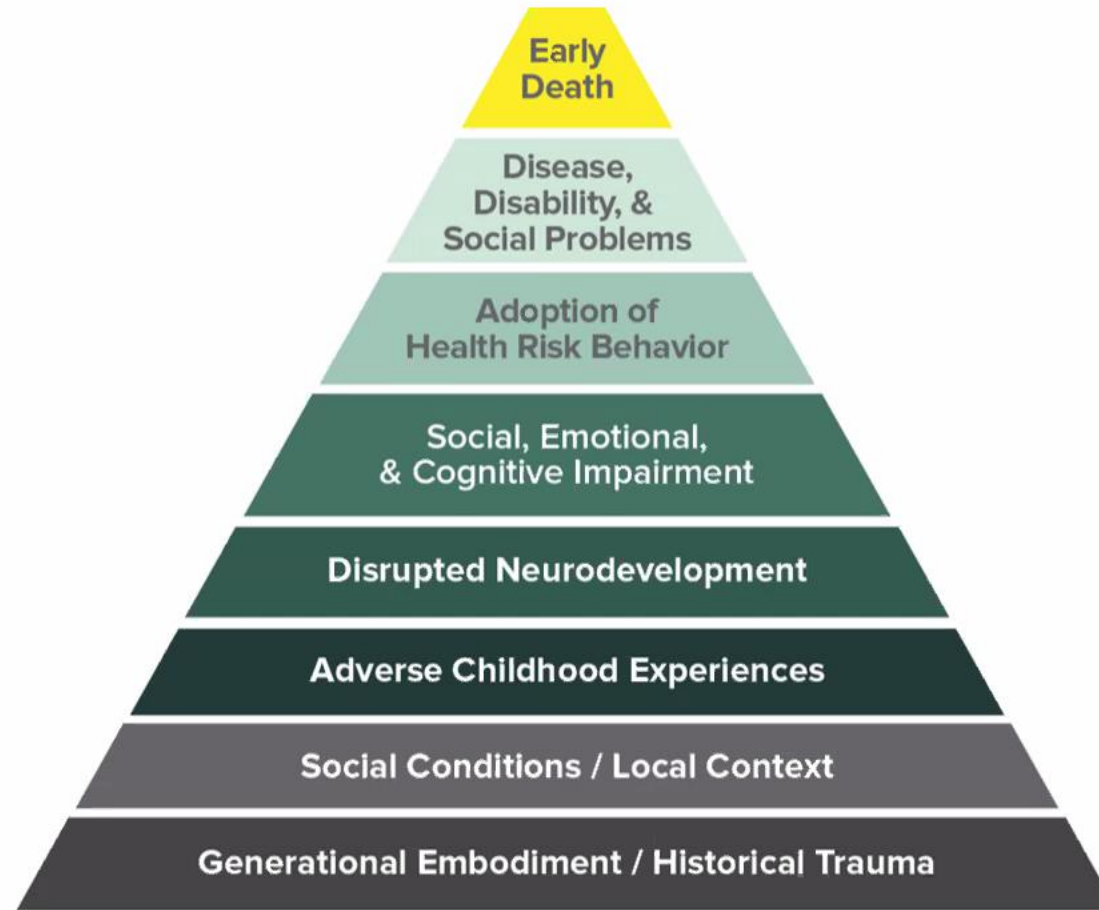


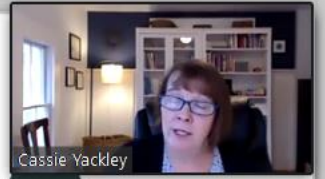
Attunement & Mirror Neurons

- Our brain is able to attune with others in large part due to “mirror neurons”
- By reading cues (non-verbal behaviors) our mirror neurons assist our brains in replicating the same firing of neurons

The Extended ACEs Pyramid



Mechanism by which Adverse Childhood Experiences
Influence Health and Well-being Throughout the Lifespan



Conception

Neuroception

“Neuroception represents a neural process that enables humans and other mammals to engage in social behaviors by distinguishing safe from dangerous contexts” (p. 5).

- Temporal cortex – amygdala
 - Intention of voices, faces, and hand movements (familiar individuals & those with prosodic voices and warm, expressive faces = sense of safety)
- Viscera – from afferent feedback
 - “Functionally, visceral states color our perception of objects and others” (p. 6)
 - Insula – detects internal body states and represent in a subjective feeling

In Utero Experiences

- Somatosensory cues
- Rhythmic
 - 40-100 beats per minute
- Once born the caregiver provides pleasure and safety
 - Rocking
 - Bouncing
- Causes the release of hormones that calm
- Rhythm and regulation are associated
- As are experiences with caregivers (relief from distress)



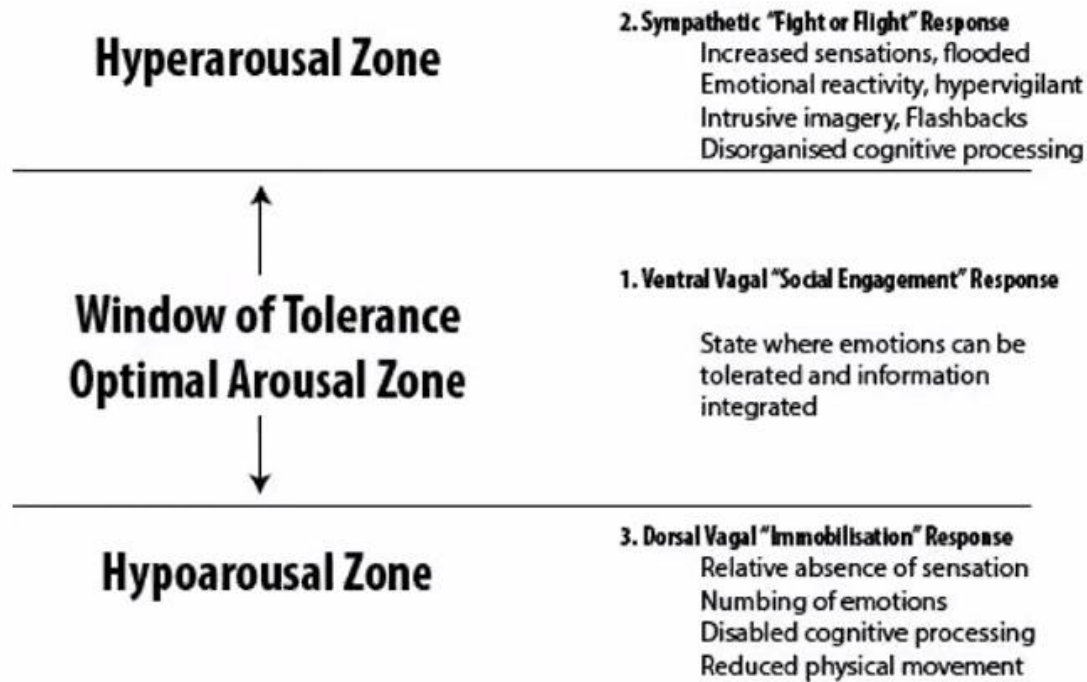
Safety & Relationships

“You keep me safe and help me to believe that others can be safe” = ATTACHMENT

“You see me, understand me, and help me understand myself” = ATTUNEMENT

“You notice when I am distressed and help me to calm down” = CO-REGULATION

Window of Tolerance

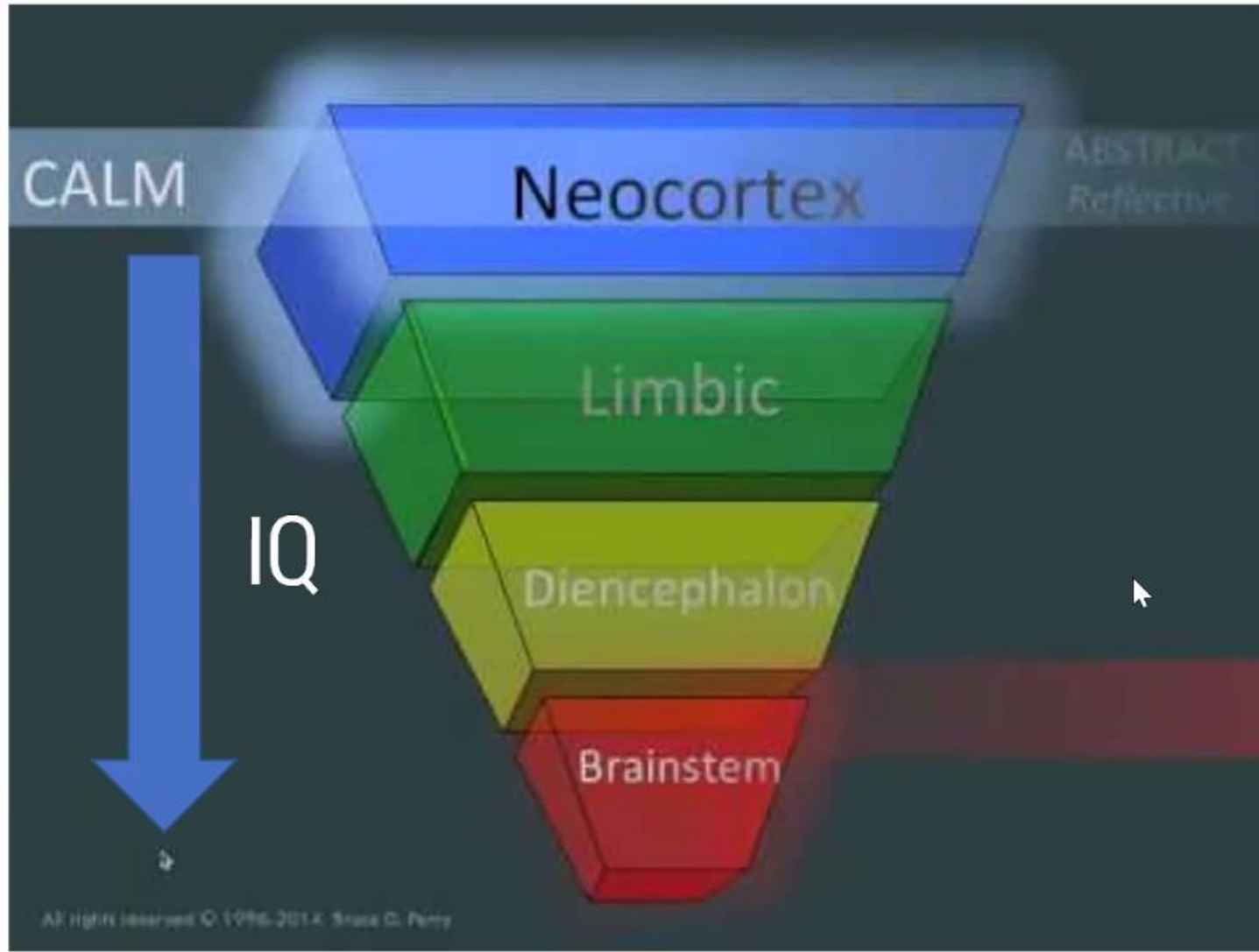


Adapted from Ogden, Minton, & Pain, 2006, p. 27, 32; Corrigan, Fisher, & Nutt, 2010, p. 2

The Stress Response System via Polyvagal Theory (Porges)

1. Ventral vagal parasympathetic (safety)
 - The default mode of arousal
 - "Rest and digest"
 - Slows the fear response and allows for connection and co-regulation
2. Sympathetic (hyperarousal)
 - Danger or play and joy
 - Overrides the ventral vagal
 - Results in bodily changes (increased heart rate, mobilization, rage & panic)
3. Dorsal vagal parasympathetic (hypoarousal)
 - Life threat or deep rest and contemplation
 - Overrides sympathetic
 - Activated by helplessness and shame/humiliation

State Dependent Functioning (Bruce Perry, MD, PhD)



Abstract thinking
Future-oriented planning

Emotional thinking
Focus on hours and minutes

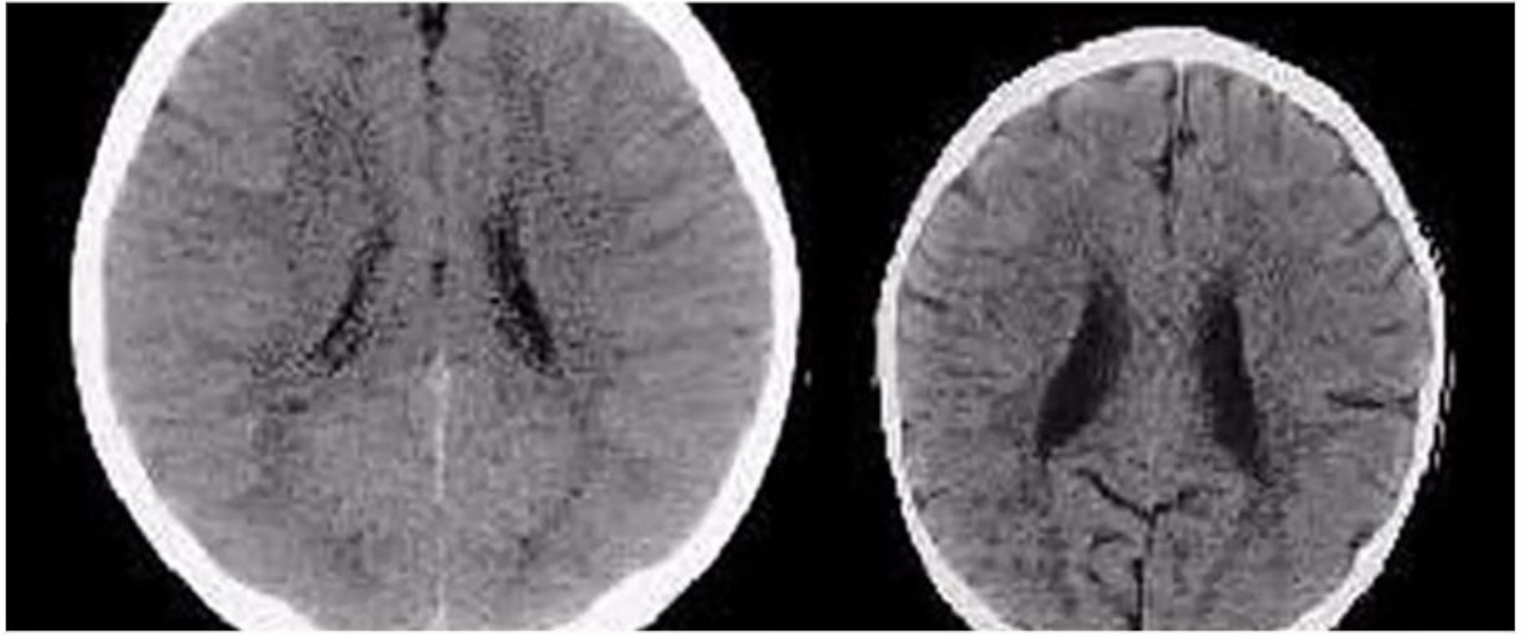
Reflexive thinking
No sense of time

State Dependent Functioning (Bruce Perry, MD, PhD)



Internal State	CALM Reflect	ALERT Flock	ALARM Freeze	FEAR Flight	TERROR Fight
Brain Regulating Region	NEOCORTEX Subcortex	SUBCORTEX Limbic	LIMBIC Midbrain	MIDBRAIN Brainstem	BRAINSTEM Autonomic
Arousal Continuum	REST	VIGILANCE	RESISTANCE Crying	DEFIANCE Tantrums	AGGRESSION
Dissociative Continuum	REST	AVOIDANCE	COMPLIANCE Robotic	DISSOCIATION Fetal Rocking	FAINTING
Cognitive Style	Abstract	Concrete	Emotional	Reactive	Reflexive
Sense of time	Extended Future	Days Hours	Hours Minutes	Minutes Seconds	No Sense of Time
Brain Region Accessibility	Neocortex = 85% Limbic = 90% Lower Brain = 10%		Neocortex = 10% Limbic = 60% Lower Brain = 60%		Neocortex = 5% Limbic = 30% Lower Brain = 85%





Neglectful Experiences &
Lack of Brain Integration



“How States Becomes Traits”

(Bruce Perry, MD, PhD)

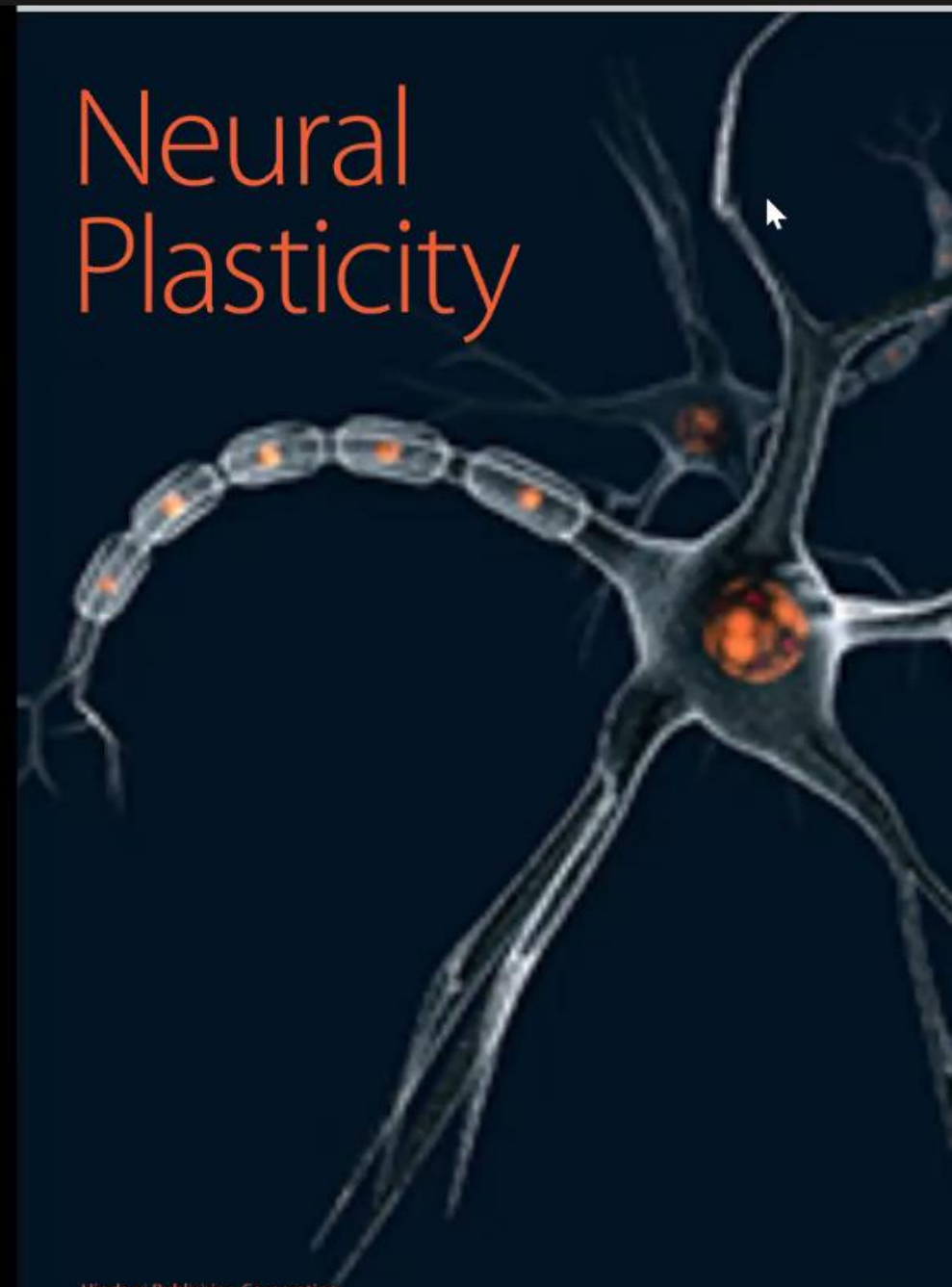
- Persistent states of arousal become neutrally-based habits of responding
 - “Neurons that fire together, wire together”
- Sensitization of the fear response – (a.k.a., the “kindling effect”)

Disrupted Neurodevelopment

Earlier to Develop – Decreased Plasticity

- Brain Stem
 - ANS functions
- Cerebellum and Diencephalon
 - Motor control
 - Arousal level
- Limbic System
 - Emotions
 - Relationships
- Prefrontal Cortex
 - Executive functions

Neural Plasticity



Disrupted
Neurodevelopment:
Brain Stem
Functioning (AAP)

Response to Trauma: Bodily Functions

FUNCTION	CENTRAL CAUSE	SYMPTOM(S)
Sleep	Stimulation of reticular activating system	1. Difficulty falling asleep 2. Difficulty staying asleep 3. Nightmares
Eating	Inhibition of satiety center, anxiety	1. Rapid eating 2. Lack of satiety 3. Food hoarding 4. Loss of appetite
Toileting	Increased sympathetic tone, increased catecholamines	1. Constipation 2. Encopresis 3. Enuresis 4. Regression of toileting skills

Externalizing Behavior Problems

Externalizing behavior problems are represented by the diagnoses (ADHD, ODD, and CD)

Empirical evidence links externalizing behavior problems to:

- Childhood maltreatment
- Family violence
- Community violence
- Maladaptive parenting

Internalizing Behavior Problems

- Children who have experienced some form of victimization display those symptoms as:
 - Separation anxiety disorder
 - Panic disorder

Behavioral Manifestations of Trauma (AAP)

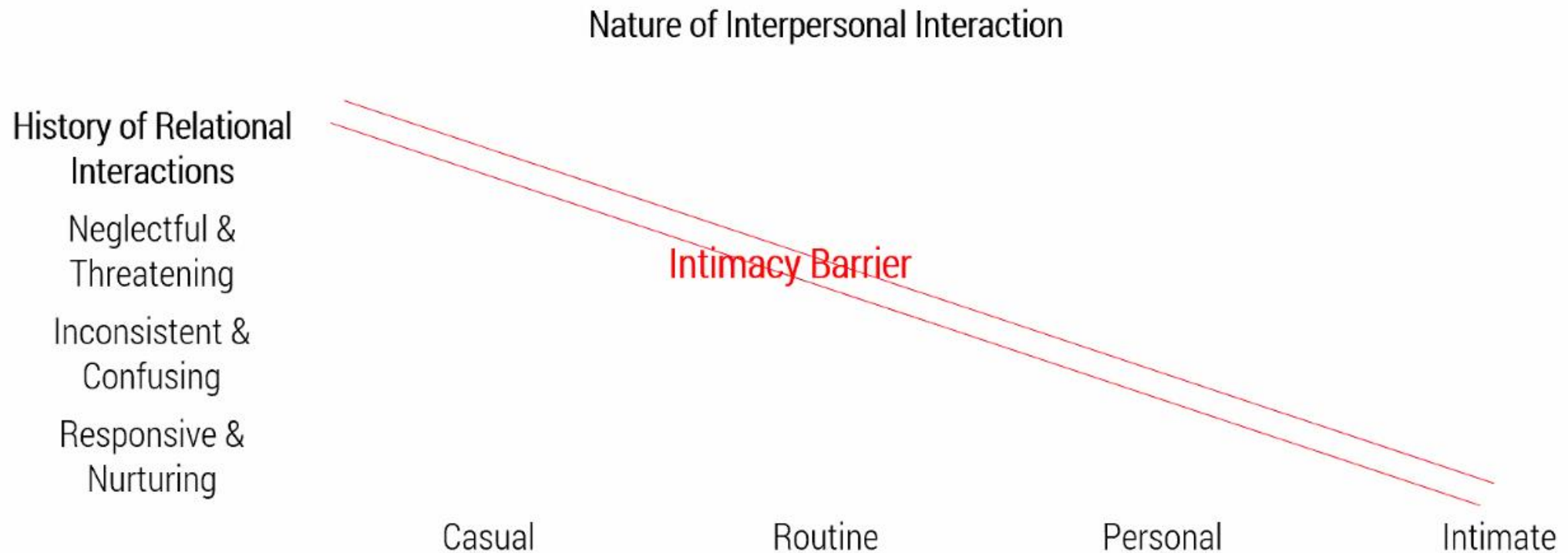
Response to Trauma: Behaviors ^{15,16}			
CATEGORY	MORE COMMON WITH	RESPONSE	MISIDENTIFIED AS AND/OR COMORBID WITH
Dissociation (Dopaminergic)	<ul style="list-style-type: none"> • Females • Young children • Ongoing trauma/Pain • Inability to defend self 	<ul style="list-style-type: none"> • Detachment • Numbing • Compliance • Fantasy 	<ul style="list-style-type: none"> • Depression • ADHD Inattentive Type • Developmental delay
Arousal (Adrenergic)	<ul style="list-style-type: none"> • Males • Older children • Witness to violence • Inability to fight or flee 	<ul style="list-style-type: none"> • Hypervigilance • Aggression • Anxiety • Exaggerated response 	<ul style="list-style-type: none"> • ADHD • ODD • Conduct disorder • Bipolar disorder • Anger management difficulties



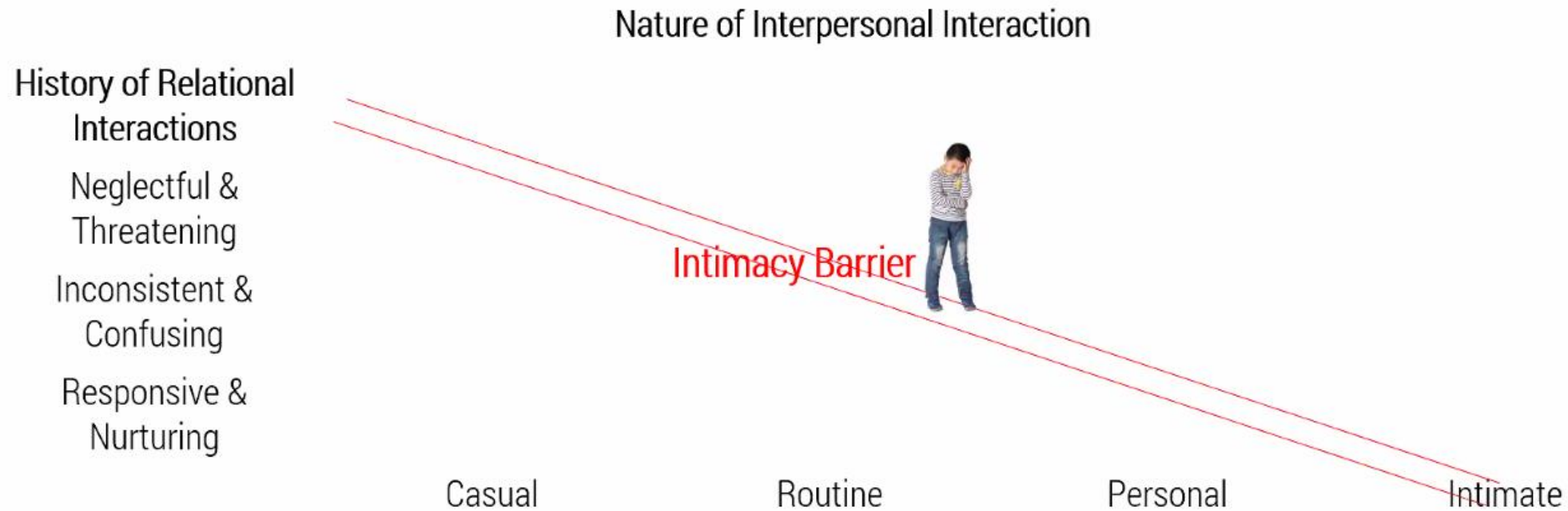
The Intimacy Barrier (Perry, B.)

- For those with poor relational history, relational interactions are the TRIGGER
 - Threat and intimacy become associated with each other
 - Social engagement and nurturing behaviors elicit learned responses
- The “intimacy barrier” represents the comfort with social & emotional closeness that is tolerated
- The intimacy barrier is also state-dependent

The Intimacy Barrier (Perry, B.)

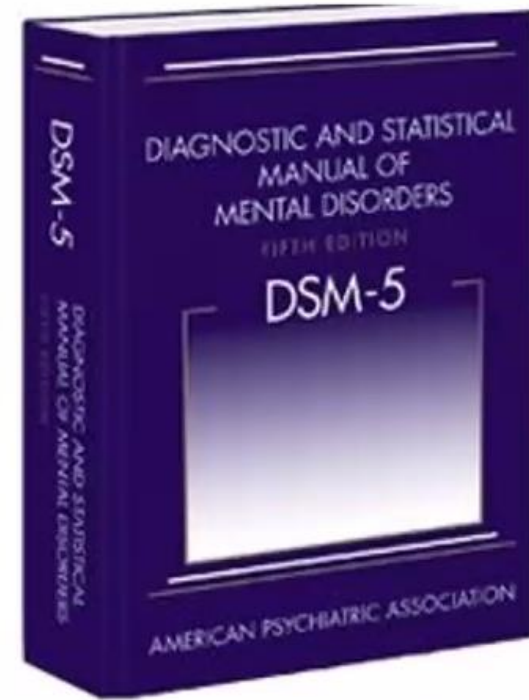


The Intimacy Barrier (Perry, B.)

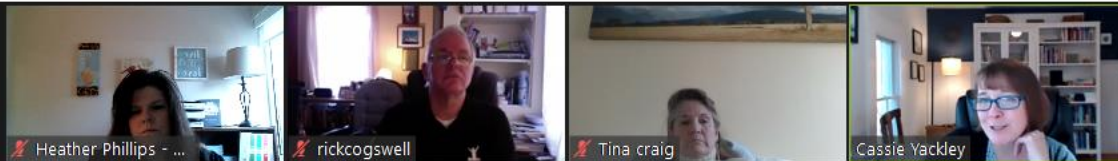


Post-Traumatic Stress Disorder

- A. Exposure to death, violence, injury
- B. Intrusion
 1. Distressing memories – recurrent, involuntary, intrusive
 2. Nightmares
 3. Dissociative reactions – flashbacks
 4. Intense distress at exposure to reminders
 5. Physiological reactions
- C. Avoidance – memories, thoughts, feelings, external reminders
- D. Negative alterations in cognitions and mood
- E. Alterations in arousal – Irritability, recklessness, hyper-vigilance



DSM-5
2013



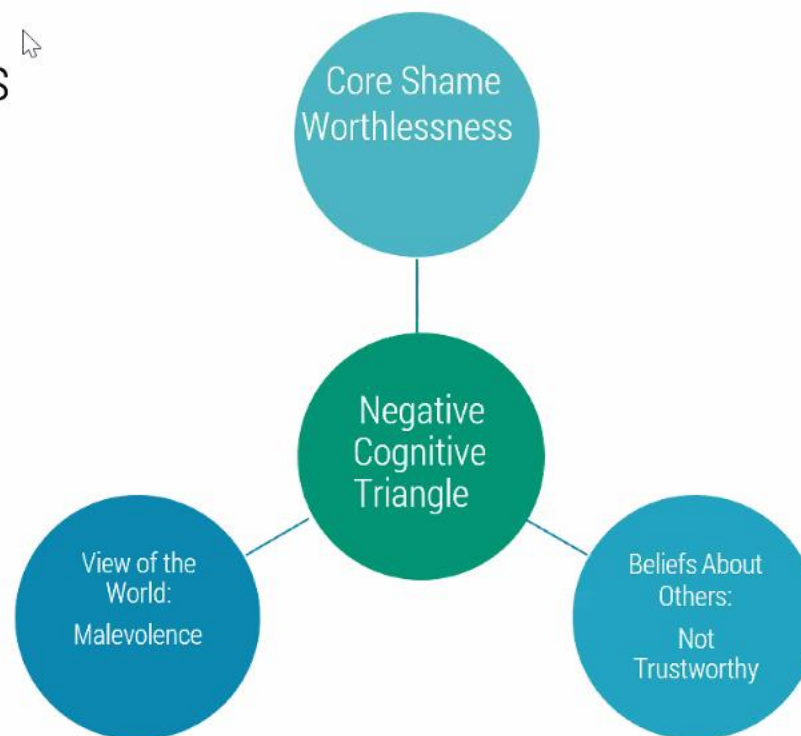
Abbie

Denise White



Negative Alterations in Cognitions and Mood

Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world



Participants (58)

Find a participant

- HP Heather Phillips - Mt Washin... (Co-host, me)
- C Cassie Yackley (Host)
- A Abbie
- A Adam
- Alison Moore
- AL Alyssa Lemmermann
- AR Alyssa Riley

yes no go slower go faster more clear all

Invite

Mute All

Chat

From [marty cloran](#) to Everyone:
I also forgot. martycloran@roadrunner.com

From [Daniel.A.Patterson](#) to Everyone:
Daniel.Patterson@DHHS.NH.GOV

From [Kelley](#) to Everyone:
kmarcello@childrenunlimitedinc.org

From [Carolee Longley, LADC](#) to Everyone:
I forgot to add my e-mail:
carolee.longley@joingroups.com

From [Catalina Kirsch, C3PH](#) to Everyone:
Use view options - zoom ratio... if you need to see it enlarged

From [Carolee Longley, LADC](#) to Everyone:
this is why trauma informed care is SOOO important!!!!

To: Everyone

File

Type message here...

Parallel Processes (ARC, Blaustein)

Domain	Youth	Caregiver	Professional
Cognitive	I am bad, unlovable, damaged. I can't trust anyone.	I am ineffective This kid is rejecting me.	I am ineffective professional. This family needs to work harder.
Emotional	Shame, anger, fear, hopelessness.	Frustration, sadness, helplessness, worry.	Frustration, helplessness, indifference.
Behavior	Avoidance, aggression, preemptive rejection.	Over-reacting, controlling, shutting down, being overly permissive.	Disconnection, dismissing, ignoring, removal/termination.
The Cycle	She's going to reject me anyway. I better not connect.	He's just not interested in connecting with me.	I don't think anyone could make a difference with this family.



Negative Alterations in Cognitions and Mood

- Distorted cognitions about the cause or consequences of the event (e.g. self blame)
- Persistent negative emotional state
- Markedly diminished interest in activities
- Feelings of detachment
- Inability to experience positive emotions

15 Styles of Distorted Thinking

<i>Filtering</i>	You take the negative details and magnify them while filtering out all positive aspects of a situation.
<i>Polarized Thinking</i>	Things are black or white, good or bad. You have to be perfect or you're a failure. There is no middle ground.
<i>Overgeneralization</i>	You come to a general conclusion based on a single incident or piece of evidence. If something bad happens once you expect it to happen over and over again.
<i>Mind Reading</i>	Without their saying so, you know what people are feeling and why they act the way they do. In particular, you are able to divine how people are feeling towards you.
<i>Catastrophizing</i>	You expect disaster. You notice or hear about a problem and start "what if's:" What if tragedy strikes? What if it happens to you?
<i>Personalization</i>	Thinking that everything people do or say is some kind of reaction to you. You also compare yourself to others, trying to determine who's smarter, better looking, etc.
<i>Control Fallacies</i>	If you feel externally controlled, you see yourself as helpless, a victim of fate. The fallacy of internal control has you responsible for the pain and happiness of everyone around you.
<i>Fallacy of Fairness</i>	You feel resentful because you think you know what's fair but other people won't agree with you.
<i>Blaming</i>	You hold other people responsible for your pain, or take the other tack and blame yourself for every problem or reversal.
<i>Shoulds</i>	You have a list of ironclad rules about how you and others should act. People who break the rules anger you and you feel guilty if you violate the rules.
<i>Emotional Reasoning</i>	You believe that what you feel must be true—automatically. If you feel stupid and boring, then you must be stupid and boring.
<i>Fallacy of Change</i>	You expect that other people will change to suit you if you just pressure or cajole them enough. You will need to change people because your hopes for happiness seem to depend entirely on them.
<i>Global Labeling</i>	You generalize one or two qualities into a negative global judgment.
<i>Being Right</i>	You are continually on trial to prove that your opinions and actions are correct. Being wrong is unthinkable and you will go to any length to demonstrate your rightness.
<i>Heaven's Reward Fallacy</i>	You expect all your sacrifice and self-denial to pay off, as if there were someone keeping score. You feel bitter when the reward does not come.



Subtypes of PTSD Adaptation

1. Trauma-related altered states of consciousness (TRASC) – Hypo-arousal
2. Normal waking consciousness/significant distress (NWC) – Hyper-arousal



Find a participant

HP	Heather Phillips - Mt Washin... (Co-host, me)		
C	Cassie Yackley (Host)		
A	Abbie		
A	Adam		
	Alison Moore		
AL	Alyssa Lemmermann		
AR	Alyssa Riley		

yes no go slower go faster more clear all

Invite

Mute All

Chat

carolee.longley@joingroups.com

From Catalina Kirsch, C3PH to Everyone: 01:21 PM
Use view options - zoom ratio... if you need to see it enlarged

From Carolee Longley, LADC to Everyone: 01:48 PM
this is why trauma informed care is SOOO important!!!!

From Amber Smith to Everyone: 01:54 PM
agree!

From Crystal Sawyer to Everyone: 01:54 PM
Good point!

From Catalina Kirsch, C3PH to Everyone: 01:54 PM
compassion first

From Carolee Longley, LADC to Everyone: 01:55 PM
do no harm....don't re-traumatize people!!!

To: Everyone

File

Type message here...



Dissociation as Protection

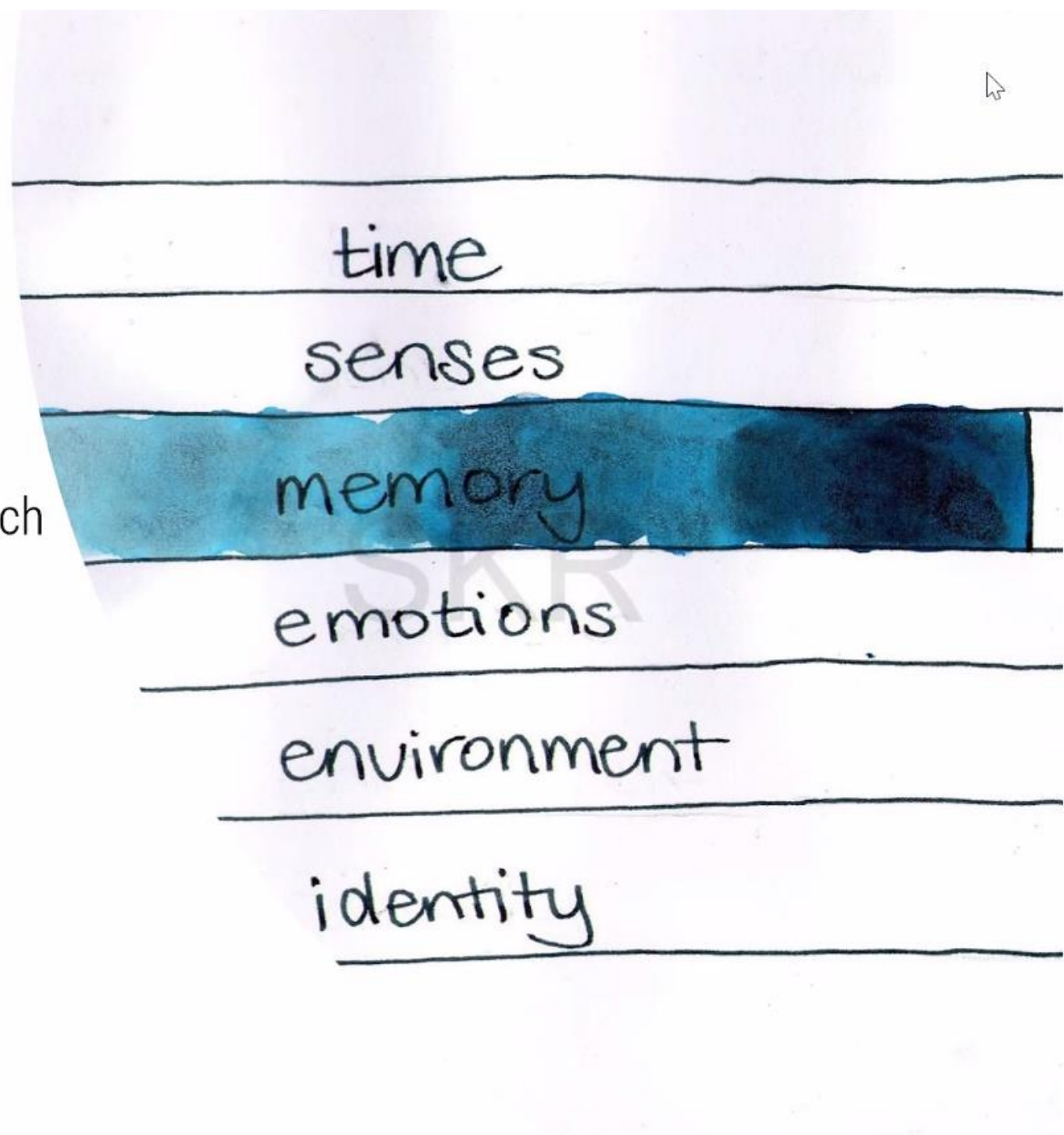
(Goldsmith, Barlow, & Freyd, 2004)

- The severity and chronicity of trauma determine dissociative tendencies
- "***Betrayal traumas***" such as CSA and/or PA result in the experience of dissociation more so than things like accidents
- Dissociation during IPV could lead to "**betrayal blindness**"
- Substances can promote dissociation

What is Dissociation?

(International Society for the Study of Trauma and Dissociation)

-
- "...the disconnection or lack of connection between things usually associated with each other. Dissociated experiences are not integrated into the usual sense of self, resulting in discontinuities in conscious awareness" (p. 1)



Four Dimensions of Consciousness Affected by Psychological Trauma

(Frewen & Lanius, 2015)



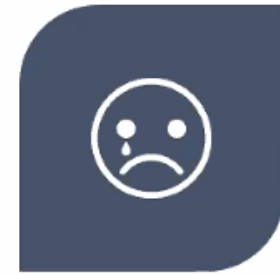
TIME
(TEMPORALITY)



THOUGHT
(NARRATIVE)



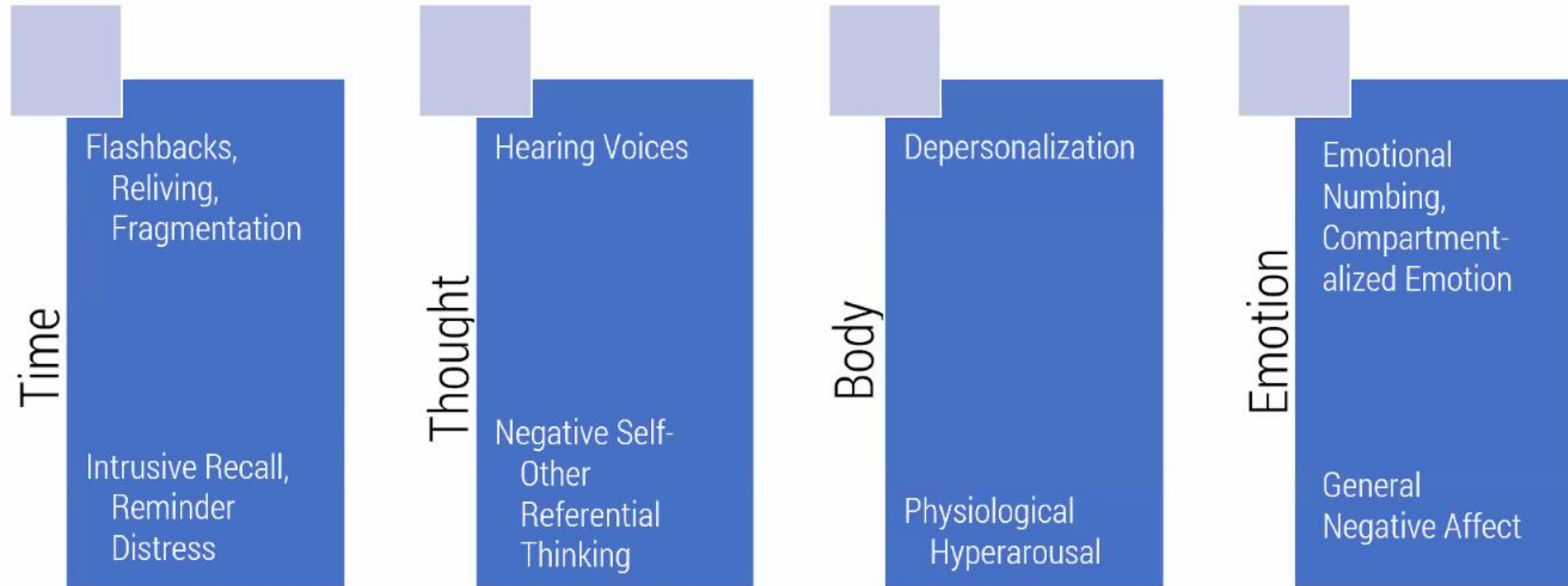
BODY
(EMBODIMENT)



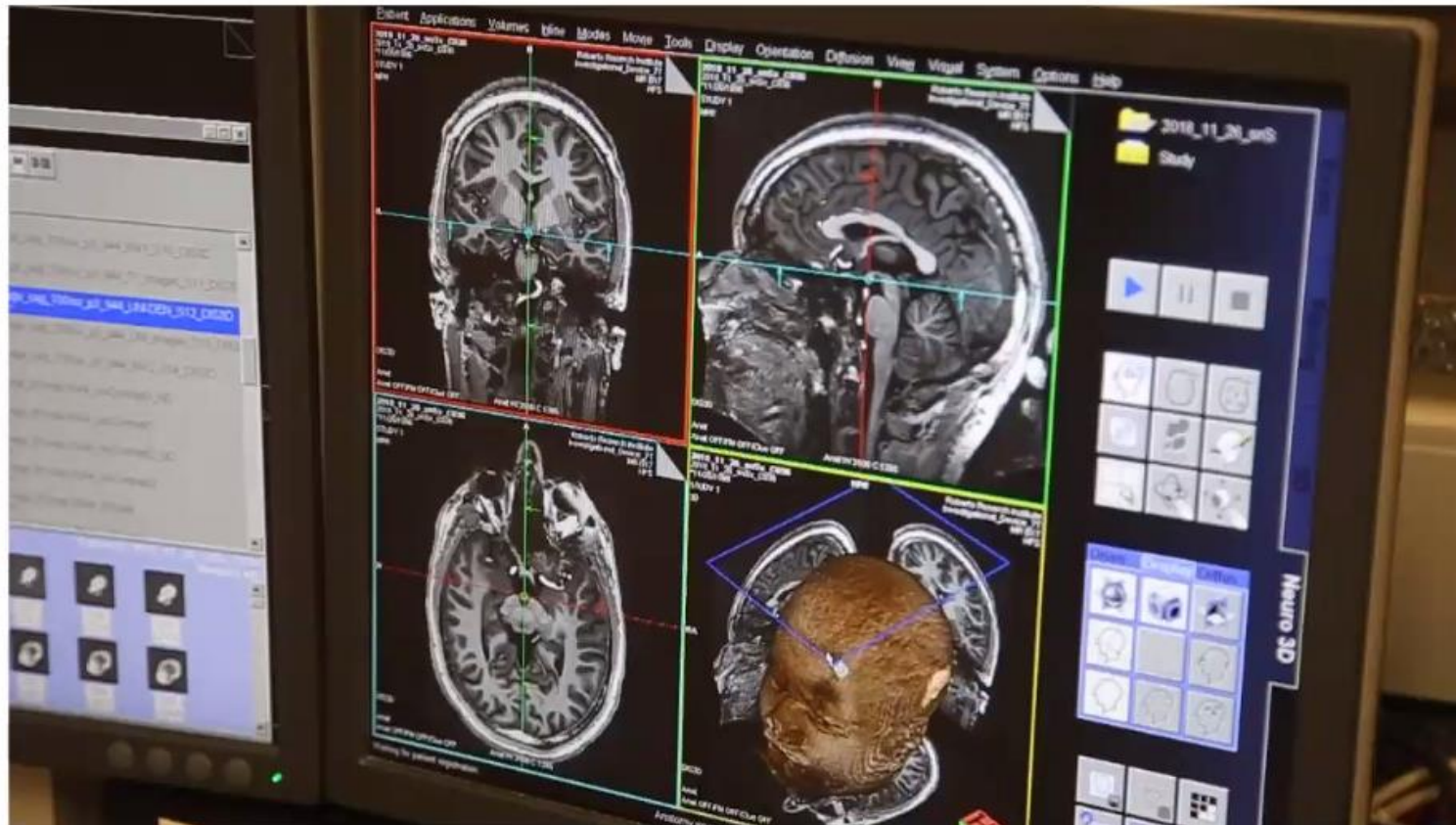
EMOTION
(AFFECT)



4-D Model of the Traumatized Self



Neurophenomenology



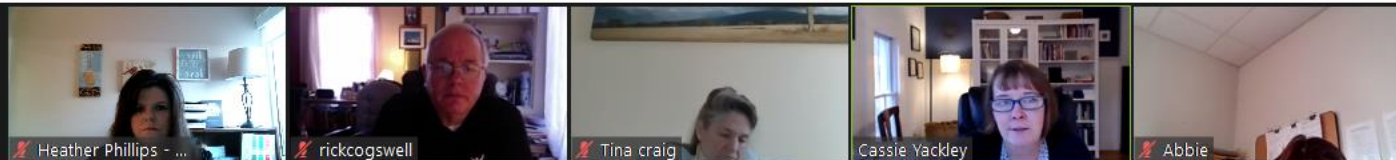
Molli: Presenting Issues

Molli is 13 years old and currently in the 9th grade, though she does not attend school on a regular basis, despite her placement in a specialized school for behavioral and emotional problems. Molli is bright and verbally capable, but she does not participate in classes, fails to complete her schoolwork, and is absent so frequently that it impacts her ability to learn. Molli is easily frustrated by interactions, often leading to her screaming at the others and running away from the situation. With teachers, Molli is oppositional and defiant, yet she requires almost constant attention in class in order to minimize the disruptions she causes other students. Molli frequently reports to school administrators about other people's behavior toward her; often she complains about unfair treatment by her teachers, blames other students for conflicts, and states that she is "targeted" by staff at the school because they "hate her." While Molli is quite popular with her peers, her mood fluctuates dramatically and during off days she can be rude and aggressive towards others (even those whom she considers friends).



Molli's Teachers

Molli's teachers all comment about how bright and capable she is academically and about how much her behavior interferes with her ability to learn (and for those around her to learn). They indicate that they are overwhelmed with her need for constant one-on-one attention from everyone and express concern about the amount of time she requires to manage in the classroom. Teachers say that Molli explodes out of nowhere and without provocation, she is defensive and edgy when her behavior is addressed, she seems to have a limited ability to take the perspective of others, and she is sexually promiscuous. Reportedly, Molli does not pay attention in class and makes inappropriate comments to other students while they are trying to teach. One of Molli's closest teachers said that despite the fact that they have become closer in their relationship, Molli seems to push her away for no reason and to be intensively interpersonally sensitive (which often leads to resentment on Molli's part if problems are brought up).



Denise White



System of Care Intervention with Molli

Molli (and her family) were recently referred to the System of Care program in NH for youth at risk of out-of-home placement by her mental health therapist's community mental health agency. Despite having been in therapy since age 5, treatment has been largely unsuccessful for Molli and her family. Molli's parents divorced when she was five years old after years of a conflictual relationship. Molli's parents attribute their fighting and eventual separation to Molli's extreme behaviors and their fights about how to address them. Molli was diagnosed with ADHD in treatment originally due to her hyperactive and distractive nature but was diagnosed shortly thereafter with oppositional defiant disorder to reflect the problems she was already having with authority figures. Molli blames her parents for the problems she has and states that "their fighting destroyed me." The mental health center states that Molli is in need of a higher level of care than they are able to provide given her risky behaviors.

Participants (52)

Find a participant

Waiting Room (1)

Message

V V Murphy

Joining...

In the Meeting (52)

HP Heather Phillips - Mt Washin... (Co-host, me)

C Cassie Yackley (Host)

A Abbie

A Adam

yes no go slower go faster more clear all

Invite

Mute All

Chat

adult attachment oo - much better

From Catalina Kirsch, C3PH to Everyone:
IPV? violence?From Me to Everyone:
intimate partner violenceFrom Catalina Kirsch, C3PH to Everyone:
thank youFrom Casey Marcotte -York County to Everyone:
I like how she referred to it as a mental injury.From Me to Everyone:
yes!From Clarisa Sanchez to Everyone:
very!From Nancy Sheridan, (she/her) to Everyone:
Also moral injury

To: Everyone

File

Type message here...

System of Care Intervention with Molli

Because of Molli's erratic mood difficulties interpersonally, Molli is referred to her PCP for medication. During the course of that care, Molli discloses that she has been engaging in self-harming behaviors, experimenting with alcohol and prescription drugs, and has been sexually active with multiple partners without using protection. Furthermore, as Molli's aggressive and self-harming behaviors have escalated, she has been evaluated multiple times at the hospital emergency department order assess her safety. Hospital staff have expressed concern regarding the potential "secondary gain" that she is getting from her visits. Molli was also referred to juvenile justice by her mother in attempt to pursue a "CHINs petition" as she feels Molli's behavior is largely out of her control already. A psychological evaluation has been ordered but not conducted. Molli's parents have been challenging to engage despite their requests for help. The both claim that a residential placement is the "only thing that will work" at this point.

Molli: History/Experiences

- Born 4 weeks pre-mature and spent 4 weeks in the NICU
- Exposed to parental DV from birth to age three
- Parental conflict and divorce
- Sexually abuse by maternal uncle
- Molli's mother has a history of child abuse herself, including sexual abuse by her father
- Father has a history of SUDs

What Does This Mean?



Provide the Disconfirming Experience



"I hate this \$^%&%. I'm
Not doing it."

"I don't care how he feels
about me hitting him. It
doesn't matter to me."

"I suck. I ruin everything."

"I'm just a piece of trash anyway."

Core Shame/
Worthlessness

Negative Cognitive Triad

"What do you know.
You don't
understand
anything"

"Why bother trying,
nothing goes right
ever."

"Its not my fault. I
can't control it."

"Forget about it.
No one gives a
shit."

Others Aren't
Trustworthy

The World/
Future is Bad

"That's not fair – it is BS"

"I don't need
your help or
anybody else."

"I hate this \$^%&%. I'm not doing it."

"I don't care how he feels about me hitting him. It doesn't matter to me."

"You feel miserable writing this. Writing can be really hard. What do you need to get a fresh start?"

"You can't even go there right now. Why would you care about him or your relationship?"

Core Shame/
Worthlessness

Negative
Cognitive
Triad

"What do you know. You don't understand anything"

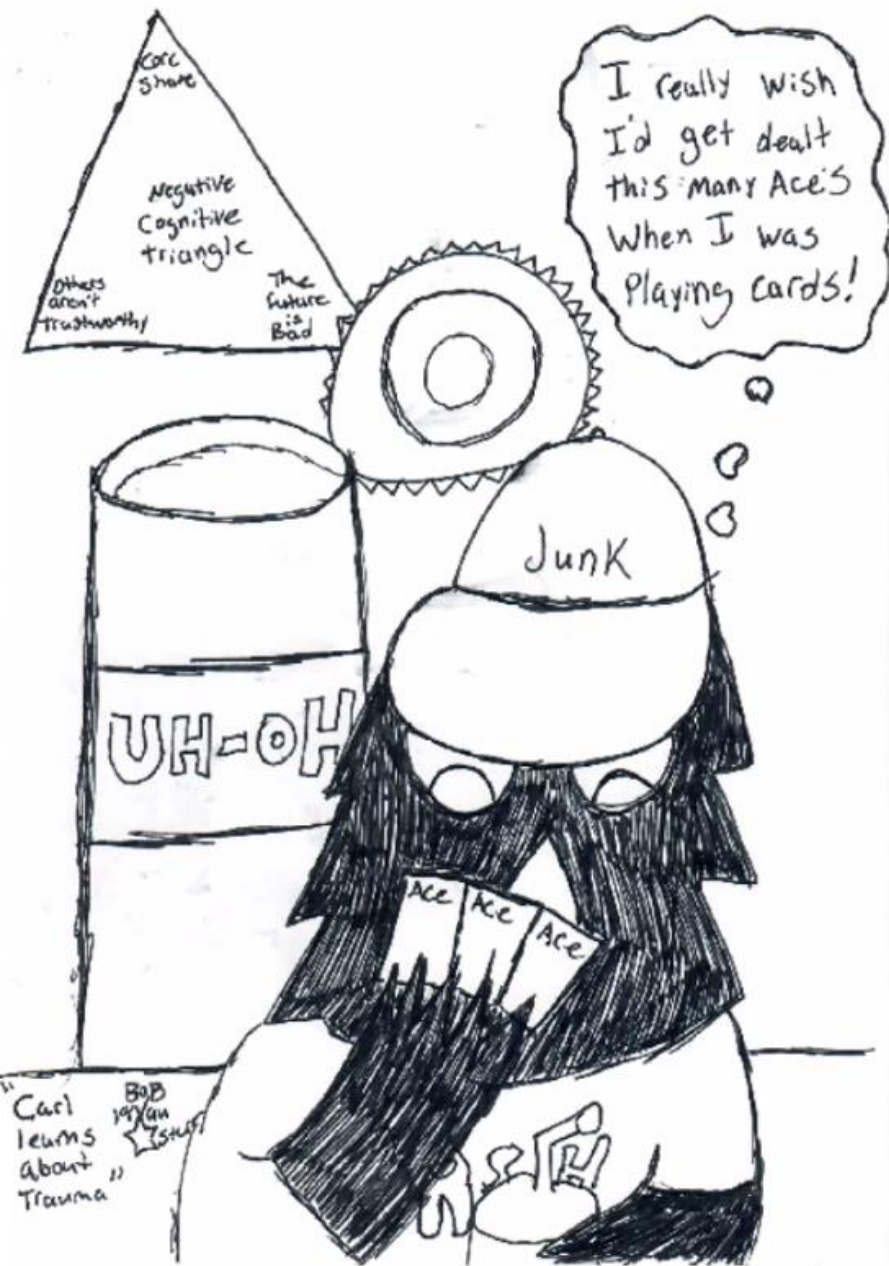
"Its not my fault. I can't control it."

"Your right. I don't know what your life is like, but I'm open to learning. What would be more helpful?"

Others Aren't
Trustworthy

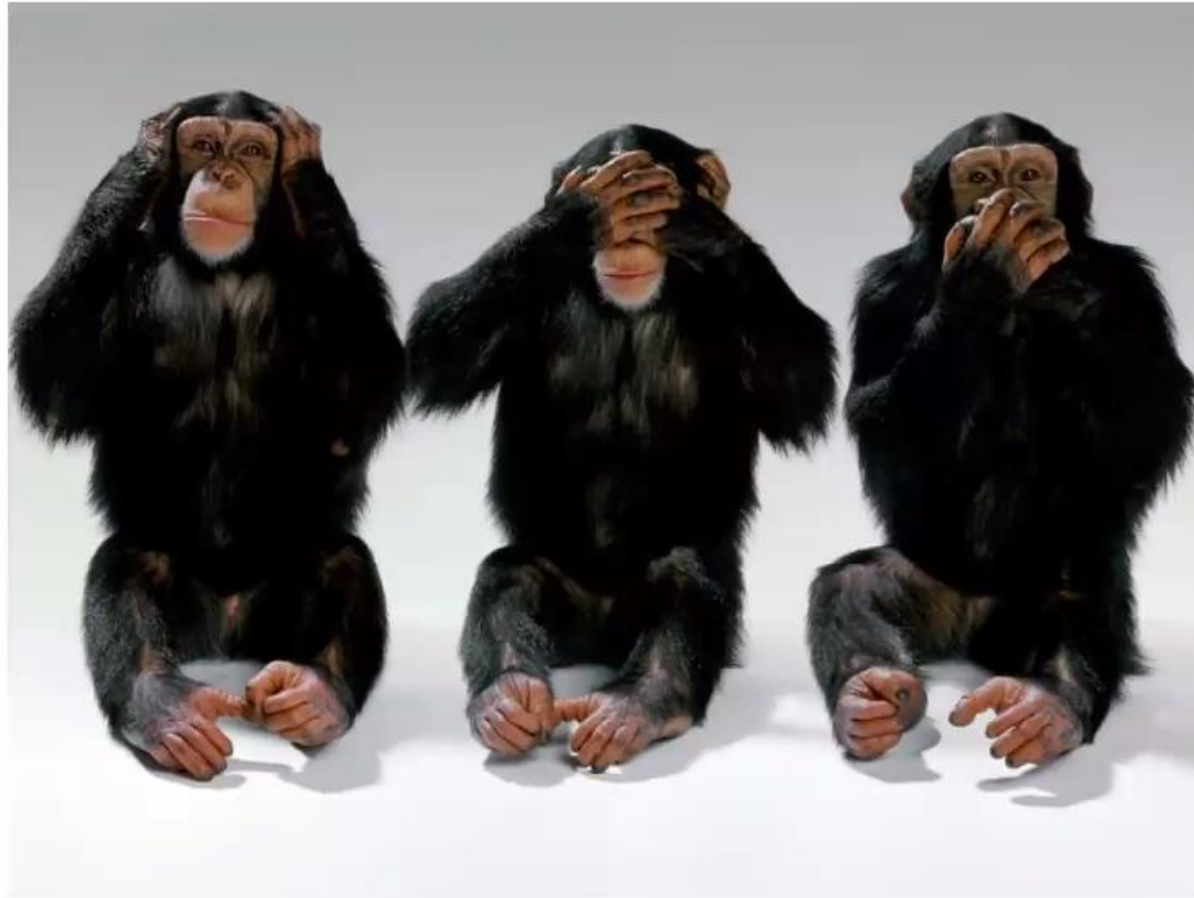
The World/
Future is Bad

"It doesn't feel like you have any control over the situation. Go figure, you life has thrown you some curve balls? I bet life feels out of control for you sometimes."



Why Didn't Anybody Ask?

What is Known But Can't Be Spoken



How to people change?

