EMDR THERAPY

The Theoretical Underpinnings of EMDR Therapy

AGENDA

- Efficacy of EMDR as a researched-based protocol
- AIP model basis for EMDR
- Arousal and Window of Tolerance
- Eight phases of EMDR
- Other factors
- Case study and video

EMPIRICAL STATUS
SHAPIRO (2014)

- Considered A level treatment for trauma
- More than 20 randomized control trials (RCT) support the use of EMDR therapy with a wide range of trauma populations
- More than 20 additional RCT demonstrate positive effects of the eye movement component

WORLD HEALTH ORGANIZATION (2013)

- American Psychiatric Association (2004)
- Israeli National Council for Mental Health (2002)
- Department of Veterans Affairs & Department of Defense (2010)
- National Institute for Clinical Excellence (2005) Along with TR-CBT
- SAMHSA's National Registry of Evidenced-based Programs and Practices (2011)

EMDR RESEARCH AND CHILDREN

- Zagrout-Hodall, Alissa & Dodgson (2008) Building Resilience and Dismantling Fear: EMDR Group Protocol With Children in and Area of Ongoing Trauma, Outcome: Increased resiliency
- Fernandex, I. (2007) EMDR as treatment of post-traumatic reactions: A field study on child victims of an earthquake.
- Wadaa, N.N., Zaharim, N.M., & Atquashan, H.F. (2010). The use of EMDR in treatment of traumatized Iraqi children.

ACUTE ONGOING TRAUMA IN CHILDREN

- German Ministry of Health: EMDR Integrative Group Treatment Protocol (EMDR-IGTP) found to be very effective for treatment of traumatized children and adolescents after natural disasters or war (Jerero, 2016)

EMDR THERAPY

- Distinct integrative psychotherapeutic approach
- Compatible with other major orientations of psychotherapy (Shapiro, 1990-2016)
- Eight-phase approach that is led by an information processing model that guides clinical practice

CONTROLLED OUTCOME STUDIES

- Typically 3-6 sessions, 77-100% remission of PTSD with single trauma
- 12 or more session needed for multiple trauma victims
- EMDR compared to Prozac (van der Kolk et al., 2007)

COMPONENT ANALYSES

- Component studies testing variety of neurobiological hypotheses have supported theories of
  - Working memory
  - Orienting response
  - Reciprocal inhibition
  - REM sleep

RECIPROCAL INHIBITION

- “Between stimulus and response there is a space.” -Viktor Frankl
- An integral component of all effective trauma treatment
- Anxiety and relaxation cannot co-exist in the same time and place
- The pairing of exposure and relaxation

ORIENTING RESPONSE

- When human emotions have shut down (alexithymia) there tends to be a an absence of the **orienting response**
- The **orienting response**, or movement towards novel stimuli in one's environment, allows one to stay in the present
- Traumatized people typically have trouble sorting out relevant significant cues

ORIENTING RESPONSE

- Enormous amounts of information enters our senses each moment and could easily overwhelm our integrative capacity if we are unable to filter out irrelevant or insignificant information

- Traumatized people may have a selection process that is biased by hyperarousal states or a corresponding dulling of the senses that interferes with the ability to select and orient to relevant cues (Ogden, 2006)

ORIENTING RESPONSE

(Odgen, Minton & Pain 2006)

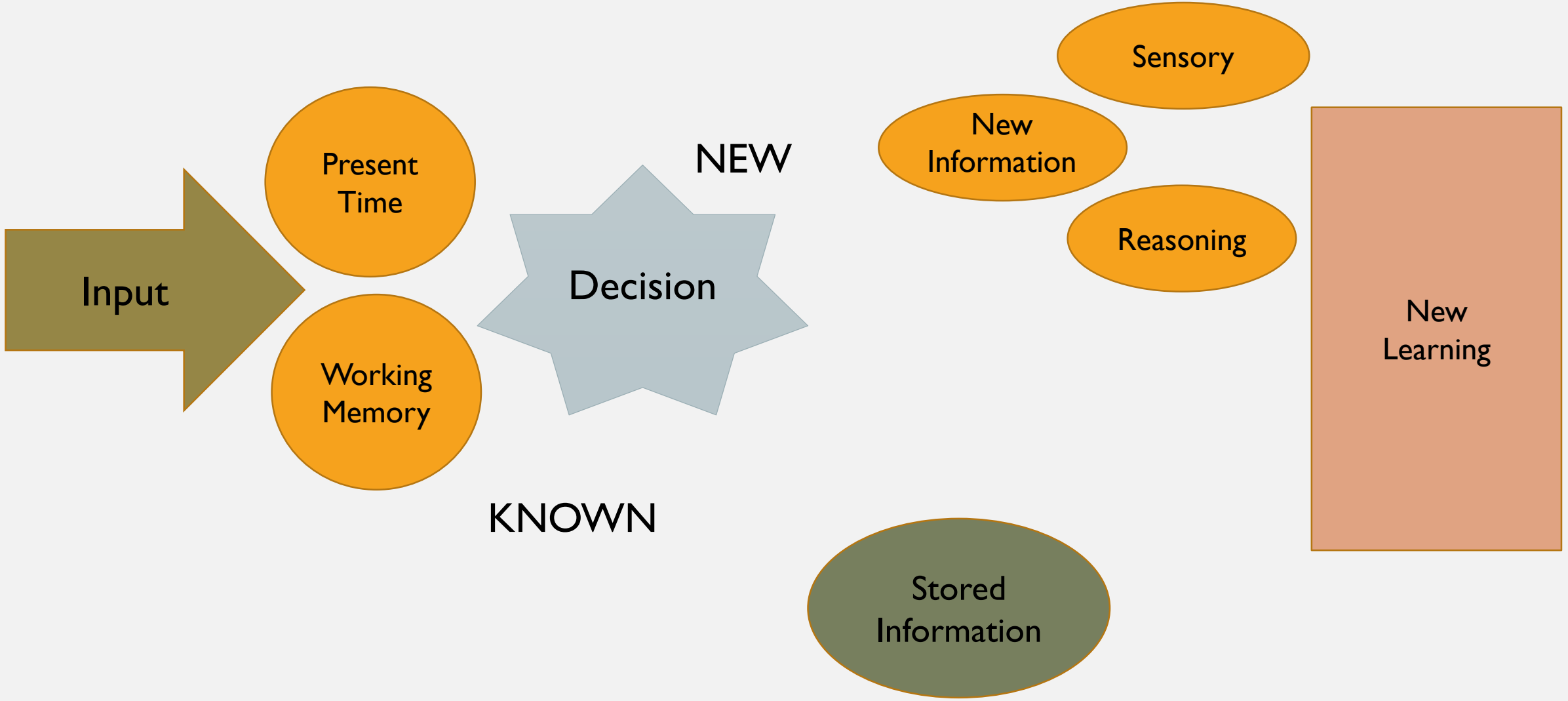
EMDR

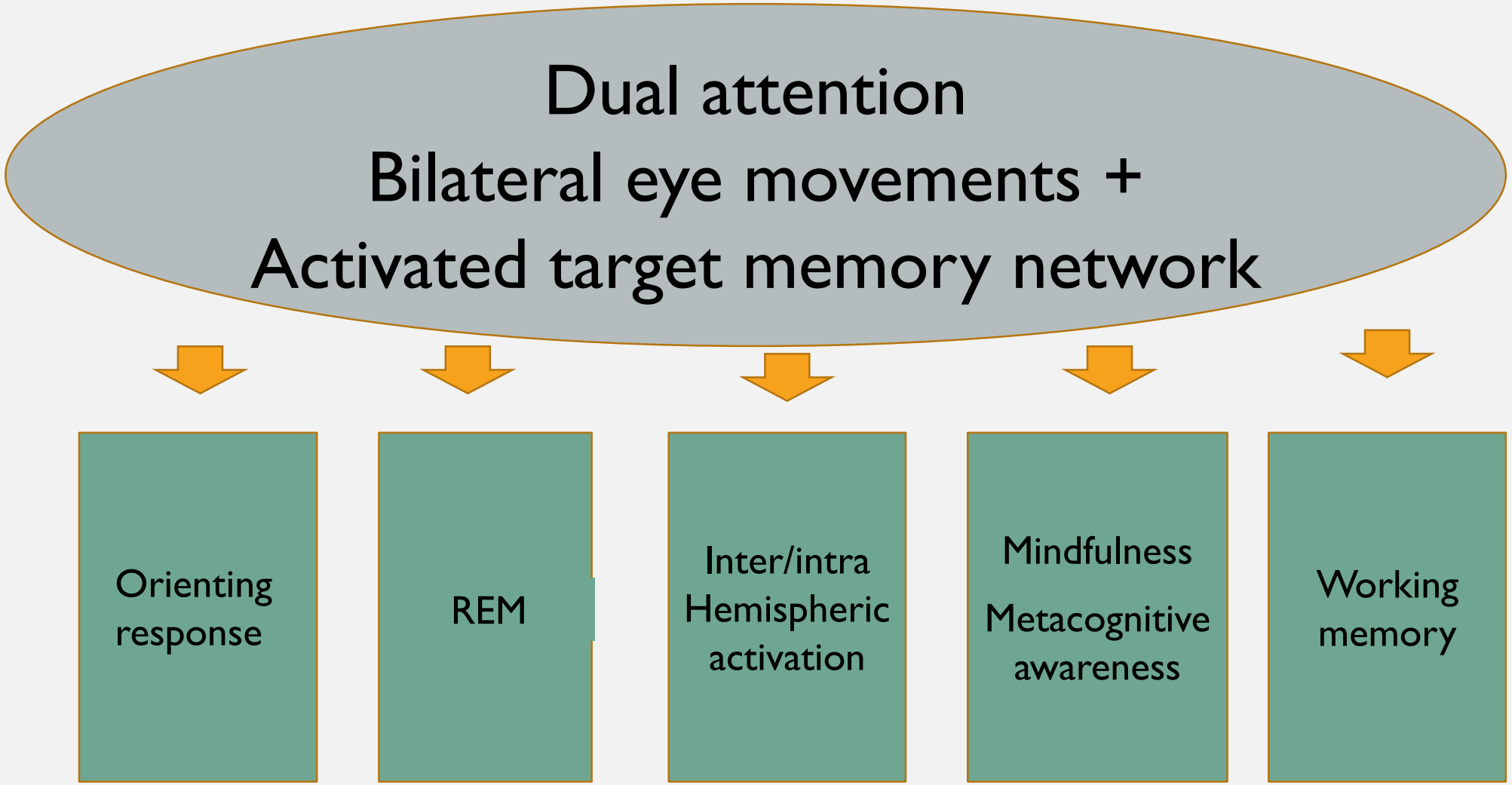
Why EMDR seems to work?

REM Sleep

Inherent Healing Mechanism

WORKING MEMORY

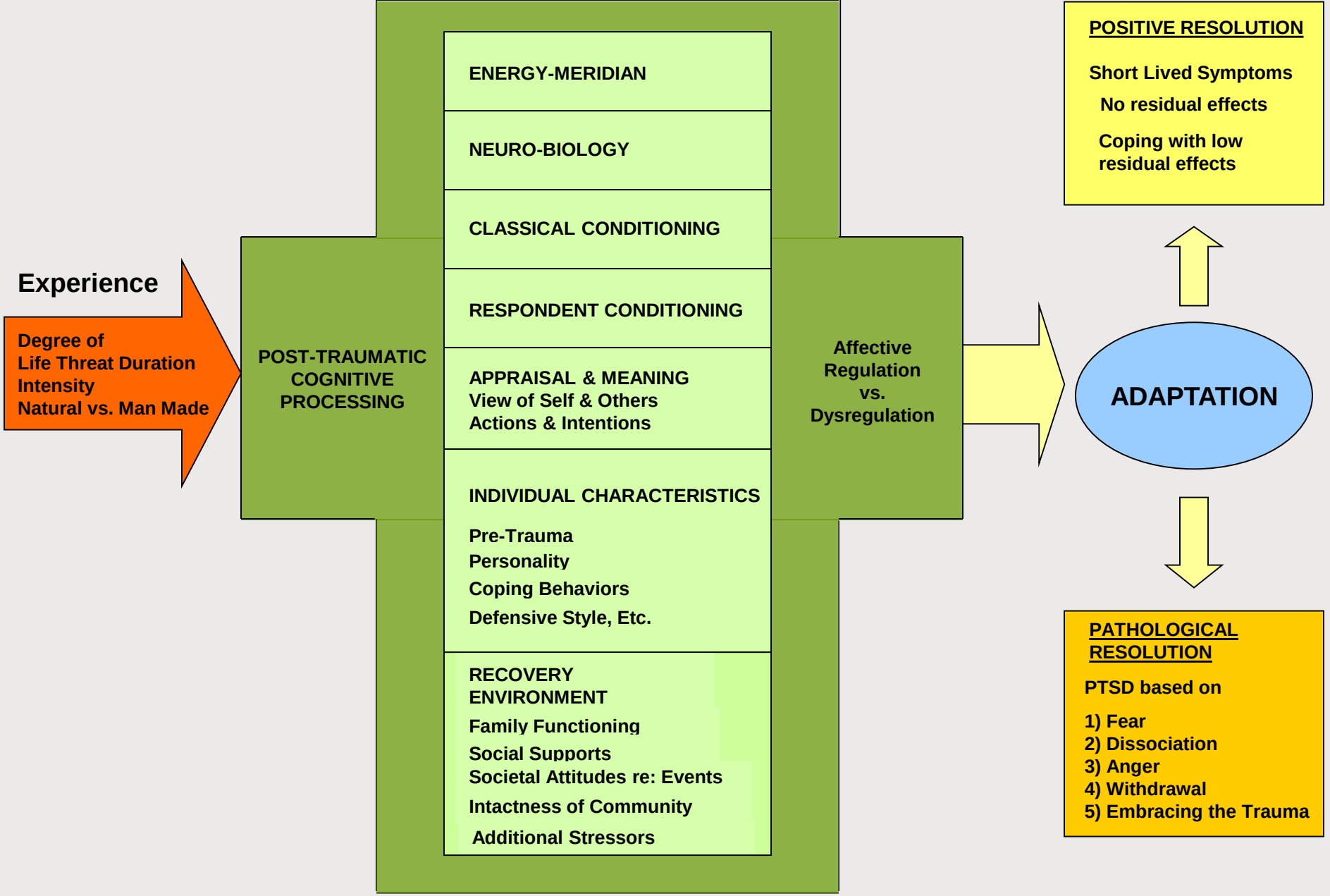



Dual attention
Bilateral eye movements +
Activated target memory network
Orienting response
REM
Inter/intra Hemispheric activation
Mindfulness
Metacognitive awareness
Working memory

Leeds (2016)

ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

- Guides clinical practice
- Provides theoretical framework and principles for EMDR therapy
- Clarifies how EMDR therapy works
- Efficiently explains the consistent treatment effects being obtained and reported



PTSD Model

Schwarz, R. (2002). Tools For Transforming Trauma, New York, New York:Routledge.

ADAPTIVE INFORMATION PROCESSING (AIP) MODEL

- Innate physiological system that helps transform disturbing information into adaptive resolution and new learning

- Inherent tendency of the information processing system to move toward a state of health

ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

- Foundation for EMDR
- The present is a manifestation of the past
- Reprocessing ➡ Adaptive Learning
- What is useful is learned and stored with the appropriate affect and is available for future use

ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

Human response toward survival/health

- Physical: cut heals
- Psychological: problems resolve
- Moves disturbances to an adaptive resolution creating functional memories

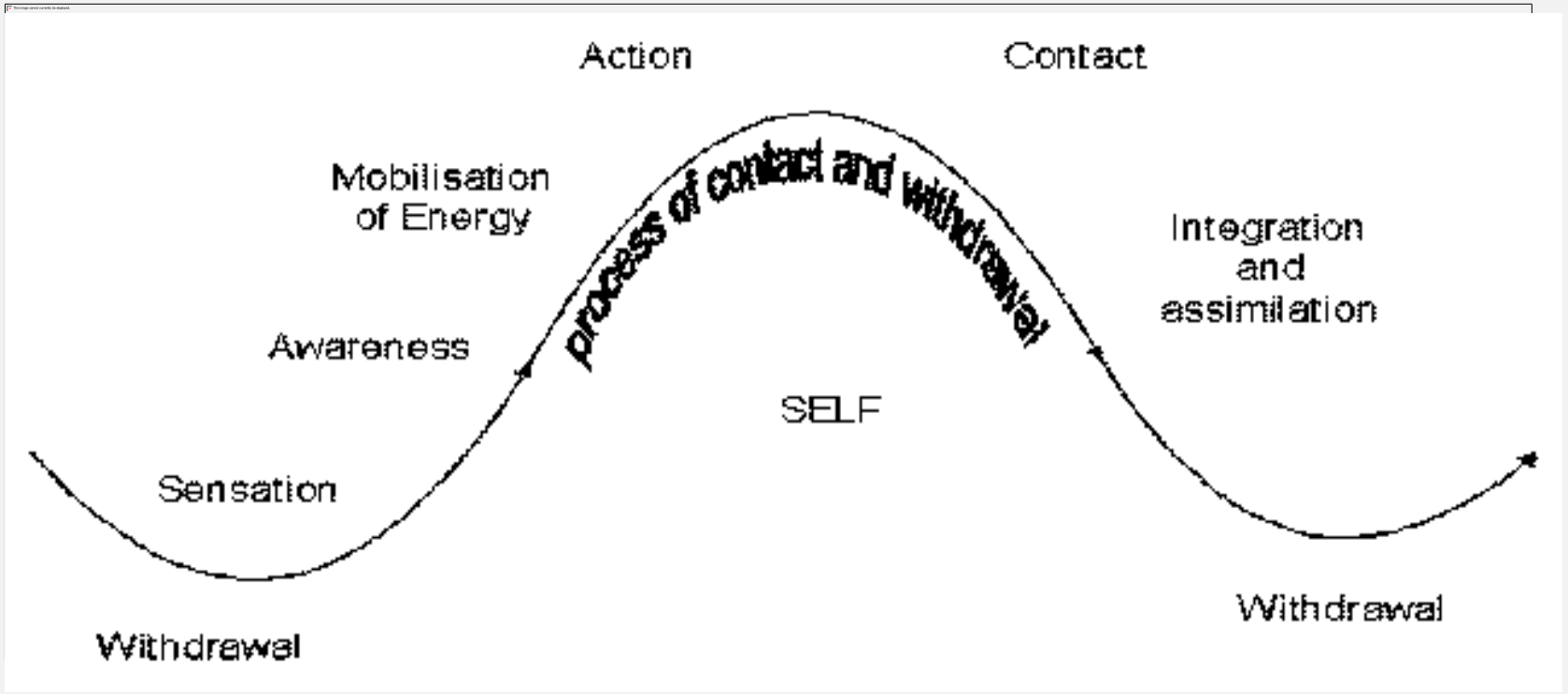
Learning occurs based upon current environment, perceptions, and knowledge

- Traumatic experiences (T's)
- Environmental conditions (t's)
- Developmental growth

Once you have been bitten by a snake,
you are cautious even of a coiled rope.

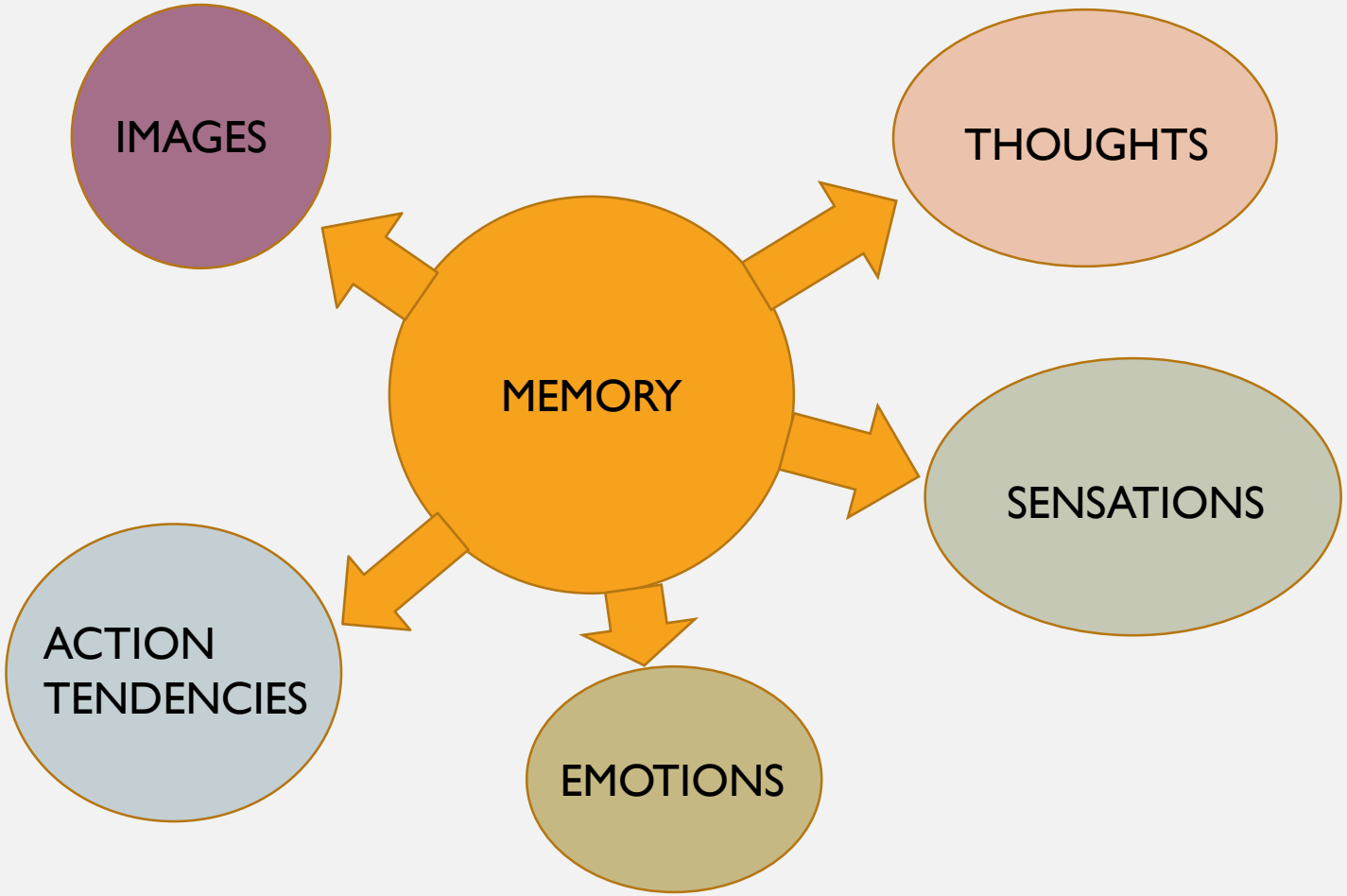
The Dalai Lama

GESTALT CYCLE OF EXPERIENCE



AIP MODEL

- Memories consist of stored information captured by our five senses
  - Thoughts
  - Emotions
  - Images
  - Sensations
  - Action tendencies

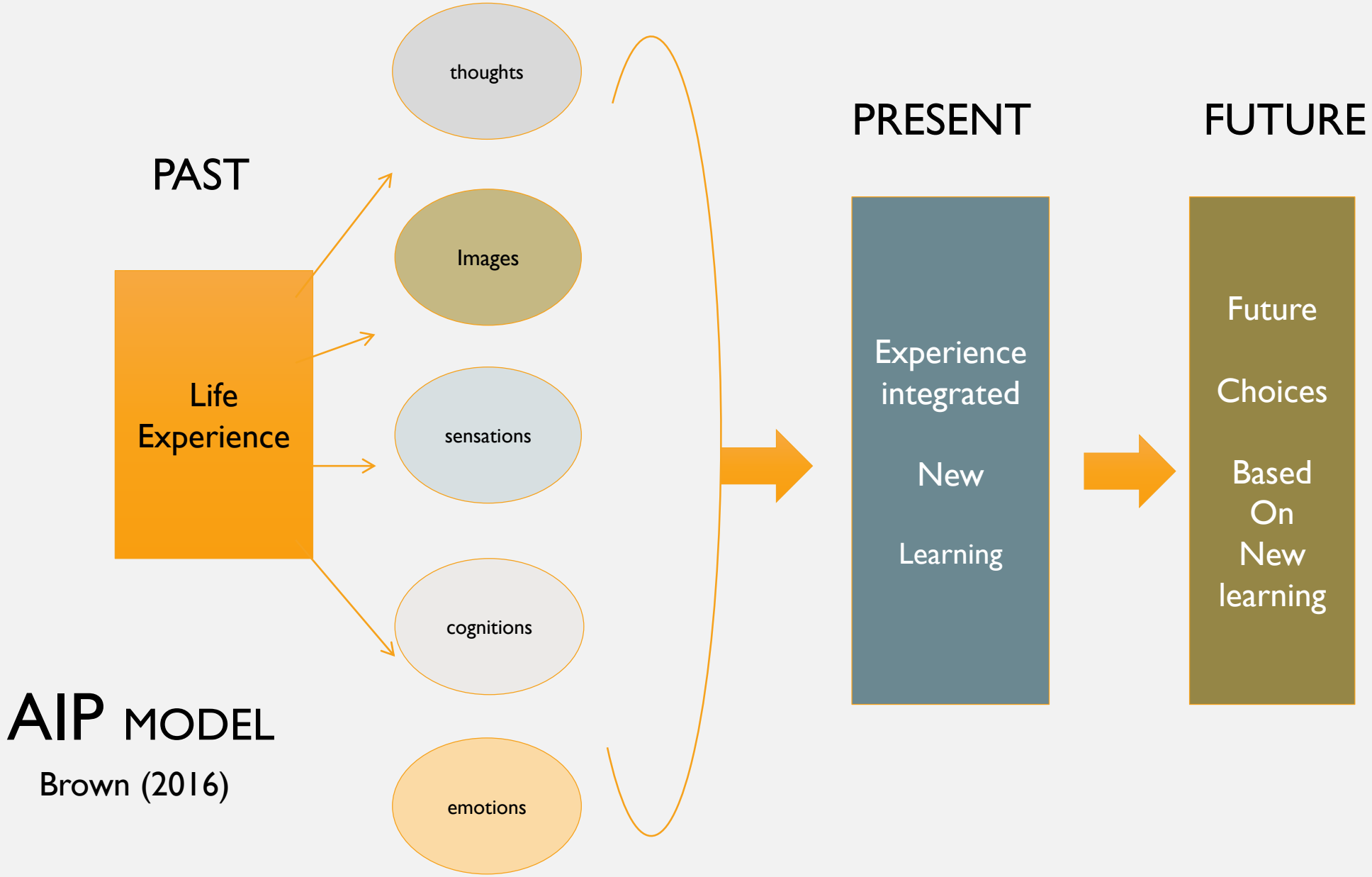

IMAGES
THOUGHTS
MEMORY
SENSATIONS
ACTION TENDENCIES
EMOTIONS

EMDR AND TRAUMA MEMORIES

- Memories are based after an event and are based upon perceptions
- Memories are made up of multiple parts that are stored in multiple parts of the brain
- Different senses process information differently
- EMDR accesses memories or components of memories that are unresolved in the system

WHAT IS TRAUMA?

PSYCHOLOGICAL TRAUMA

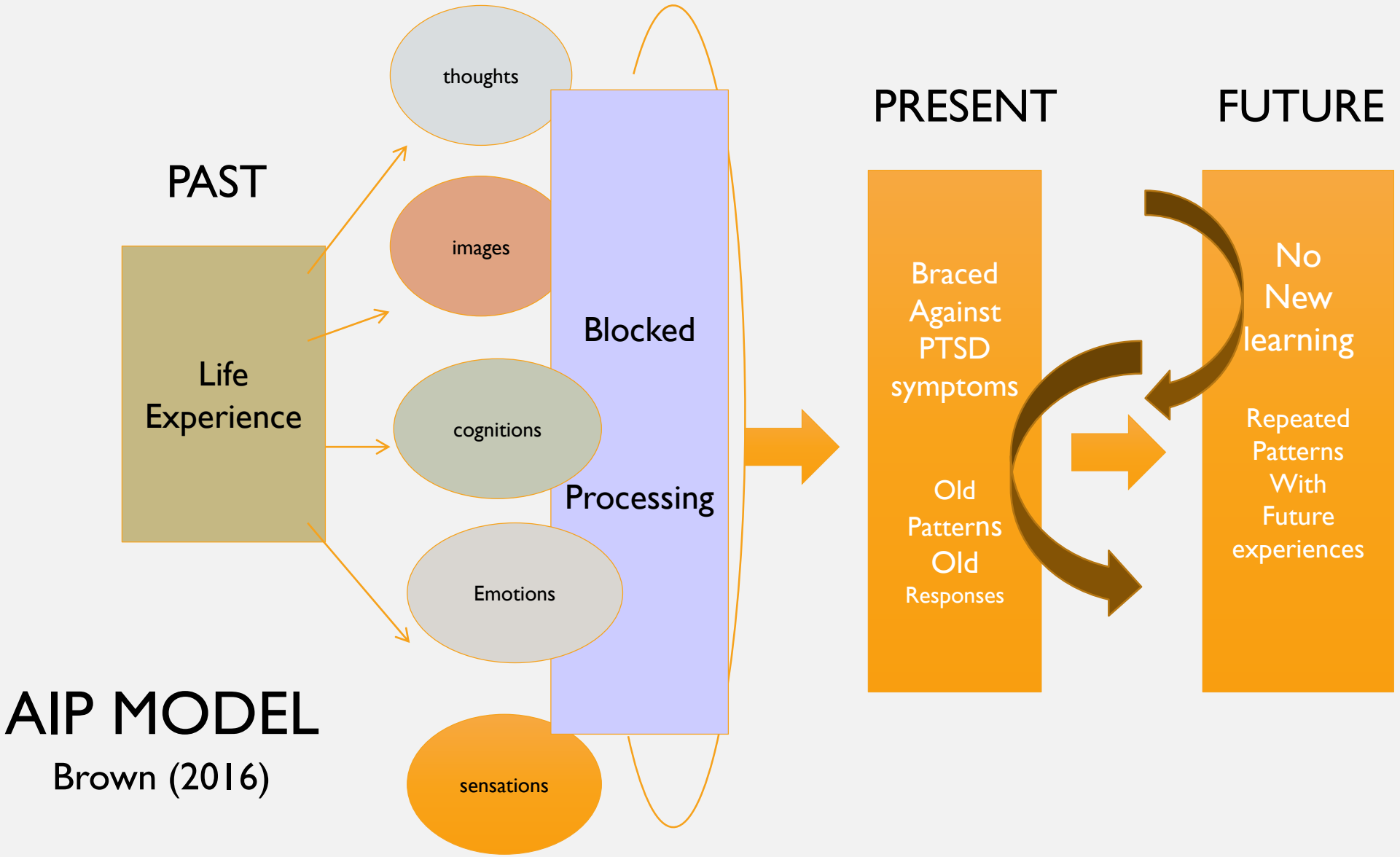


AIP MODEL

Brown (2016)

POST-TRAUMATIC GROWTH

- Greater appreciation of life
- Changed sense of priorities
- Relating - Greater intimacy and compassion for others
- Greater sense of personal strength
- New possibilities (new roles and new people)
- Spiritual change, being more connecte spiritually (Calhoun & Tedeschi 2006)



AIP MODEL

Brown (2016)

DISRUPTION OF ADAPTIVE INFORMATION PROCESSING

- Excess arousal from a traumatic experience
- Dissociation at the time of the event(s)
- Persistent stressors constraining adaptive responses during developmental life stage
- Other factors contributing to the inability to integrate aspects of life experience(s)

DISRUPTION OF INHERENT HEALING MECHANISM

Trauma's Affect on the Brain

Nervous system has impaired ability to stabilize and decrease sympathetic arousal

Leeds (2016)

Additional trauma further stresses a system that is already hyper-aroused

Shapiro (1995, 2001)

When the system becomes overwhelmed, the client is unable to access adaptive material

Leeds (2016)

IMPACT OF TRAUMA ON MEMORY

- Traumatic states may remain isolated from the normal integrative functioning and thus impair development (Siegel, 1999).
- The nature of traumatic memories hold heightened arousal and may interfere with declarative or explicit memory (Van der Kolk, 1994).
- Intense affect may inhibit proper evaluation and categorization of experience (Van der Kolk, 1994).

TRAUMA & MEMORY FOR ABUSE

- In cases of physical and sexual abuse, the greater the victim's dependence on the perpetrator the more likely that memory for the abuse will be impaired or disrupted

- Age was not a significant predictor of memory impairment, while caretaker status was. (Freyd et al, 2001)

- Trauma is stuck in the limbic brain
- Trauma exposure affects what one may anticipate and focus on
- How they organize the way they appraise and process information
- Trauma induced alterations in threat perception are expressed in how they think, feel, behave, and regulate their biologic system

Traumatized people live their trauma, not their lives.

Bessel van der Kolk

SAFETY AND TRAUMA

The social, cultural, and legal definitions and expectations of safety and risk often have little to do with how our nervous system reacts (Porges, 2016)

What is Trauma?

ADAPTIVE INFORMATION (AIP) MODEL

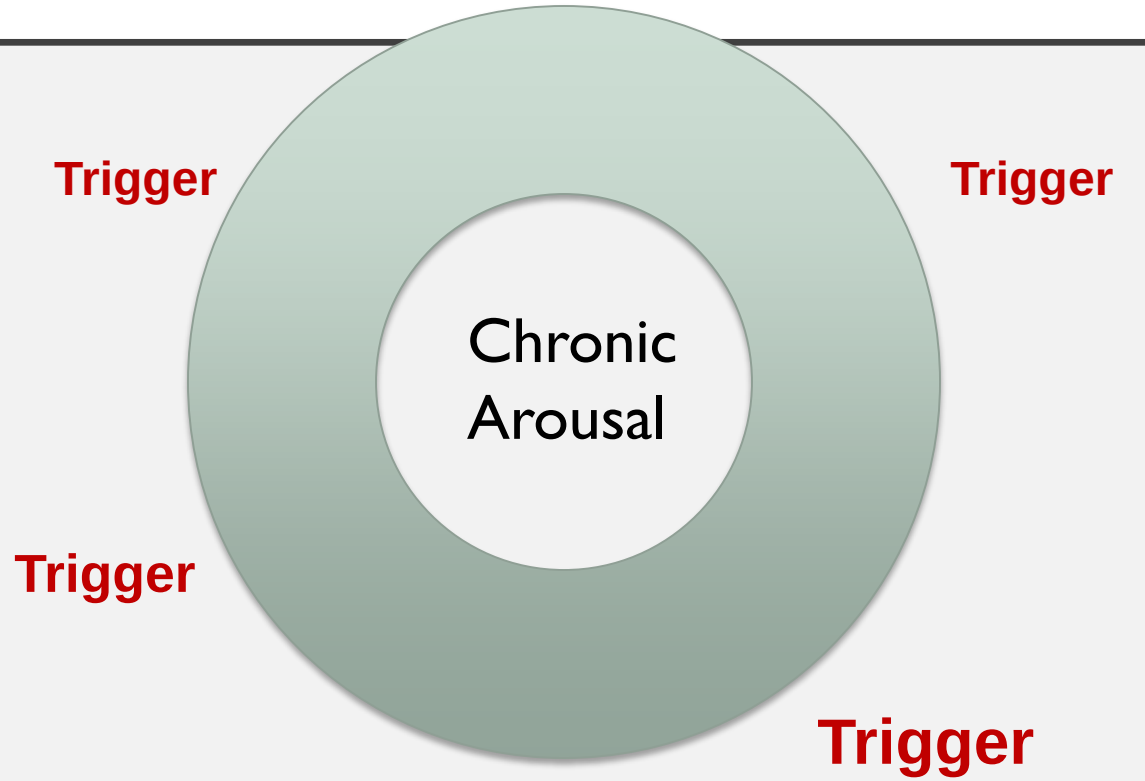
- Memory networks form the basis of our
  - Perceptions
  - Attitudes
  - Behaviors
  - Sense of self

INHERENT HEALING MECHANISM

Problems do not go away. They must be worked through or else they remain forever a barrier to the growth and development of the spirit.

M. Scott Peck, M.D.

CHRONIC AROUSAL

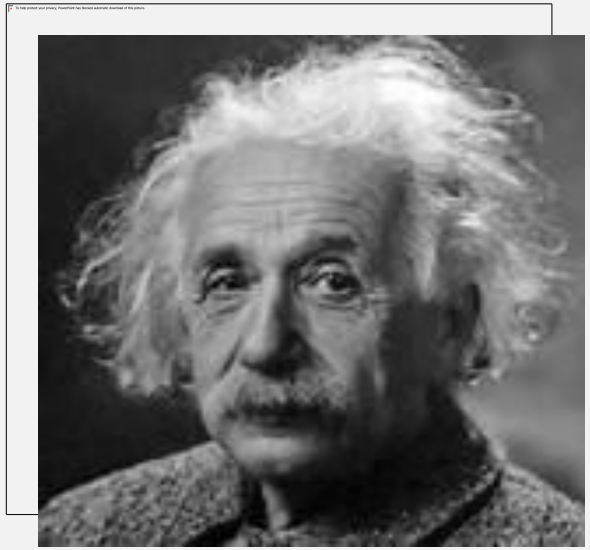


COMPLEX PTSD
(VAN DER KOLK, 1996, 2014)

- Alterations in affect regulation
- Alteration in consciousness
- Alterations in systems of meaning
- Alterations in relations with others
- Alterations in perceptions of self
- Alterations in perceptions of the perpetrator

ALBERT EINSTEIN

- We can not solve our problems with the same thinking we used to create them
- **Insanity**: Doing the same thing over and over again and expecting different results



ROOF REPAIR

TREAT SYMPTOMS

BILATERAL STIMULATION (BLS)
(KNIPE, 2015)

- Increase the vividness of memory material that is at the center of consciousness (Christmaan et al.2003)
- Reduce Sympathetic arousal (Elofsson et al., 2008; Sack, et al, 2007, Wilson, et al, 1996.)
- Reduce mental avoidance or disturbance by taxing "working memory" while decreasing "emotionality" of memory (DeJongh et al., 2013; Hornsvelt et al., 2010)

BILATERAL STIMULATION (BLS)

(KNIPE, 2015)

- Activate parasympathetic elements of orienting response (MacColloch & Feldman (1996): Sack, et al, 2007)
- Increase interhemispheric coherence in frontal areas, possible inhibiting PTSD memory intrusions (Propper et al., 2007)

BILATERAL STIMULATION (BLS)
(KNIPE, 2015)

- Increase capacity for "distancing/noticing" (Lee, 2008; Lee and Cuipers, 2013, 2014)
- May facilitate "slow thing," which relies less on intuition and implicit memory. And results in more objective assessment (Kahnerman, 2011)

POLYVAGAL THEORY

- Fight/flight, self-soothing, e.g. safe place, person, symbol
- Sympathetic arousal
- Hypervigilance to the environment
- Sensing danger
- Increased blood flow to enviornment
- Decreased blood flow to cortex

- FAUX

- Dual Awareness
- Attachment
- Safety
- Oriented to present

- FAUX_____
- Flat affect
- Disengagement with others
- Immobilization

POLYVAGAL THEORY
STEPHEN PORGES

- Responses to trauma are physiological
- It is the response to the trauma not the traumatic event
- The defense system has more than one strategy – all are adaptive
- There are three functionally different autonomic nervous systems that are adaptive

STABILITY

- Helping sustain an optimal arousal level (Siegel, 1999)
- Must gain some ability to tolerate positive/negative affect
- Social Engagement increases patients capacity to stay within the Window of Tolerance

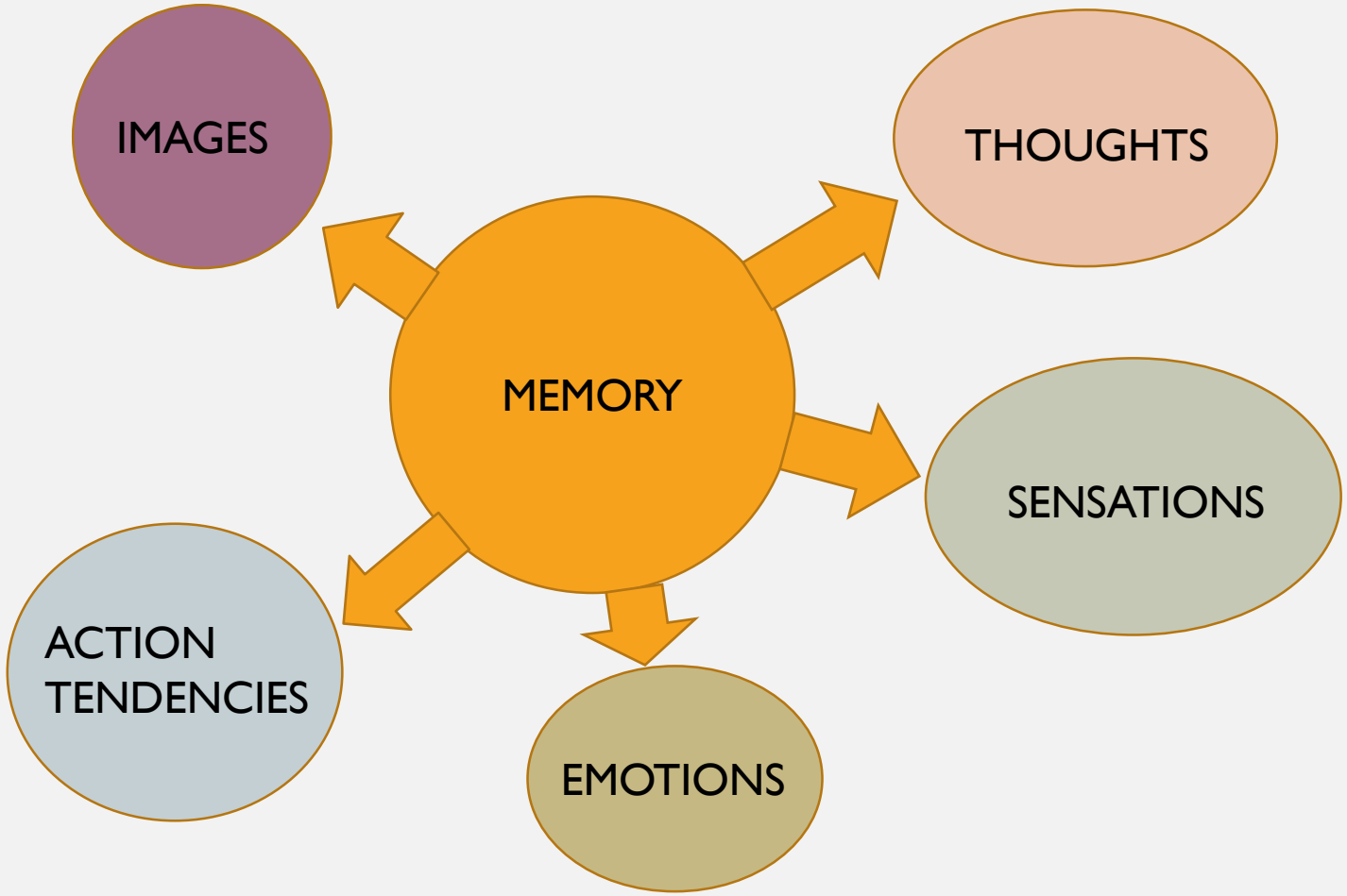
WINDOW OF AROUSAL
(SIEGEL, 1999)

- Arousal level too high: patient is overwhelmed and may experience intrusive symptoms
- Arousal level too low: patient will shut down, dissociate
- May experience continuous swings from one extreme to another, rapidly switching from numbing to flooding
- May experience trends of low or high with occasional switches such as occasional explosions of strong emotions
- States are not integrated and in conflict

EXPLICIT/IMPLICIT MEMORY

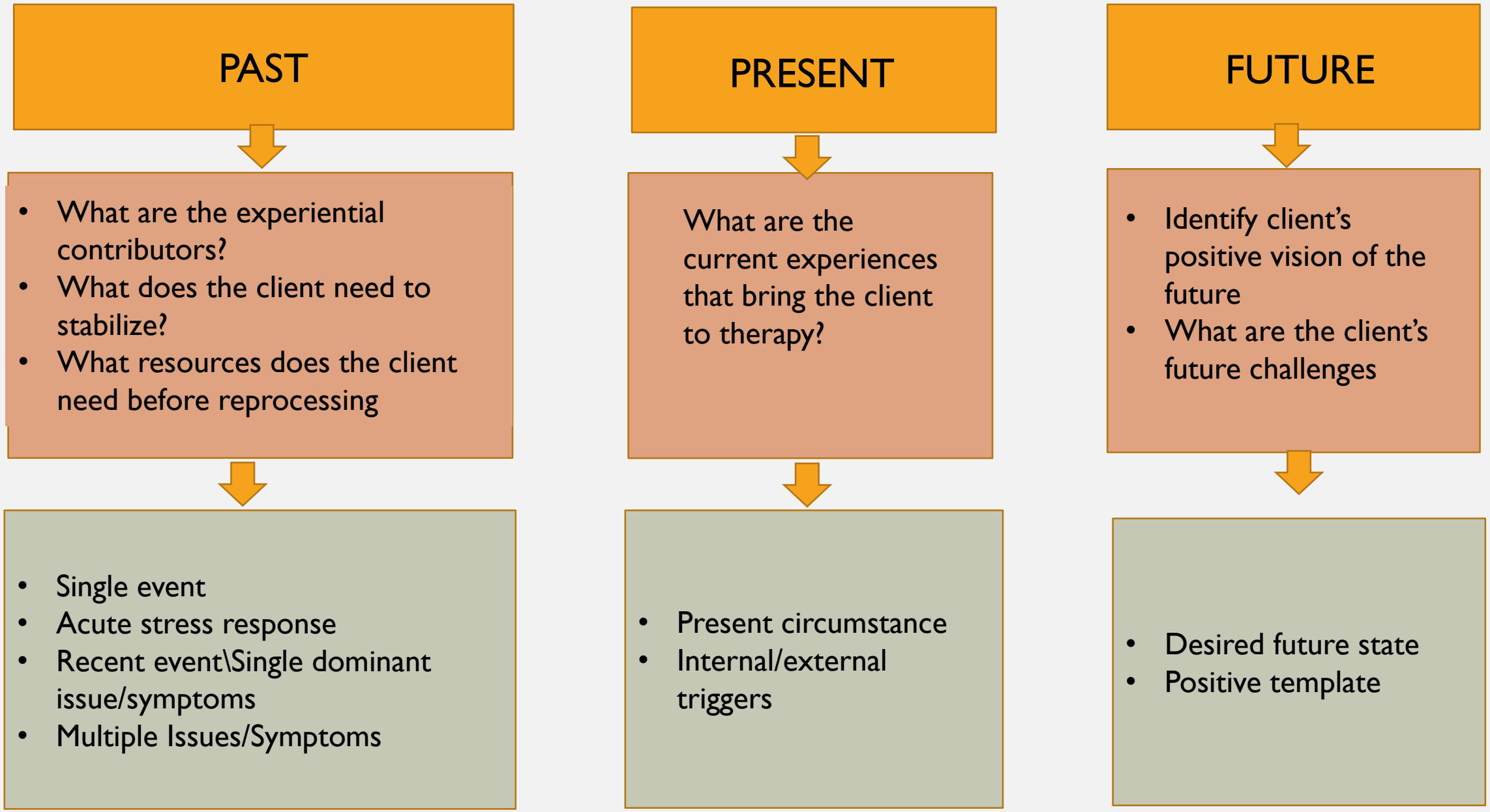
- Explicit: Your ability to recall learning; a conscious recollection of a past experience
- Implicit: encodes smells, tastes, sounds, body sensations, perceptions, emotions
- Cause us to form expectations about the way the world works based on our previous experiences

- Aspects of Memories
    - Sensory
    - Thoughts
    - Emotions
    - Sensations
    - Core Beliefs: encapsulates entire memory experience
- Memory Networks
    - Touchstone memory
    - Clusters of similar memories
    - Nodes: significant (- & +) memories


IMAGES
THOUGHTS
MEMORY
SENSATIONS
ACTION TENDENCIES
EMOTIONS

EVOLUTION OF EMDR THERAPY

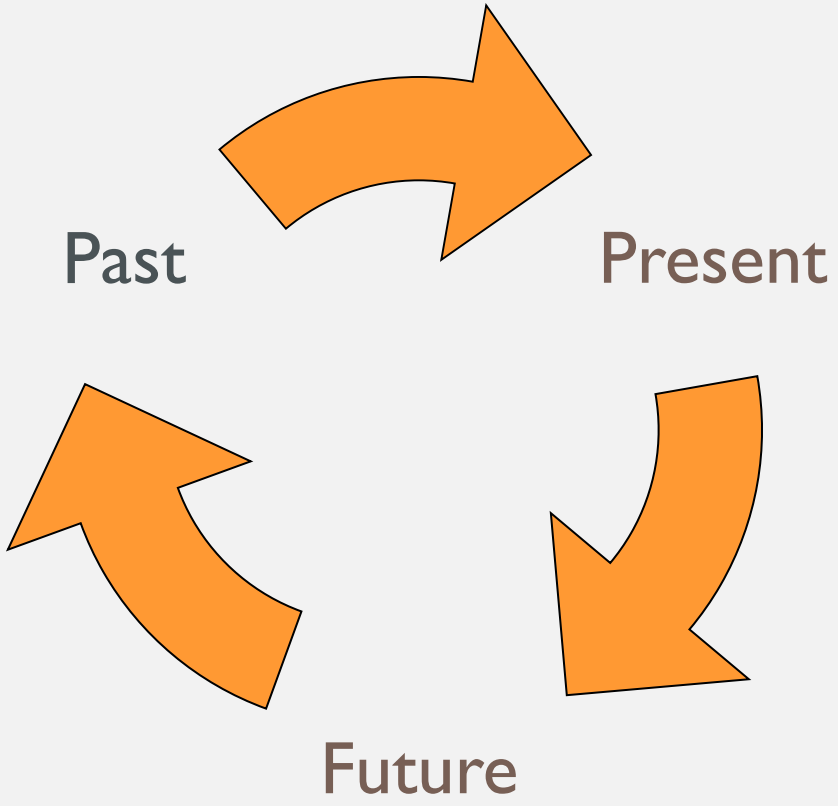
- **1987** Discovery of the effects of spontaneous eye movements EMD
- **1989** First controlled treatment outcome study of EMDR for PTSD
- **1990** EMD became EMDR, discovered other forms of bilateral stimulation (BLS)



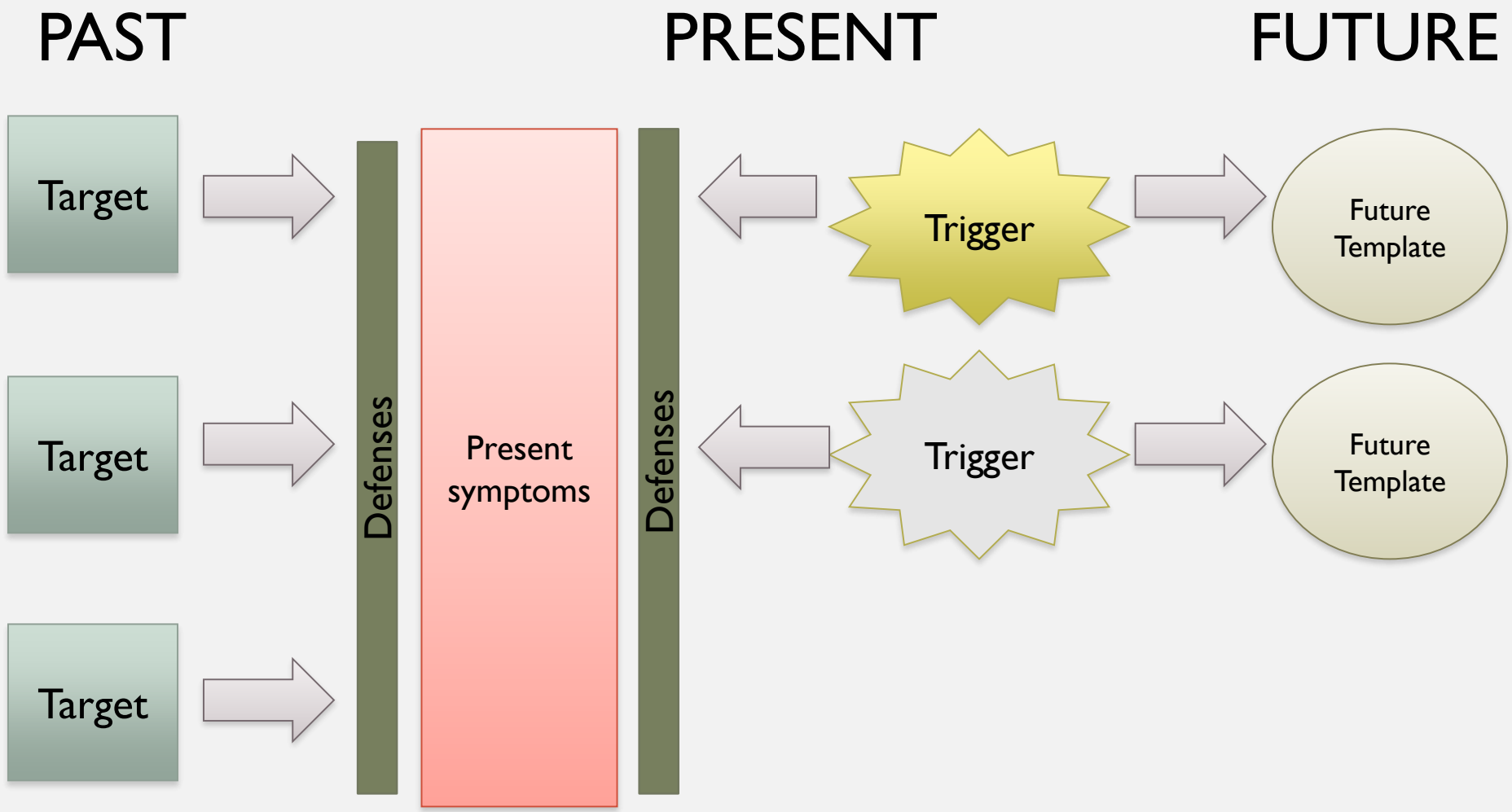
Hensley (2016)

WHAT IS EMDR ?

Three-Pronged Approach



CASE CONCEPTUALIZATION



TYPES OF TRAUMA

Impersonal – cause is impersonal

- Accidents, natural disasters

Interpersonal

- Abuse, neglect abandonment

Combined impersonal and interpersonal

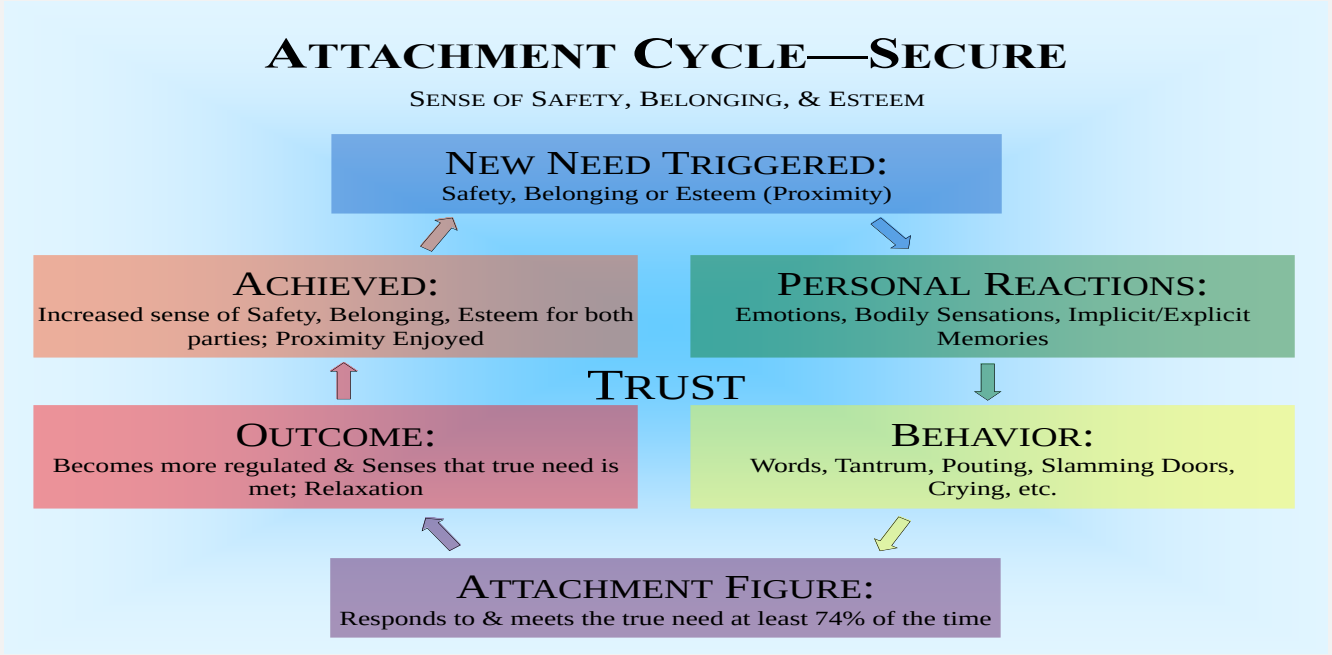
Attachment

- Occurs in attachment relationships: can be experienced and/or witnessed
- Abuse of all types, neglect, abandonment and non-protection domestic violence

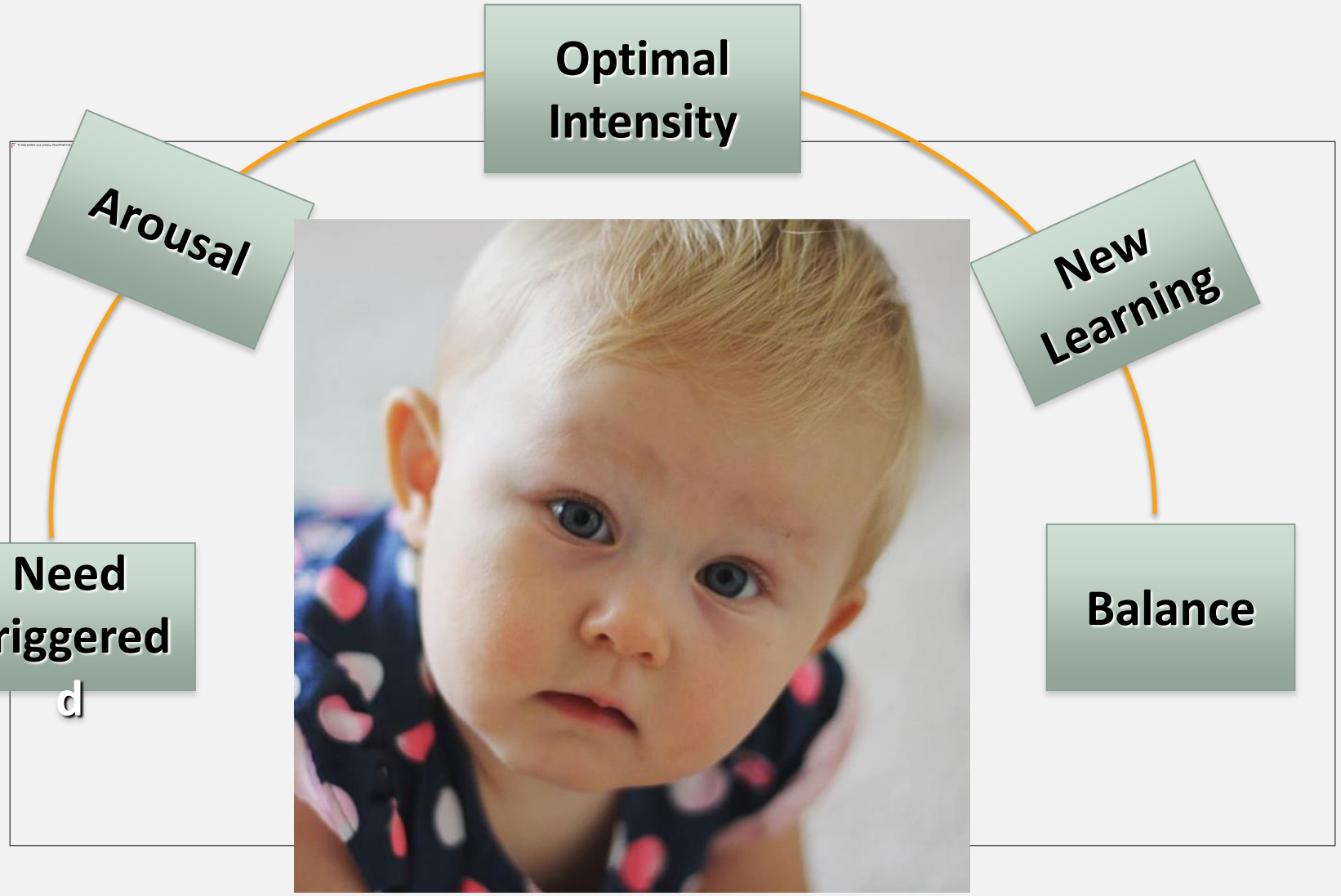
CASE CONCEPTUALIZATION

- Simple
- Acute Stress
- Recent Event
- Single Incident
- Comprehensive
- Complex Trauma
    - Dominant Symptom
    - Multiple Symptoms (Prioritize)
    - Chronological

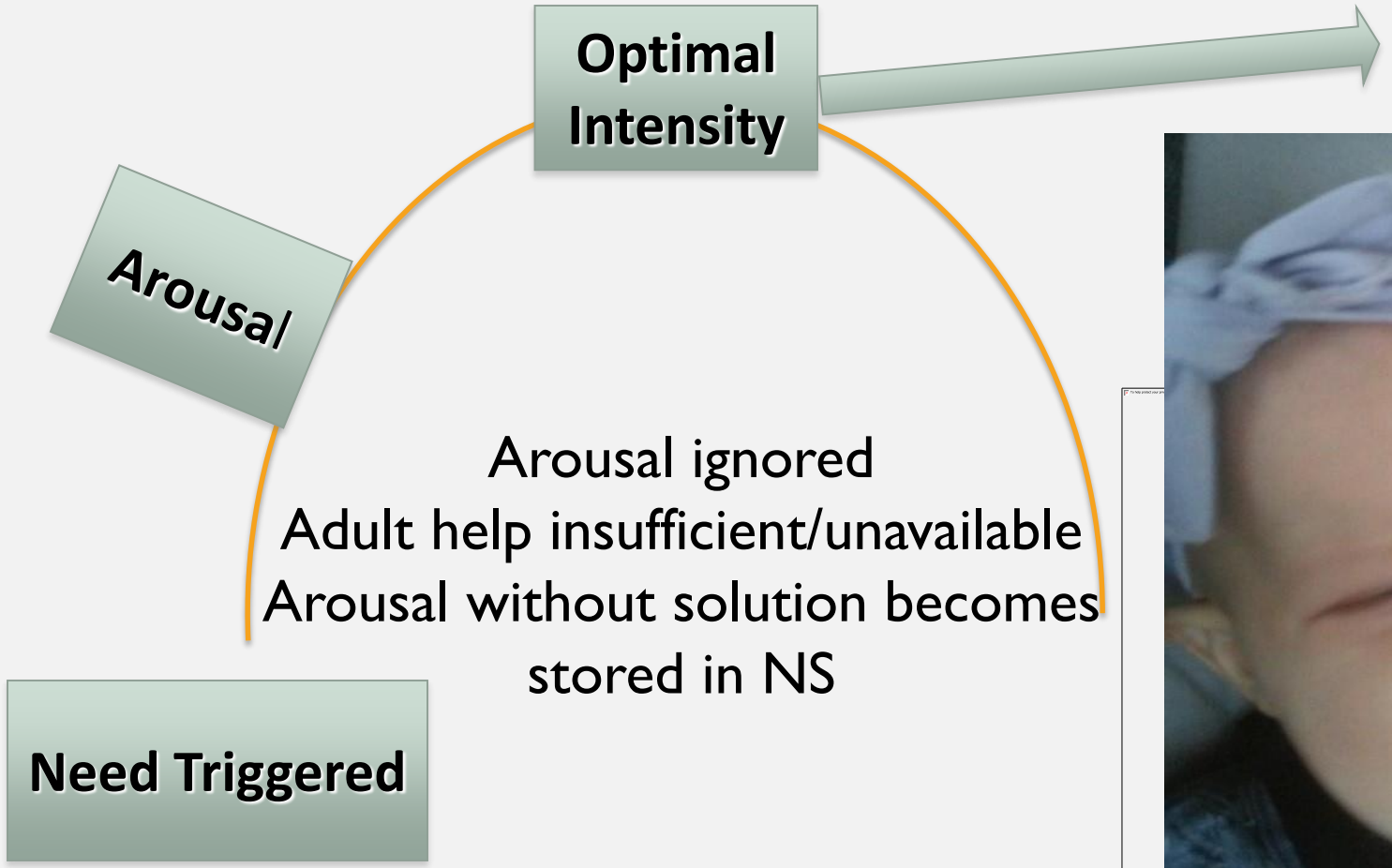
ATTACHMENT

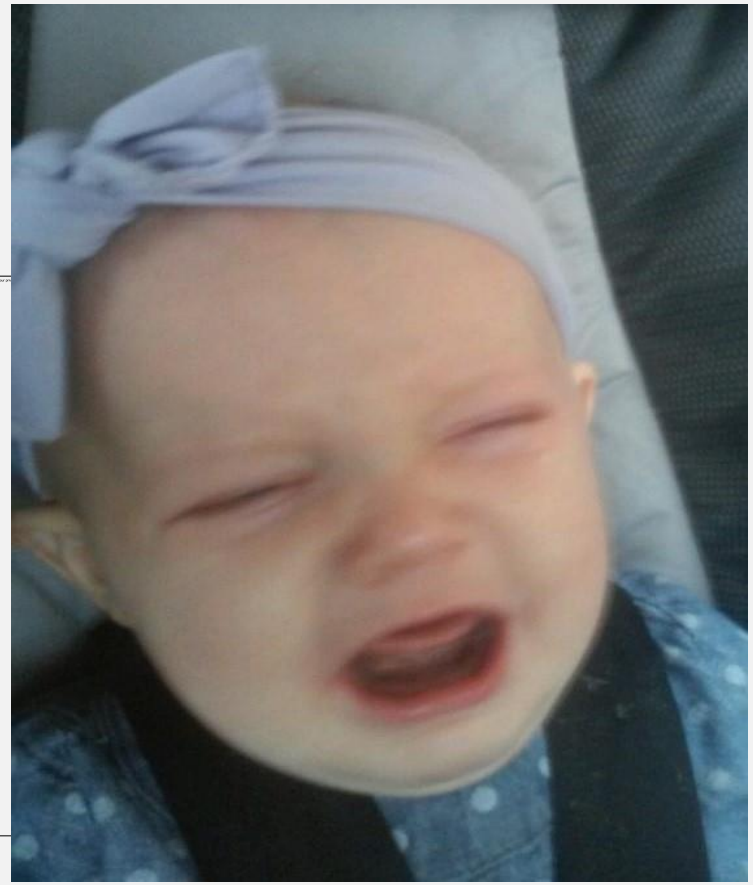

ATTACHMENT CYCLE—SECURE
SENSE OF SAFETY, BELONGING, & ESTEEM
NEW NEED TRIGGERED:
Safety, Belonging or Esteem (Proximity)
PERSONAL REACTIONS:
Emotions, Bodily Sensations, Implicit/Explicit Memories
BEHAVIOR:
Words, Tantrum, Pouting, Slamming Doors, Crying, etc.
ATTACHMENT FIGURE:
Responds to & meets the true need at least 74% of the time
OUTCOME:
Becomes more regulated & Senses that true need is met; Relaxation
ACHIEVED:
Increased sense of Safety, Belonging, Esteem for both parties; Proximity Enjoyed
TRUST

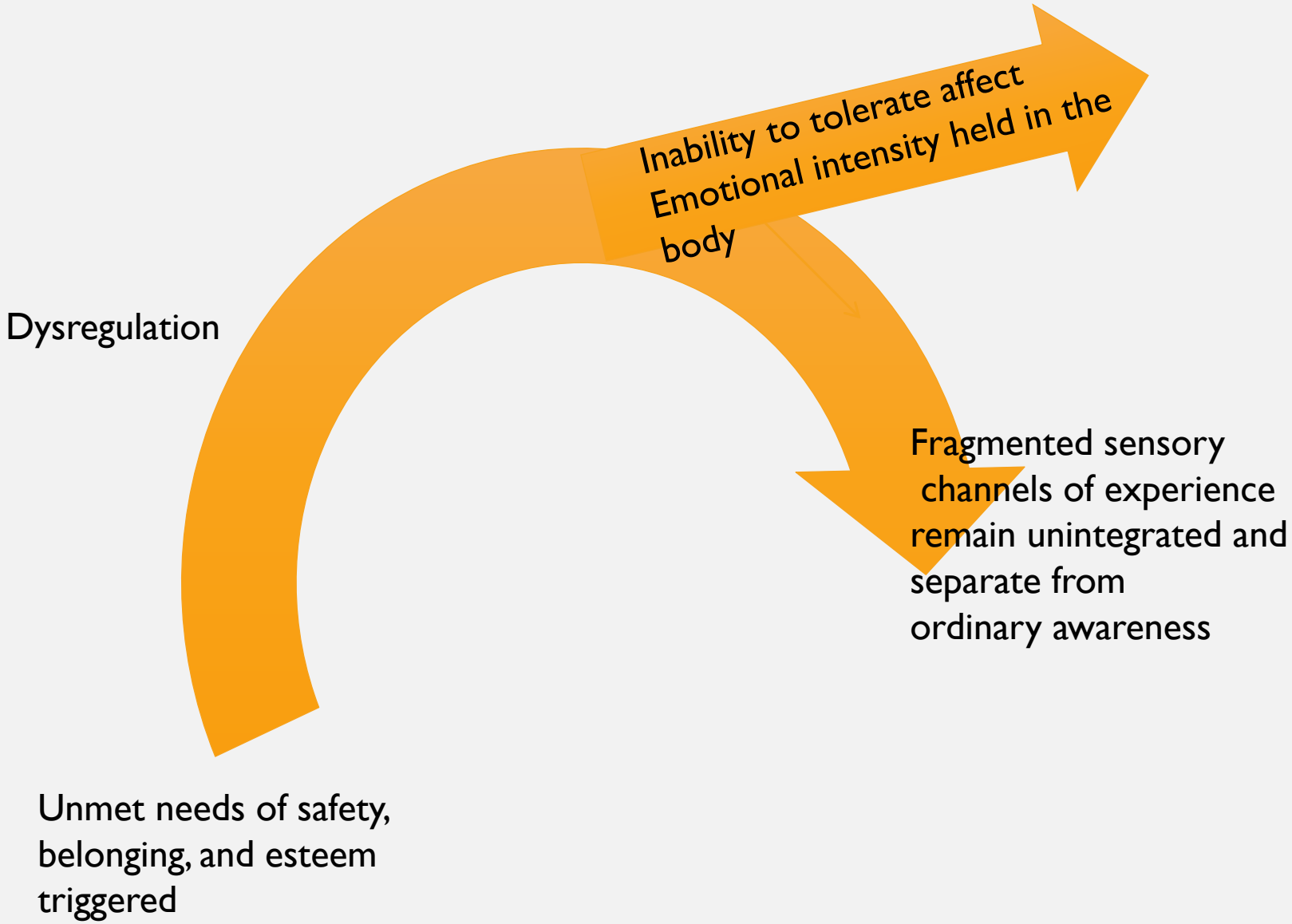
AROUSAL CURVE - NORMAL



AROUSAL CURVE - DYSREGULATION






Inability to tolerate affect
Emotional intensity held in the body
Dysregulation
Fragmented sensory channels of experience remain unintegrated and separate from ordinary awareness
Unmet needs of safety, belonging, and esteem triggered

POLYVAGAL THEORY

- Theory: Early experiences play an important role in changing the threshold or vulnerability.
- The newer vagal circuit (social engagement) can protect us first, if strengthened in childhood.
- If we lose regulation of this newer vagal circuit, we become defensive fight-flight machines
- When fight-flight is not adaptive we immobilize

Losing Sense of Self

EIGHT PHASES OF EMDR

EIGHT PHASES OF EMDR: CORE

1. Client History and Treatment Planning
2. Client Preparation

CORE

3. Assessment
4. Desensitization
5. Installation
6. Body Scan

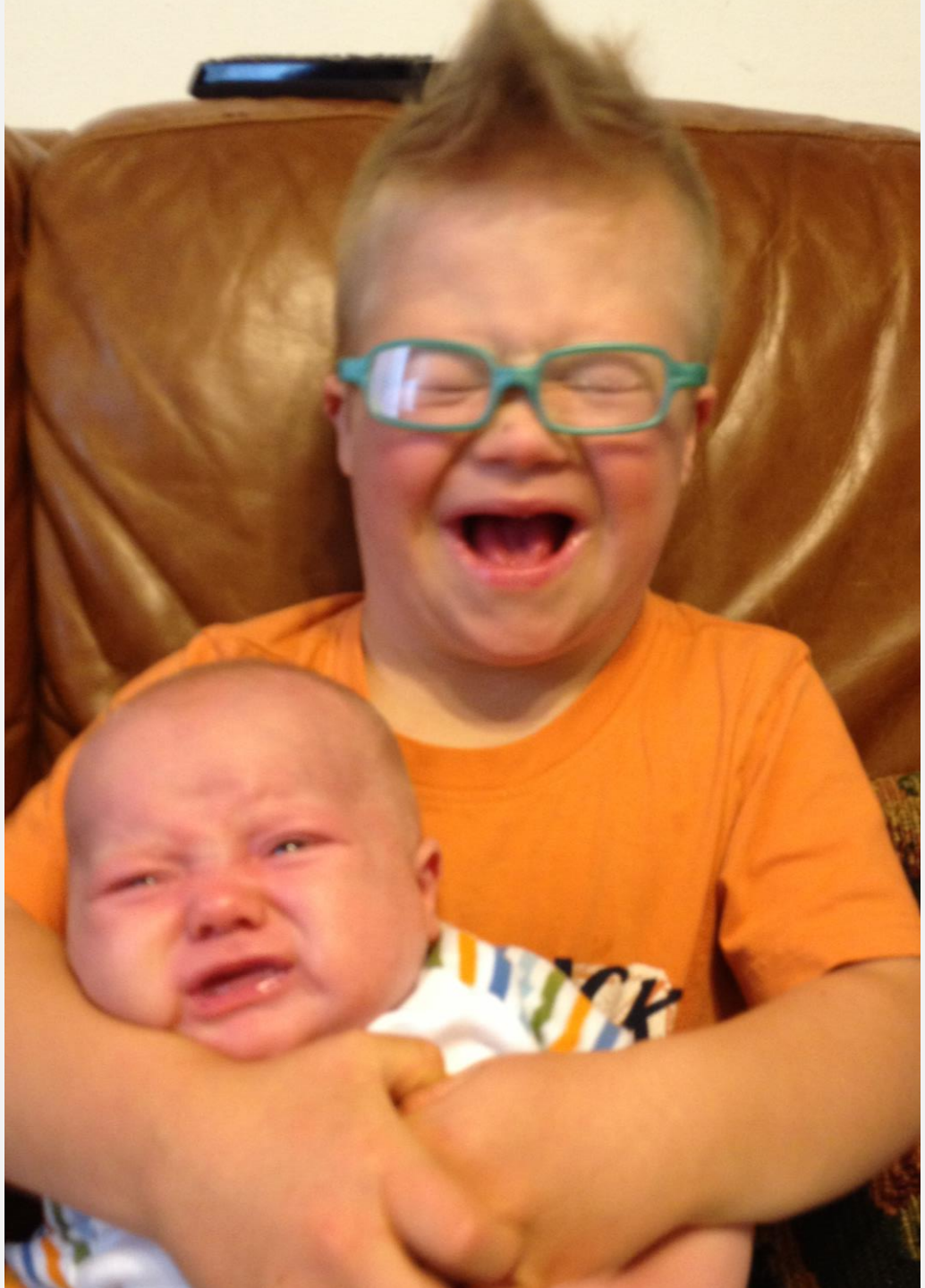
7. Closure
8. Reevaluation

PHASE I HISTORY TAKING

- Gather information about the client and provide client with information and informed consent
- To assess client selection and readiness
- To identify potential treatment targets (life experiences) from positive and negative events. Past, present, future

ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

- The Adaptive Information Processing Model: foundation for EMDR Case Conceptualization and Treatment
- Conduct an intake interview from an AIP perspective
- Assess client's readiness, ability to stabilize
- Develop a targeting sequence plan
  - Symptom clusters
  - Dominant irrational beliefs
  - Past/present/future



PHASE I HISTORY TAKING (STABILITY)

- Goal of EMDR Therapy is to achieve the most effective and efficient treatment effects while maintaining client safety within a stable system (Shapiro, 2001)
- Assess the clients current level of psychosocial functioning
- Assess the clients ability to control behaviors
- Assess the clients ability to manage emotional responses
- Assess the availability of internal/external resources

HISTORY-TAKING EVALUATE

- Client's integrative capacity
- Affect tolerance
- Current internal and external resources
- Attachment history
- Readiness for change – secondary gains
- Current psychosocial factors
- Level of complexity/resources to determine pace

DUAL AWARENESS
DUAL FOCUS OF ATTENTION

- Maintaining sense of present awareness
- One foot in the past and one foot in the present
- Client is able to be a non-evaluative observer
- Dual attention and bilateral stimulation (BLS) activates the Adaptive Information Processing (AIP) system. (Knipe, 2015)
- Maintaining safety in the present while accessing and stimulating negative information from the past

PHASE 2 PREPARATION

- To prepare clients for EMDR processing of distressing life experiences
- Establish a therapeutic relationship
- Education on EMDR and the Adaptive Information processing model
- Discuss EMDR mechanics and procedures

PHASE 2 PREPARATION

- Diagnostic
- Teach coping skills in session and for use outside session
- Facilitate a state change
- Affect management skills
- Life management skills
- Stabilization skills

PHASE 2 PREPARATION

- Can the client do a state change?
- Can the client maintain a dual awareness?
  - Remain present while talking about the past?
- How adaptive is their memory system?
  - Do they have resources/strengths?
  - Do they have the ability to tolerate positive affect?

PREPARATION PHASE

- Containers: Create the foundation for containment and affect management
- Safe Place/State: Identified before the trauma/losses are explored
- Making sure the client practices safe place or other resources to cope with their daily life

PHASE 3 ASSESSMENT

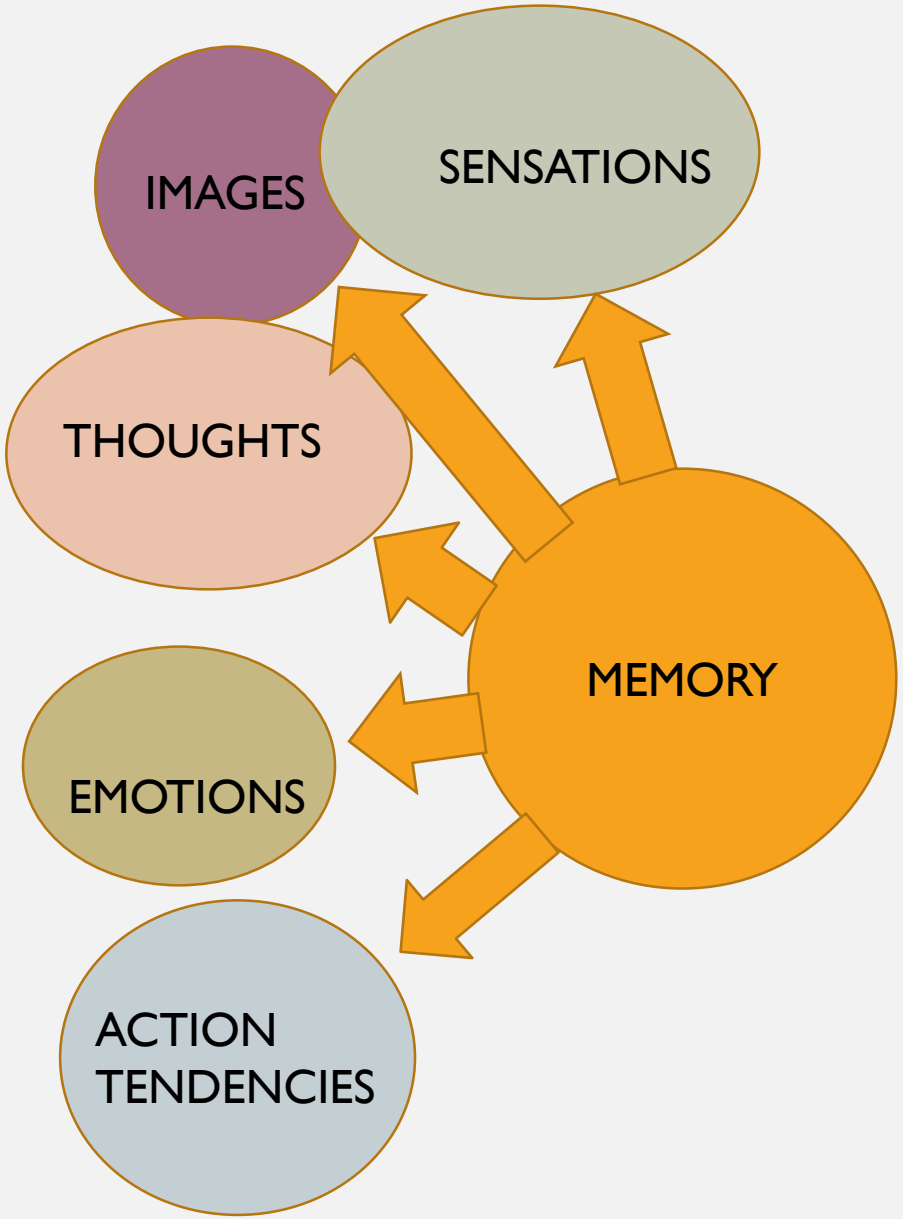
- Presenting Issue
- Picture or image that represents the worst parts
- Negative Cognition (NC)
- Positive Cognition (PC)
- Validity of Cognition (VOC)
- Emotions/feelings
- Subjective Units of Distress (SUDS)
- Location of body sensation

CORE

3. Assessment

4. Desensitization

5. Installation



PHASE 3 ASSESSMENT

PHASE 3 ASSESSMENT: DEVELOPING NEGATIVE COGNITION

Negative Cognitions	Positive Cognitions
Responsibility "I'm not lovable."	**Responsibility** "I did the best I could."
Safety/Vulnerability "I can't trust."	**Safety/Vulnerability** "I can take care of myself."
Control/Choices "I am powerless."	**Control/Choices** "I can succeed."

CORE

3. Assessment

4. Desensitization

5. Installation

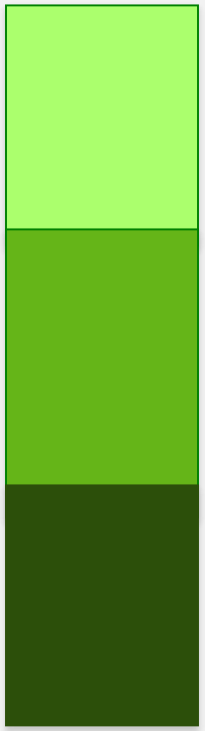
POLYVAGAL THEORY
STEPHEN PORGES

Positive dissociative responses to loss of self
- Anxiety
- Fight/Flight
- Panic attacks/Flash backs
- Intrusive symptoms
- Unable to integrate new information (no new learning)

Brain can integrate new information
- Healthy secure attachment responses
- Ability to regulate
- Sensing the emotions of others through movement, touch, body language
- New learning

Negative dissociative responses to loss of self
- Paralysis
- Amnesia
- Numbing
- Unable to integrate new information (no new learning)

DESENSITIZATION



Under-accessing
- Mechanics
- Memory (TICES)

Normal processing
- BLS sets: 15-20 seconds
- Pacing - non-verbals
- "Take a breath, let it go…What do you get now?" … "Go with that."

Over-accessing
- Mechanics
- Memory (TICES)

PHASE 4 DESENSITIZATION

- Potential Responses
  - Pictorial Processing
  - Cognitive Processing
  - Emotional Processing
  - Sensory Processing
- Associative Links
  - Feeder Memories
  - Blocking Beliefs

CORE

3. Assessment
4. **Desensitization**
5. Installation

PHASE 5 INSTALLATION

- Integration of positive cognition with targeted information
- Validity of Cognition (VOC) check
- Strengthen connections to the positive memory networks
- Increase generalization effects within the associated network

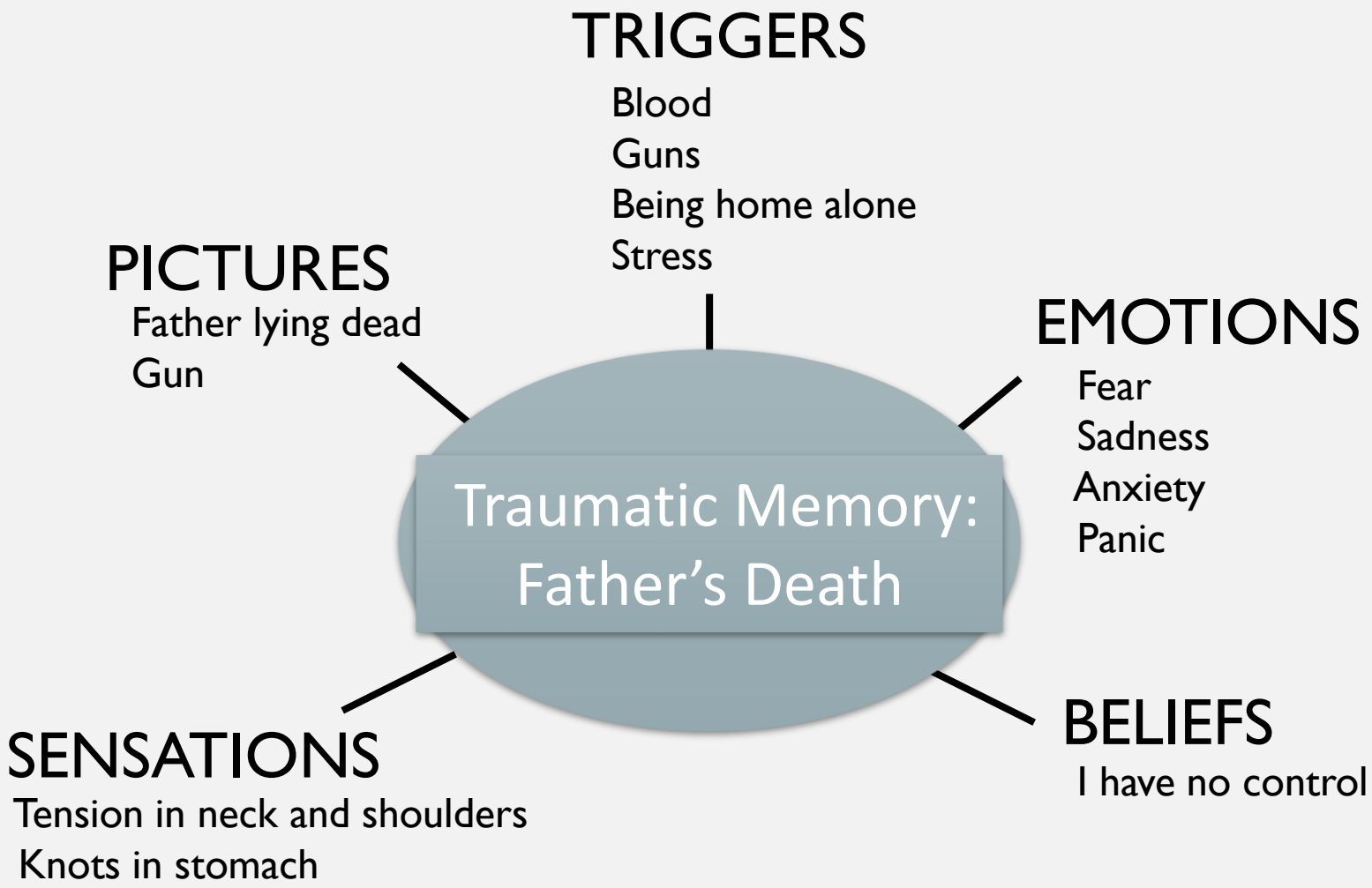
CORE
3. Assessment
4. Desensitization
5. Installation

PHASE 6 BODY SCAN

- Checking for residual trauma held in the body
- Ensure somatic responses are congruent with the neutralized memory and the positive cognition (PC)

OTHER FACTORS

SKILL BUILDING


TRIGGERS
Blood
Guns
Being home alone
Stress
PICTURES
Father lying dead
Gun
EMOTIONS
Fear
Sadness
Anxiety
Panic
Traumatic Memory:
Father's Death
SENSATIONS
Tension in neck and shoulders
Knots in stomach
BELIEFS
I have no control

CASE EXAMPLE

Negative Cognitions	Positive Cognitions
• I'm not normal	• I'm normal
• I'm unlovable	• I did the best I could
• I'm always vulnerable and in danger	• I'm a good person
• I have no control	• It's over
	• I'm safe now
	• I have choices
	• Things happen for a reason

REFERENCES

- Calhoun. L., Tedeschi. R., (2006) *Handbook of posttraumatic growth*. New York. NY: Routledge.
- Christman, S.D., Garvey, K.J., Propper, R.E., & Phaneuf, K.A.(2003) Bilateral eye movements enhance the retrieval of episodic memories. *Neuropsychology, 17(2), 222-229*.
- deJongh, A., Ernst, R., Marques, L., Hornsveld. H. (2013). The impact of eye movements and tones on disturbing memories involving PTSD and other mental disorders. *Journal of Behavior Therapy and Experimental Psychiatry, 44(4), 477-483*.
- Elofsson, U.O.E., von Scheele, B., Theorell, T., & as Sondergaard, H.P. (2008) Psysiological correlates of eye movement desensitization and reprocessing. *Journal of Anxiety Disorders,* 22, 622-634.
- Ecker.B., , Ticic.R., Huller. L., (2012) *Unlocking the emotional brain*. New York. NY: Routledge.

REFERENCES

- Hensley, B. (2016) *An EMDR therapy primer: From practicum to practice (*2nd ed.) New York, NY: Springer Publishing.
- Kahneman, D. (2011). *Thinking, fast and slow.* New York, NY: Farrar, Straus and Groux.
- Knipe, J.(2015) *EMDR toolbox:Theory of treatment of complex PTSD and dissociation.* New York, NY: Springer Publishing.
- Lee, C. (2008). Cultural process in EMDR – More than imaginal exposure. *Journal of EMDR Practice and Research. 2(4), 262-268.*
- Leeds, A. (2016) *A guide to the standard EMDR therapy protocols for clinicians, supervisors, and consultants.* (2nd ed.) New York, NY: Springer Publishing.

REFERENCES

- Proges, S.W. (2007) The polyvagal perspective. *Biological Psychology*. 74, 116-143.
- Porges, S.W. (2009). The polyvagal theory: New insights into adaptive reactions of the autonomic nervous system. *Cleveland Clinic Journal of Medicine,* 76 (Suppl 2), S86-S90.
- Propper, R., Pierce J.P., Geisler, M.W., Christman, S. D., & Bellorado, N. (2007). Effect of bilateral eye movements on frontal interhemispheric gamma EEG coherence. Implications for EMDR therapy. *Journal of Nervous and Mental Disease*. 195, 785-788.

REFERENCES

- Sack, M. Hofmann, A., Wizelman, L., & Lempa, W. (2008). Psychophysiological changes during EMDR and treatment outcome. *Journal of EMDR Practice and Research, 2(4), 239-246.*
- Shapiro, F. (2002). *Eye movement desensitization and reprocessing: Basic principles, protocols and procedures* (2nd ed.) New York, NY: Guilford Press.
- Shapiro, F. (2009-2014). *The EMDR approach to psychotherapy – EMDR institute basic training course weekend 2 of the two part basic training.* Watsonville, CA: EMDR Institute.