# An Innovative Framework for Assessment and Intervention for Infants and Preschool Children

ElmTree Clinic

NURTURING YOUNG MINDS

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# Objectives

- Understand how to utilize the 3 steps of the Neurorelational Framework (NRF) to organize a holistic assessment
- Understand how applying the 3 steps of the NRF guides interventions
- Appreciate how NRF principles enhance interdisciplinary practice

# The Neurorelational Framework:

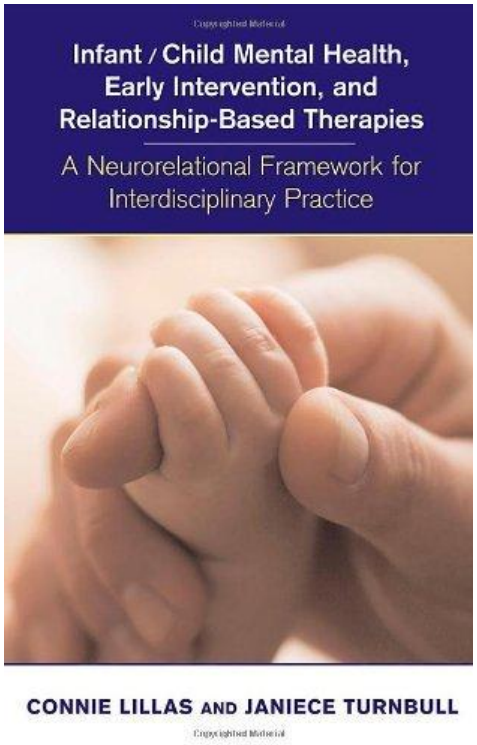
Infant/Child Mental Health, Early Intervention, and Relationship-Based Therapies

A Neurorelational Framework for Interdisciplinary Practice

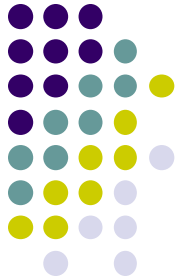
Connie Lillas and

Janiece Turnbull

W.W. Norton, New York, 2009

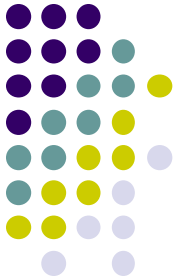


# Outline



- Description of the Neurorelational Framework
- 3 key concepts
- 3 key steps
- Triggers and Toolkits
- Assessment and Intervention Principles

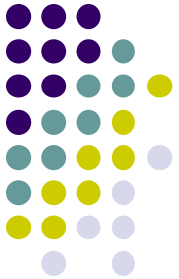
# What is the Neurorelational Framework?



## A paradigm shift

- A new way to hold complexity
- A new way to help with decision making and targeting the right timing for interventions
- A clinical translation of neuroscience principles
- We collect the same information and use the same evidence-based interventions BUT organize by the 3 steps of the NRF

# What is the Neurorelational Framework?



**Evidence-based practice** in early childhood:

"a decision-making process that integrates the best available research, evidence with family and professional wisdom and values" Buysee and Wesley, 2006

# What is the Neurorelational Framework?

- Encompasses theories & approaches of all disciplines
- Provides relevant core knowledge
- Provides “part-to-whole view” for clinicians

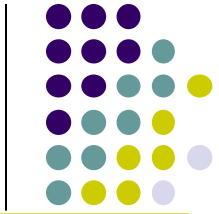
# What is the Neurorelational Framework?

- Interdisciplinary collaboration
- A shared language and
- A common understanding of neuroscience

… lead to …

***Integration*** of assessment and evidence based interventions across systems of care

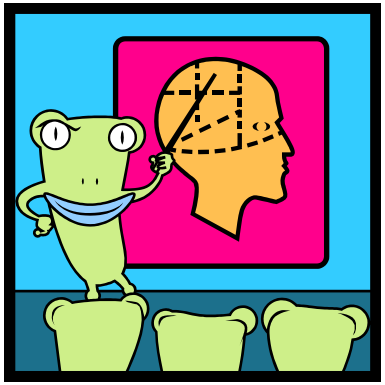
# Research Shifts & NRF

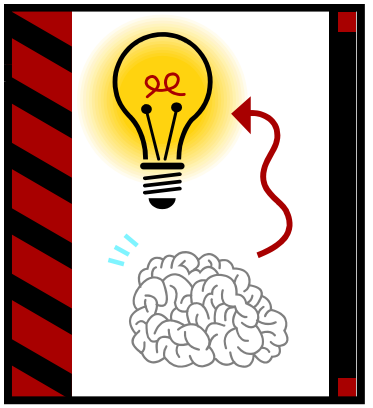


| Category | Historical Position | Future Directions |
|---|---|---|
| **Clinical Practice** | Simple problems, simple solutions | Complex (dynamic systems - for "messy" problems) |
| **Population Samples** | Laboratory | Real-world |
| **Category** | Categorical Diagnoses | Underlying Dimensions |
| **Research Methodologies** | Linear | Non-linear, systems science |
| **Research Perspectives** | Isolated laboratories, "cottage industries" | Translational, Interdisciplinary, & Community-Based Participatory Research |

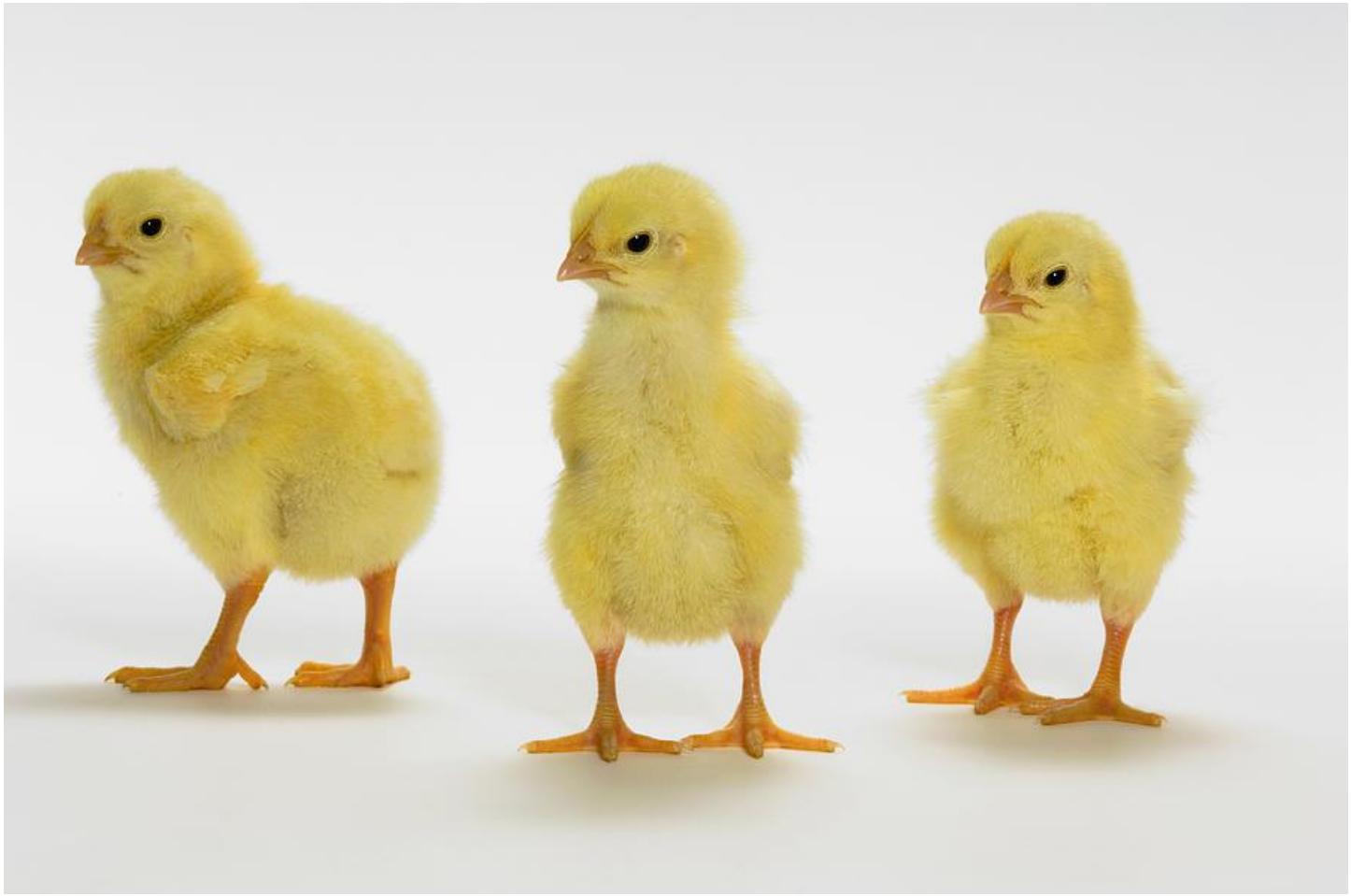
# What is the Neurorelational Framework?

## The brain leads the way ...





# 3 Key  Concepts, 3 Key Steps



# Key Concept 1:

## The quality of our relational experiences set up adaptive or toxic stress patterns…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# Key Concept 2a:

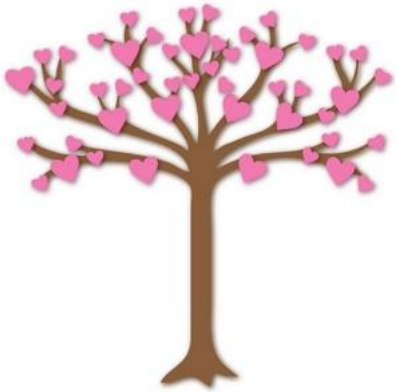
## Early brain networks develop through serve & return experiences

paa433000014 fotosearch.com

# Key Concept 2b:

**The quality of our serve & return experiences set up positive or negative lifelong expectations**

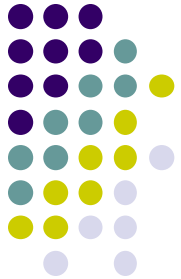

jg0124114 fotosearch.com



# Key concept 3:

## Early brain architecture is built through lived experiences


# 3 Key Concepts → 3 Key Steps

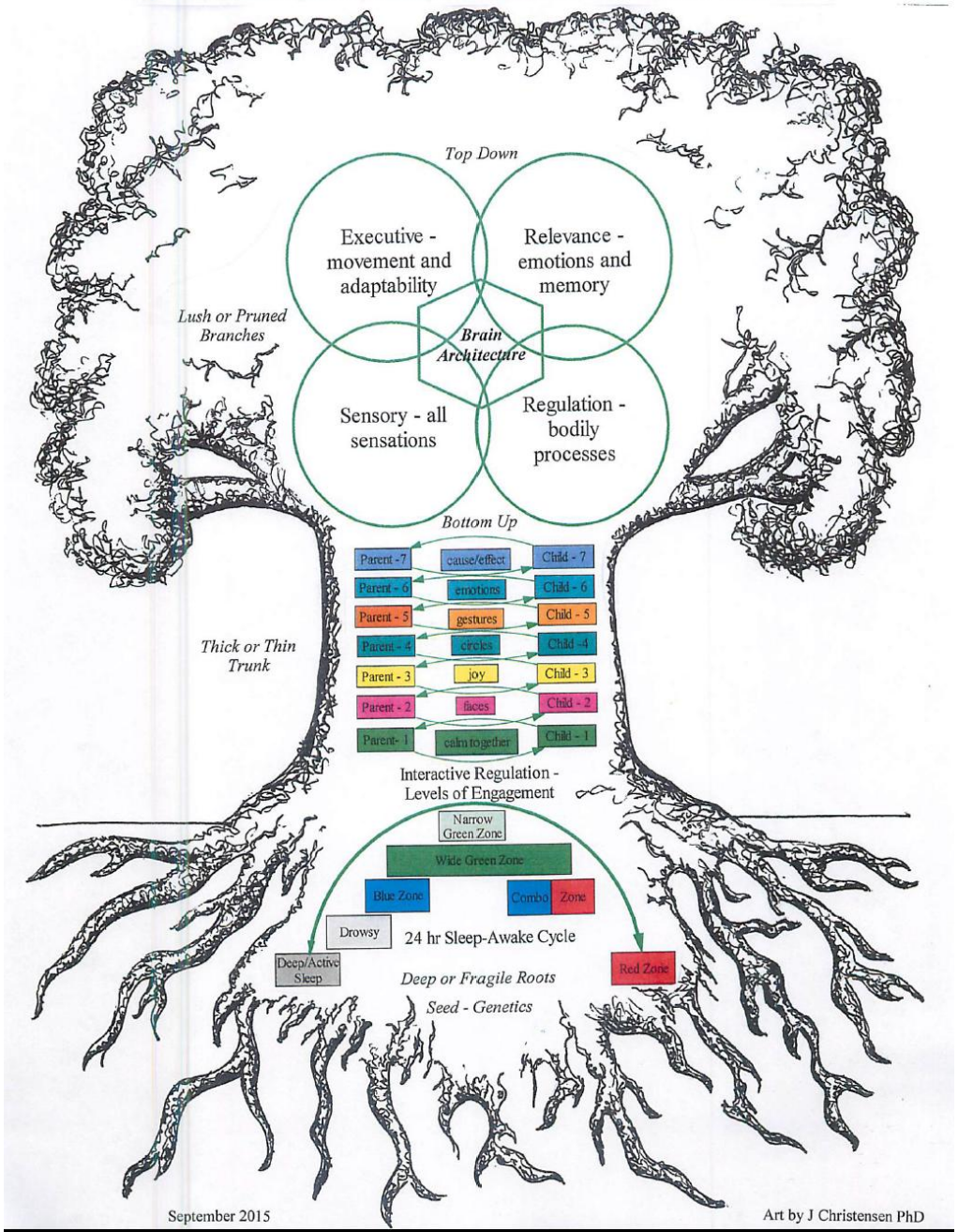


- Adaptive stress is healthy, toxic stress corrupts brain networks
- Positive or negative engagement influences lifelong expectations
- Brain networks develop with experience

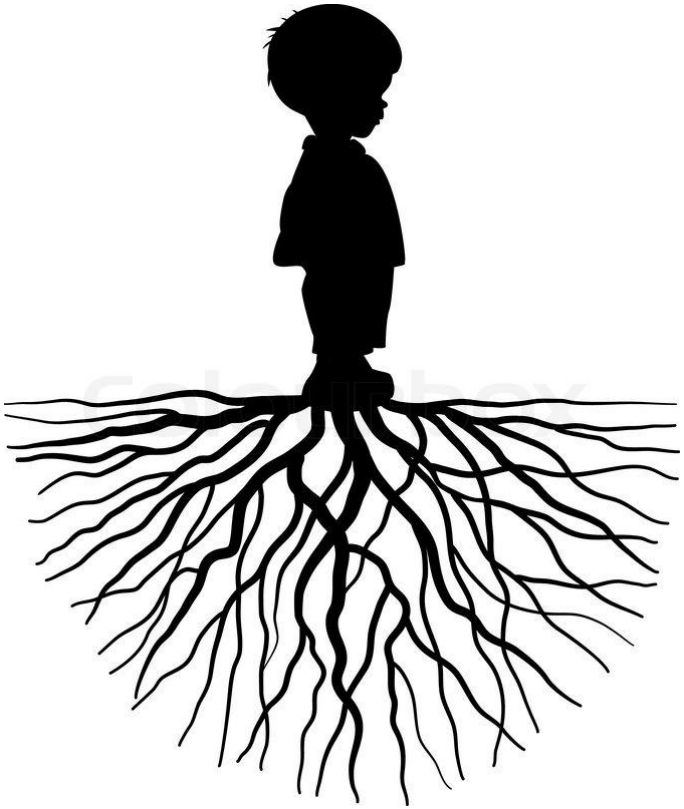
- #1 Managing Stress
- #2 Quality of Relationships
- #3 Individual Differences

# The Neurorelational Framework's Three Clinical Steps

C Lillas PhD (adapted from Lillas & Turnbull, 2009) with CA Hapchyn MD
Supported by Nathaniel Osgood PhD, University of Saskatchewan and the Interdisciplinary Training Institute



# Step 1: Adaptive vs Toxic Stress



# Step 1: The Roots of the Tree

## How deep or fragile are the roots?

EARLY BRAIN & BIOLOGICAL DEVELOPMENT A SCIENCE IN SOCIETY SYMPOSIUM

# Three Levels of Stress

## Positive

Brief increases in heart rate,
mild elevations in stress hormone levels.

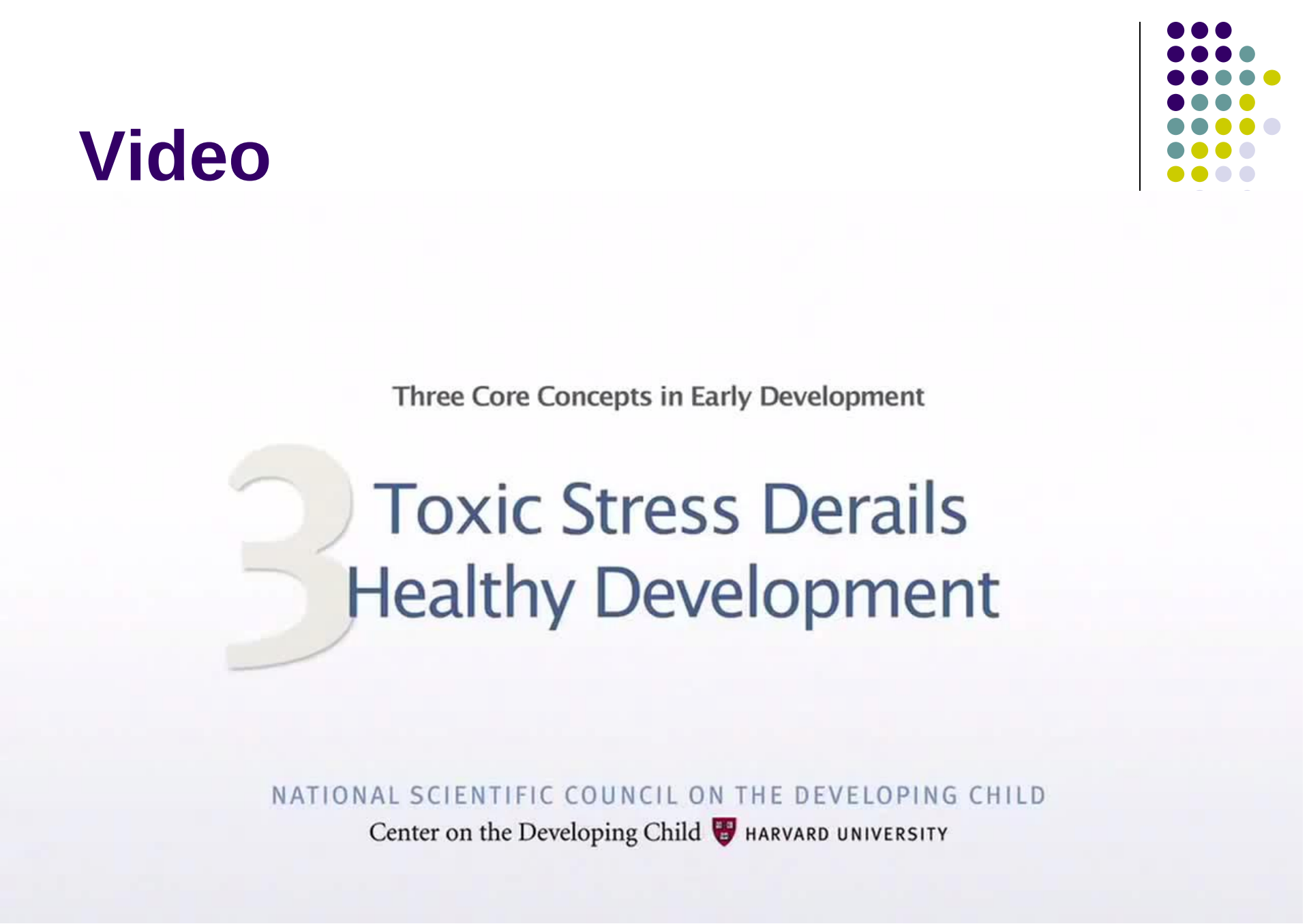
## Tolerable

Serious, temporary stress responses,
buffered by supportive relationships.

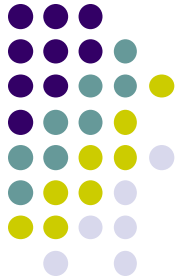
## Toxic

Prolonged activation of stress response systems
in the absence of protective relationships.

# Video


Three Core Concepts in Early Development
3
Toxic Stress Derails
Healthy Development
NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child
HARVARD UNIVERSITY

# Adverse Childhood Experiences Scale (ACE)



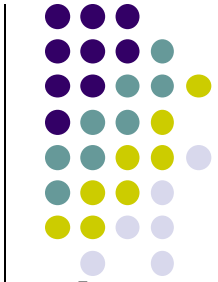
## ACE List

1. Recurrent physical abuse
2. Recurrent emotional abuse
3. Contact sexual abuse
4. An alcohol and/or drug abuser in the household
5. An incarcerated household member
6. Someone who is chronically depressed, mentally ill, institutionalized, or suicidal
7. Violence between adults in the home
8. Parental separation or divorce
9. Emotional neglect
10. Physical neglect

## Resources

- http://acestudy.org/home
- http://www.cavalcadeproductions.com/ace-study.html
- http://wichildrenstrustfund.org/files/WisconsinACEs.pdf

# ACE Score Higher Than 4



**Score 4 or more**

- Twice as likely to smoke
- Twice as likely to have heart disease
- Twice as likely to be diagnosed with cancer
- Four times as likely to have emphysema or chronic bronchitis
- Six times as likely to have sex before age 15
- Seven times as likely to be alcoholics

**Score 4 or more compared to 0**

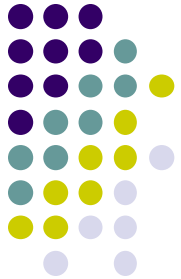
Score 4 or more compared to 0

- Twelve times as likely to have attempted suicide

Men with a score of 6 or more compared to 0

- Forty-six times as likely to have injected drugs

# Stress Patterns & Associated Health Issues:



Disease does not begin at the onset of symptoms.

In fact, maladaptive stress related conditions are implicated in all of the following:

## Toxic Stress Patterns #1 to 3

- Increase in heart attack & hypertension
- Melancholic depression
- Obsessive compulsive disorder
- Panic disorder
- Alcoholism
- Lowered immune system
- Decrease in memory functions
- Diabetes
- Malnutrition
- Hyperthyroidism
- Functional gastrointestinal disease

## Toxic Stress Pattern #4

- Allergies
- Asthma
- Autoimmune diseases
- Chronic fatigue syndrome
- Rashes
- Rheumatoid arthritis
- Post Traumatic Stress Disorder

McEwen 2002

# The Ripple Effect: Trauma-Informed Shift

- Shift from , “What’s wrong with you?” (bad behavior)
- To a curious and kind attitude, “What happened to you?” J.Foderaro 1991, S. Bloom 1994

# Step 1:
## How do we identify stress & stress recovery ?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*A. Recognize what stress recovery looks like and who we are at our Best!*

B. Recognize 3 primary stress responses and who we are at our Worst!

C. Recognize 4 toxic stress patterns

# Step 1A: How do we identify stress recovery ?

Recognize what

stress recovery looks like:

- Deep sleep
- Green zone

# *Deep sleep is restorative…*

# Determining the Quality of Sleep

- Can you get to sleep?
- Can you stay asleep?
- Do you get enough total sleep?
- Do you wake up feeling refreshed?
- Do you wake up feeling tired and cranky?
- Do you snore?

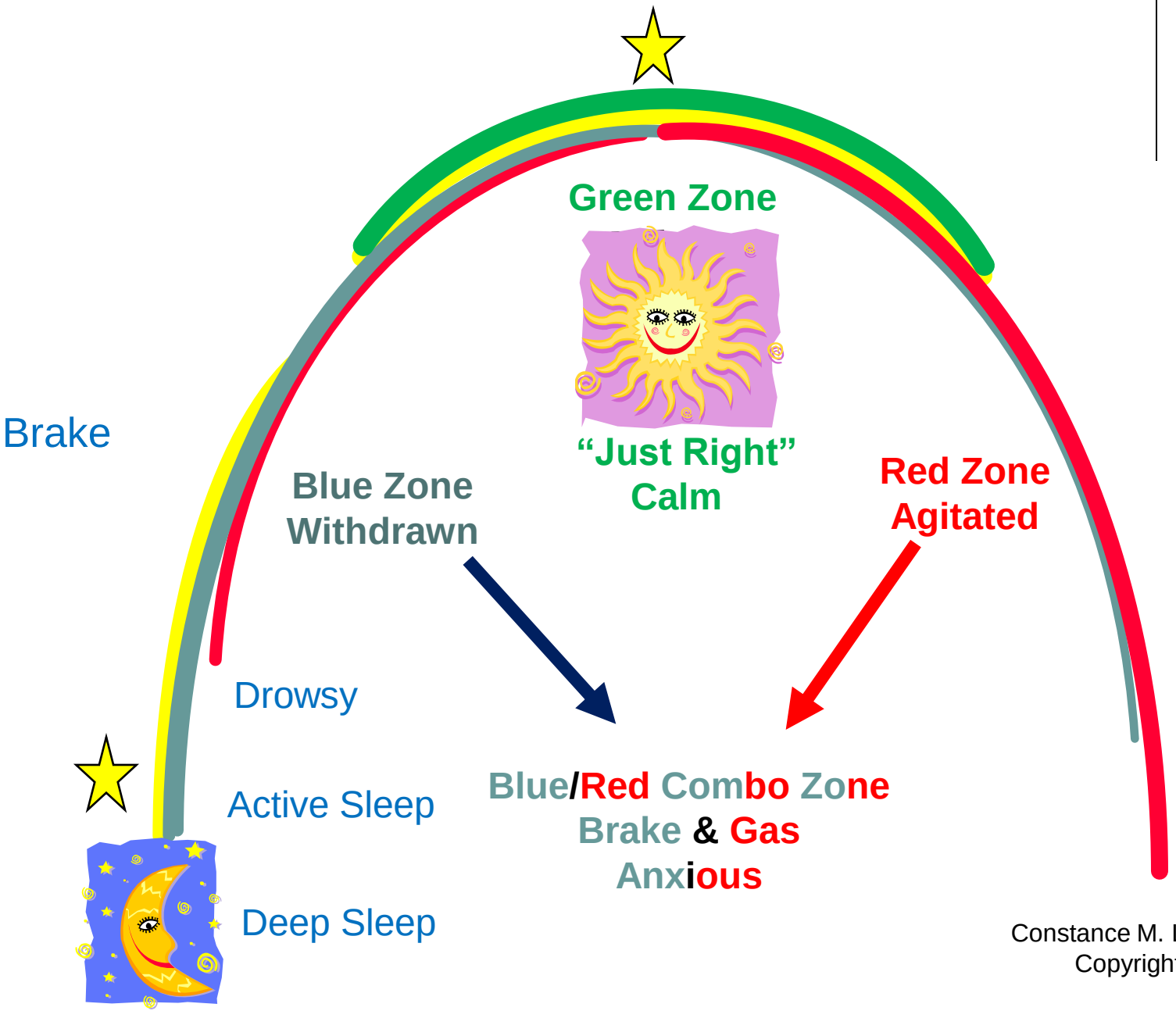
# Green Zone is ‘just right’… for learning and relationships

# Green Zone

# Green Zone

# Our Nervous System Under Safety and Threat

## States During Sleep-Wake Cycles



# Step 1B: How do we identify Stress Responses?

**Awake States with Stress Responses** — **Step #1**

## GREEN ZONE — Just Right/Alert

**EYES**
- ☐ Bright, shiny eyes
- ☐ Looks directly at people, objects
- ☐ Looks away for breaks, then returns to eye contact
- ☐ Seems alert, takes in information

**FACE**
- ☐ Smiles, shows joy
- ☐ Neutral
- ☐ Can express all emotions

**VOICE**
- ☐ Laughing
- ☐ Tone changes

**BODY**
- ☐ Relaxed with good muscle tone
- ☐ Stable, balanced and coordinated movements
- ☐ Moves arms and legs toward centre of the body
- ☐ Molds body into a caring adult when held
- ☐ Moves faster or slower depending on environment

**RHYTHM/RATE OF MOVEMENT**
- ☐ Changes smoothly to respond to the environment
- ☐ Movements not too fast or too slow

## RED ZONE — Too Fast/Gas Pedal

**EYES**
- ☐ Open, squinted or closed eyes
- ☐ May have direct, intense eye contact
- ☐ May avoid eye contact
- ☐ Eyes roll upward
- ☐ Eyes look quickly around the room

**FACE**
- ☐ Wide, open mouth
- ☐ Anger, disgust
- ☐ Frown
- ☐ Fake/forced smile
- ☐ Clenched jaw or teeth

**VOICE**
- ☐ High-pitched crying, yelling or screaming
- ☐ Loud
- ☐ Hostile or grumpy
- ☐ Sarcastic
- ☐ Out of control laughing

**BODY**
- ☐ Fingers spread out
- ☐ Arched back; tense body position
- ☐ Constant motion
- ☐ Demands space by pushing, shoving, and getting into others' space
- ☐ Biting, hitting, kicking, jumping, throwing
- ☐ Bumps into things, falls
- ☐ Threatening gestures (shakes finger or fist)

**RHYTHM/RATE OF MOVEMENT**
- ☐ Fast movements
- ☐ Impulsive movements

## BLUE ZONE — Too Slow/Brake

**EYES**
- ☐ Glazed-glassy eyes (looks through rather than at)
- ☐ Looks away for a long time, looks down
- ☐ Seems drowsy/tired
- ☐ Does not look around the room for interesting items
- ☐ Looks at things more than people

**FACE**
- ☐ Flat/blank
- ☐ Mouth turned down, sad
- ☐ No smiles or hints of smiles
- ☐ Few emotions shown

**VOICE**
- ☐ Flat
- ☐ Makes few to no sounds
- ☐ Sounds cold, soft, sad, too quiet

**BODY**
- ☐ Slumped/slouching
- ☐ Low muscle tone
- ☐ Little or no exploring play or curiosity
- ☐ Wanders
- ☐ Frozen or slow-moving

**RHYTHM/RATE OF MOVEMENT**
- ☐ Slow movements
- ☐ Slow to start moving

## COMBO ZONE — Fast & Jerky/Gas & Brake

**EYES**
- ☐ Wide open eyes
- ☐ Looks around as if worried or scared
- ☐ Stares at things
- ☐ Rolling of the eyes

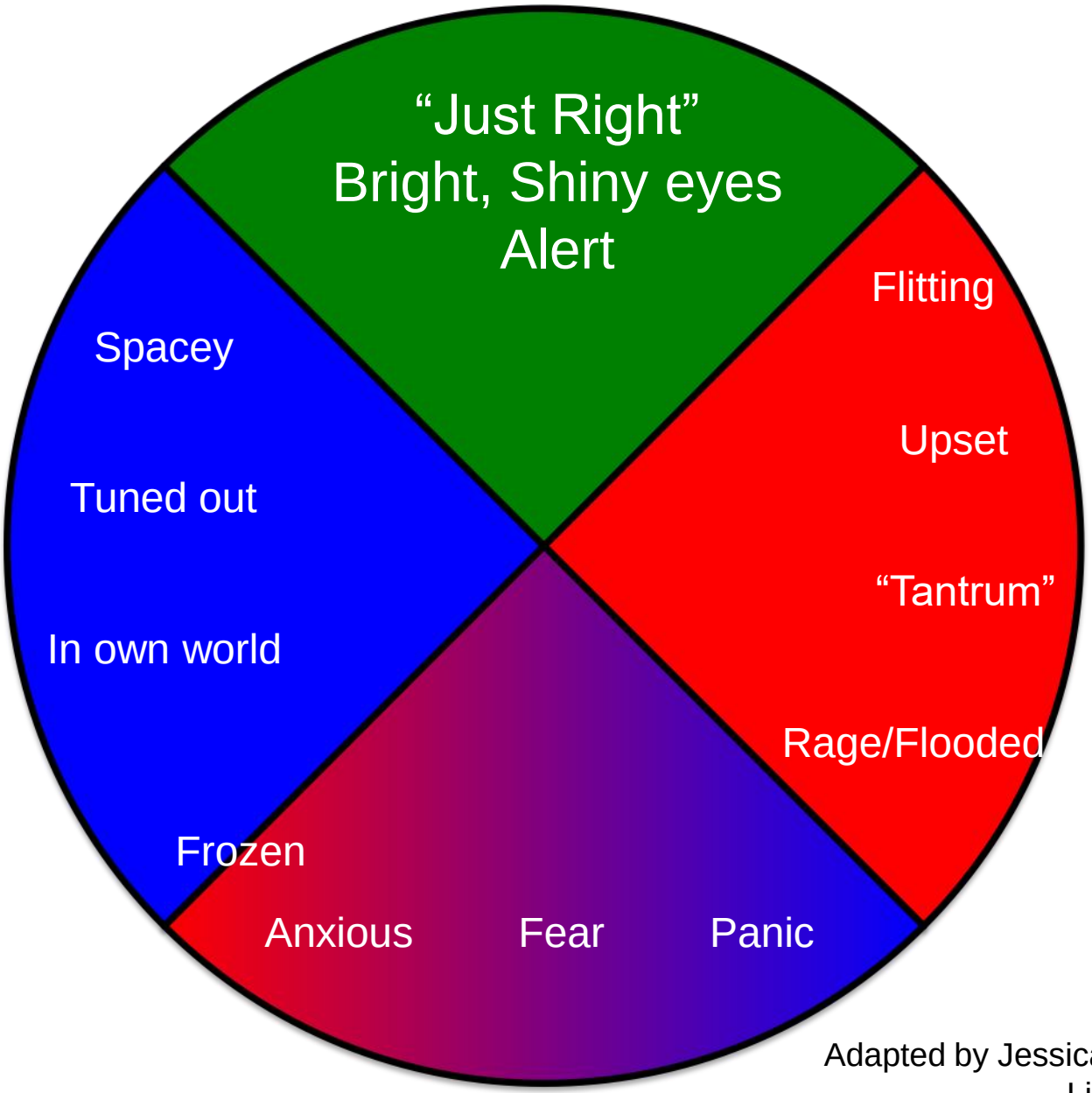
**FACE**
- ☐ Raised eyebrows
- ☐ Furrowed brow
- ☐ Trembling lips or mouth
- ☐ Seems in pain
- ☐ Mouth wide open
- ☐ Startled expression

**VOICE**
- ☐ High-pitched, nasal, sing-song voice
- ☐ Moans or groans in pain
- ☐ Whimpers
- ☐ Wobbly/quivering voice or fast changes

**BODY**
- ☐ Tense or rigid posture
- ☐ Cowers or hides
- ☐ Fast, repetitive movements (wrings hands, shakes foot)
- ☐ Trembling hands
- ☐ Clings, grabs
- ☐ Flails around

**RHYTHM/RATE OF MOVEMENT**
- ☐ Fast movements
- ☐ Jerky movements

From: *Infant/Child Mental Health, Early Intervention, and Relationship-Based Therapies: A Neurorelational Framework for Interdisciplinary Practice*. by Lillas & Turnbull. © 2009. New York, New York: W. W. Norton  Revised 3-9-16




Adapted by Jessica Richards based on Lillas & Turnbull, 2009

# Reading Non-Verbal Cues:
## Red Zone 

**A Baby's Flooded State:**

# Reading Non-Verbal Cues:
# Red Zone 

**Irritable, Angry Responses and/or Patterns:**


Red Zone

# Red Zone

# Red Zone

# video

# Reading Non-Verbal Cues:
## Blue Zone


### A Baby's Shut-Down State

# Reading Non-Verbal Cues:
## Blue Zone


**Shut-Down Responses and/or Patterns:**

Blue Zone

# video

# Reading Non-Verbal Cues:
# Combo Zone

## A Baby's Vigilant State:

# Combo Zone

# Reading Non-Verbal Cues: Combo Zone

**Vigilant Patterns:**

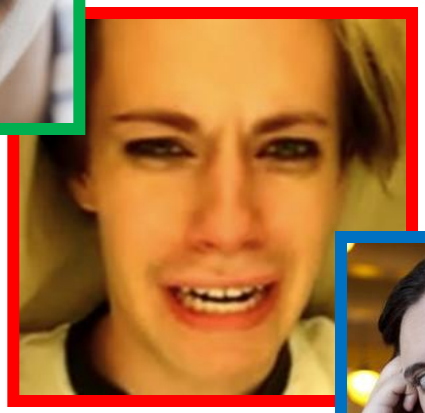
# Video

# Arousal Zones Across the Lifecycle

& Deep Sleep Cycling

- **Green**
  - Calm, alert

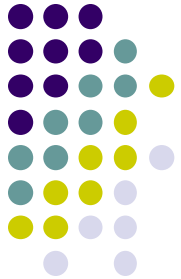
- **Red**
  - Hyperarousal
  - Flooded



- **Blue**
  - Hypoarousal
  - Dissociate

- **Combo** (red/blue)
  - Hypervigilant
  - May look calm outside, but anxious inside

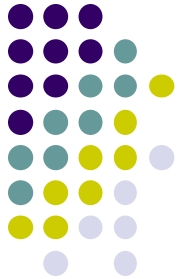
# *Step 1C:*
# How do we identify toxic stress?



- Allostatic load = the wear and tear on the body
  - Pattern where the rubber band is either too tight or too loose
  - Loss of coordination with

    too much rigidity or too much chaos

# *Step #1C: How do we identify toxic stress patterns?*

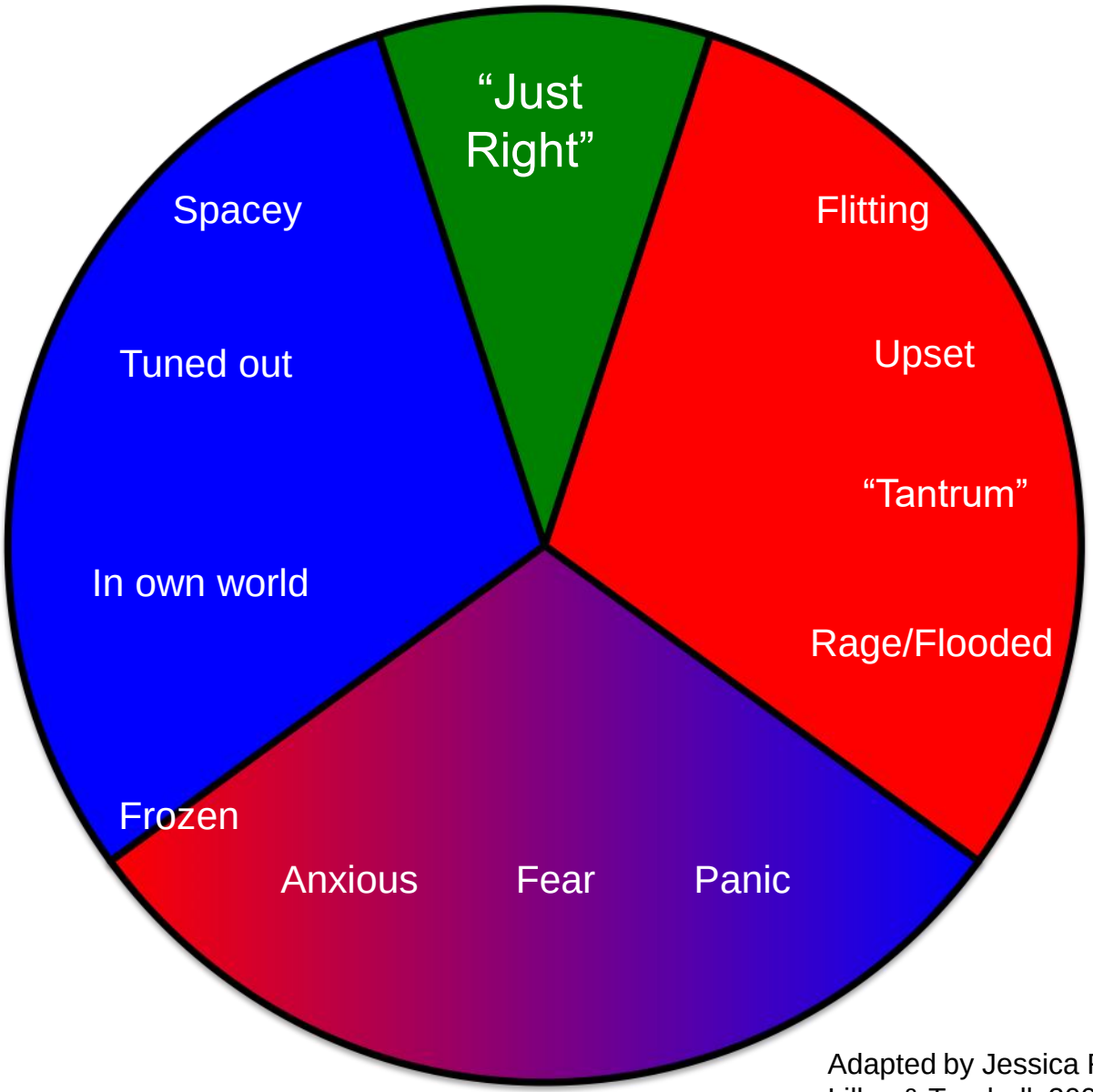


Recognize stress responses that are

*too frequent, too intense/quick or too long*

**4 Toxic Stress Patterns**

1. Overreactivity: Stress responses that occur too frequently and too quickly
2. Repeated reactivity: Can't adapt to "normal" challenges and transitions
3. Extended reactivity: prolonged stress responses that take too long to recover (more than 10 to 20 mins)
4. Dampened recovery: can't recover from stress response back to baseline health (healthy sleep cycle, healthy awake state)




Adapted by Jessica Richards based on Lillas & Turnbull, 2009

# How Deep are the Roots of the Tree? Deep, Fragile, or Uprooted…


# Green Zone Grows!

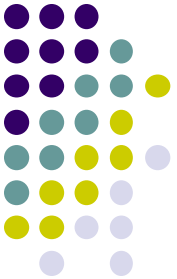
# Step Two: Levels of Engagement

2

"serve & return"

# How thin or thick is the relational trunk?


# Step 2: How do we identify high-quality relationships and positive procedural memories?



A. Recognize what high-quality "bottom-up" relationships looks like

B. Recognize what high-quality "top-down" relationships looks like

Link high-quality relationships with positive procedural memories

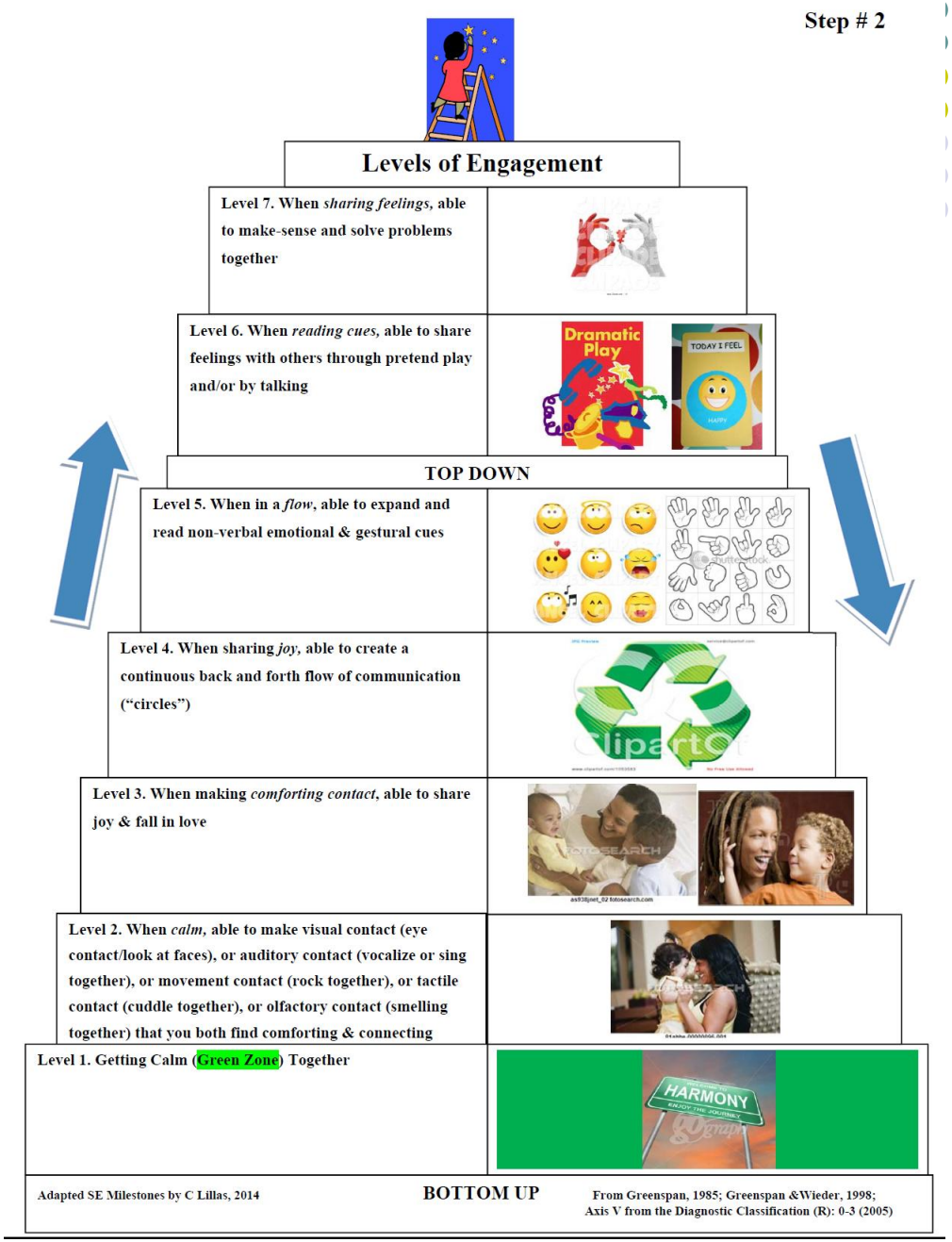
# “Couple” = any two people

Parent & child


Parent & parent

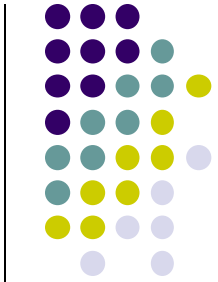
# Step #2

- Assess the levels of engagement (dyadic engagement) through socio-emotional milestones



# Step 2A:
# Recognize "Bottom-up" Levels

**Greenspan, 1985, 1992; Greenspan & Lourie, 1981; ZERO TO THREE, 1994, 2005**



## Bottom-Up (non-verbal capacities)

***Level 1*** Getting calm (green) together

***Level 2*** When *calm* able to make visual, auditory, tactile, movement or olfactory contact that both partners find comforting and connecting

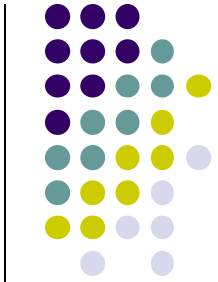
***Level 3*** When making *comforting contact,* able to share joy & fall in love

***Level 4*** When sharing *joy,* able to create a continuous back-and-forth flow of communication ("circles")

***Level 5*** When in a *flow*, able to expand and read non-verbal emotional and gestural cues

SE Milestone Language Adapted by Connie Lillas

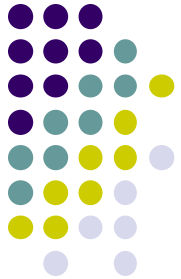
# “Bottom-Up” Processes



Bottom-up = Any behavior that is…

- Automatic & Habitual
- Things we do without thinking
- Often does not involve the use of words
- Begins at birth
- Dominates the early years
- Not easy to change; can last a lifetime

# “Bottom Up” Processes



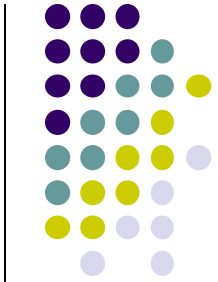
“We learn by example and by direct experience because there are real limits to the adequacy of verbal instruction.”

Malcolm Gladwell

“Habit is Stronger Than Reason.”

George Santayana

# Step 2B:
# Recognize "Top-down" Levels

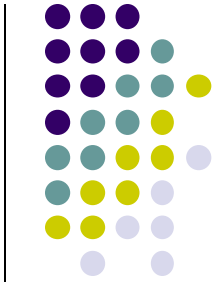


**Top-Down (verbal capacities)**

***Level 6*** When *reading cues*, able to share feelings with others in pretend play and by talking

***Level 7*** When *sharing feelings,* able to make-sense and to solve problems together

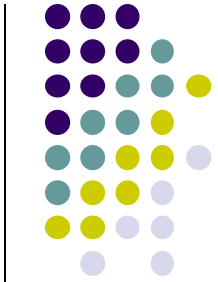
# “Top-Down” Processes



Top-down = Any behavior that is…

- Conscious & Effortful
- Things we do with thinking
- Often does involve the use of words

# “Top Down” Processes



“The mind is everything, what we think, we become…”

Gautama Buddha

“There are two primary choices in life: to accept conditions as they exist, or accept the responsibility for changing them.”

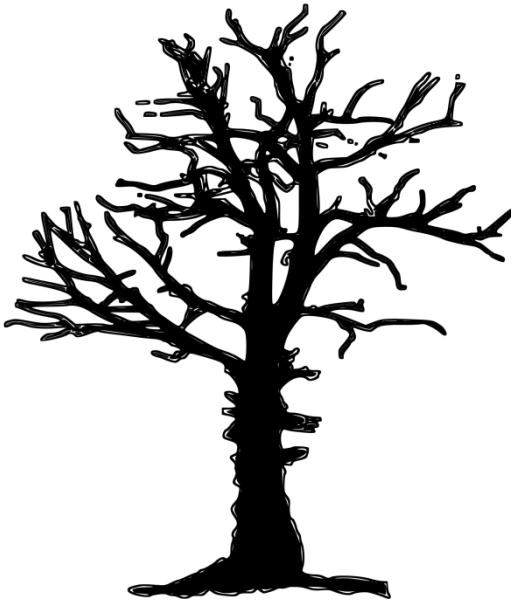
Dennis Waitley

# Serve and Return

# Step Two: Engagement with Others

Positive procedural memories?

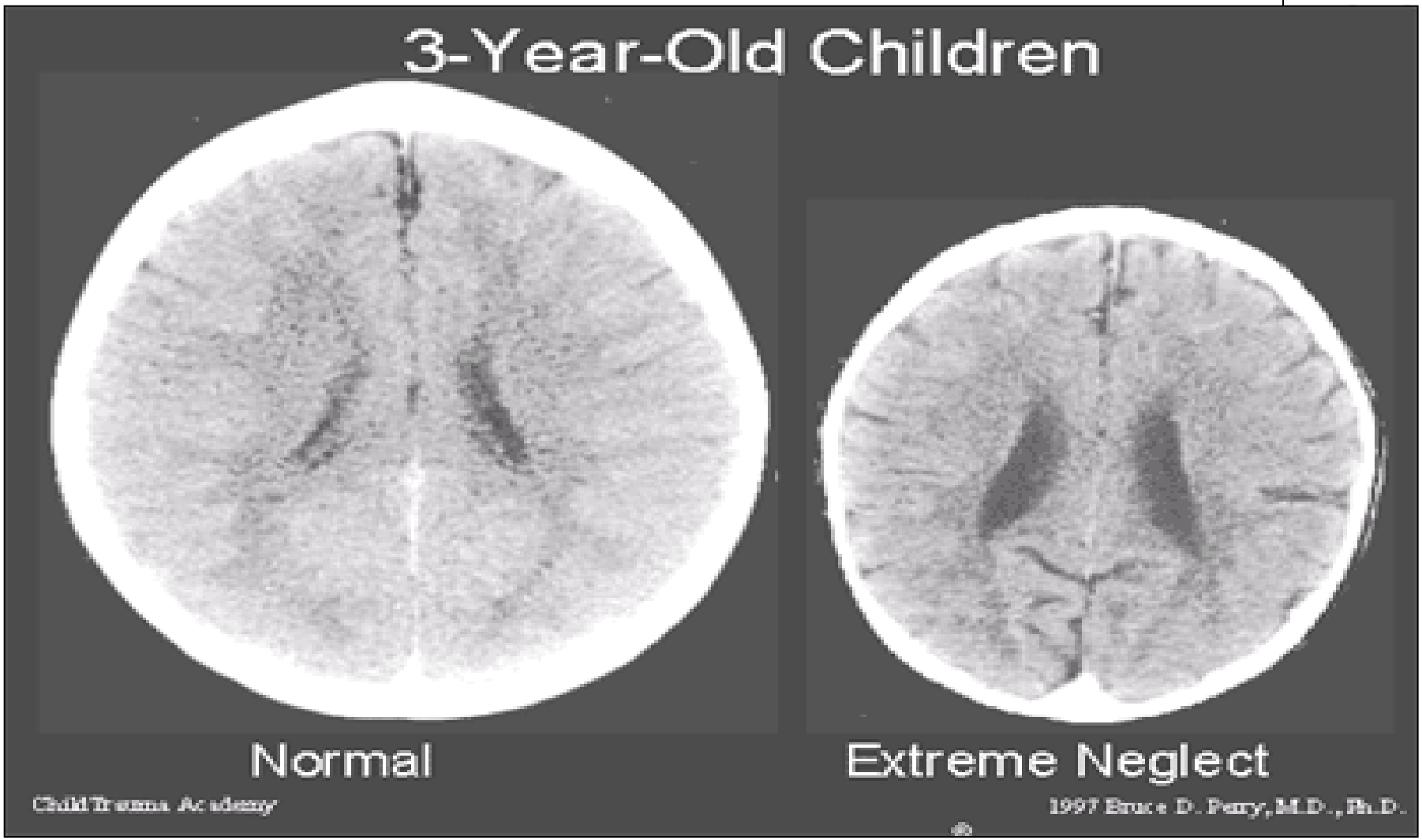
Negative procedural memories?



# Video: Green Zone

# The Importance of The First 3 Years

## Experiences Lay Down Reactions to Stress




Child Trauma Academy, Bruce Perry , 1997

**PARENT-CHILD RELATIONSHIP – 7 LEVELS OF ENGAGEMENT**

**Current Relationship with _____**

**Child:** _____ **Caregiver:** _____ **Support Person:** _____ **Date:** _____ **Previous Date Rated:** _____

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Place an X in the box that matches the milestone and achievement levels | Relationship reached this level, without support, including under stress, with a full range of feelings (positive and negative) | Relationship reached this level, without support, yet quickly loses this level under stress and/or present with a constricted range of feelings | Relationship has reached this level with support from yourself as parent, but not at age appropriate level | Relationship inconsistently reaches this level; needs sensorimotor support, structure, and support person present to function at this capacity | Barely able to get to this level, even with support person's help | Relationship has not reached this level, with or without support |
| Functional Capacities | | | | | | |
| **BOTTOM-UP** | | | | | | |
| **Level 1. Getting Calm (Green Zone) Together** (by 3 months) | | | | | | |
| **These functions are built upon the capacity to be calm together** | | | | | | |
| **Level 2. When *calm*, able to make eye contact & look at faces** (by 3 months) | | | | | | |
| **Level 3. When making *eye contact*, able to share joy & fall in love** (by 5 months) | | | | | | |
| **Level 4. When sharing *joy*, able to create a continuous back and forth flow of communication ("circles")** (by 9 months) | | | | | | |
| **Level 5. When in a *flow*, able to expand and read non-verbal emotional & gestural cues** (by 13 to 18 months) | | | | | | |
| **TOP-DOWN** | | | | | | |
| **Level 6. When *reading cues*, able to share feelings with others through pretend play and/or by talking** (by 24 to 36 months) | | | | | | |
| **Level 7. When *sharing feelings*, able to make-sense and solve problems together** (by 36 to 48 months) | | | | | | |

DIR® Institute adapted from the DMIC, ICDL Press

**Original functional levels from ICDL's FEDL; adapted language & organization by Connie Lillas**

# Joy Lights up the Tree!

# Step 3: Mapping Individual Differences in Brain Architecture



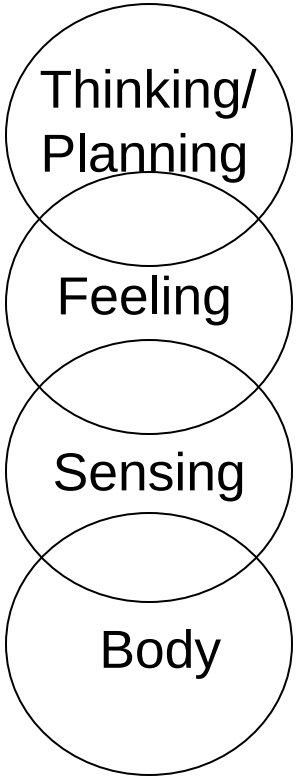

http://developingchild.harvard.edu/index.php/resources/multimedia/videos/three_core_concepts

# Brain Architecture

# Step #3:
# Assess for Sources of Vulnerability and Resilience Across Four Brain Systems

Guiding Principles

- There is no one-size fits all
- Assess on a “Macro” level the links with service delivery and diagnosis
- Assess on a “Micro” level functional needs that help guide the what is needed
- Distinguish between developmental age and chronological age




**Bottom-Up Progression**

# Functional behaviors representing brain systems



- Regulation
  - *when the body is calm <u>inside</u>*

  States of Arousal, sleep-awake cycle
- Sensory
  - take-in info from the *<u>outside</u>* world

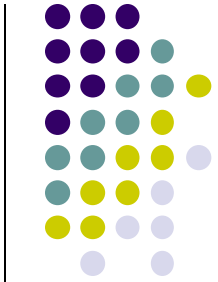
  Reactions to all sources of sensory information (including vestibular, proprioception, pain, temperature)
- Relevance
  - these sensations get organized into an *<u>inside</u>* world

  Emotions, memories, & meanings
- Executive
  - read the context, adapt to the *<u>outside</u>* world

  Ability to *initiate* and *shift* as well as *inhibit* and *sustain* motor (includes attention) activity and behavior according to the context

# Regulation:

## How does the body feel inside?

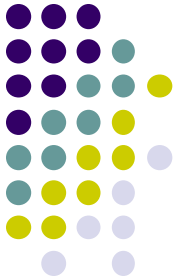


The brain system that manages the inside world of the body tells us if we are:

- thirsty or not thirsty
- hungry or full
- hot or cold
- in pain or comfy
- sick or well

# Regulation:

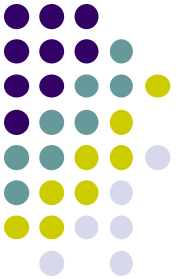
## How does the body feel inside?



- bladder/bowel is full or empty
- bowel is moving and passing gas
- heart beat is fast or slow, or steady or jerky
- breathing is fast or slow, deep or shallow
- voice is loud or soft
- body is upside down or right side up
- body is moving or still
- muscles are tense or relaxed

# Sensory:

## How does the outside world feel?



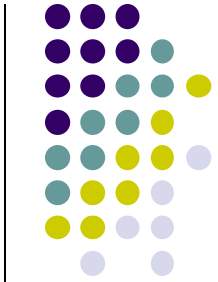
- Sensory processing happens when the nervous system receives energy from the environment around us and changes it into sensations like:
  - Hearing sounds
  - Vision
  - Touch – light touch and deep pressure
  - Taste and Smell
  - Awareness of body in space (proprioception)
  - Balance (vestibular)
  - Pain

# Sensory:

## How does the outside world feel?

- Sensory modulation happens when the brain balances sensory signals in an appropriate way.
- Sensory modulation helps us sort out if information coming into our bodies is too much or too little, too long or too short or too fast or too slow.

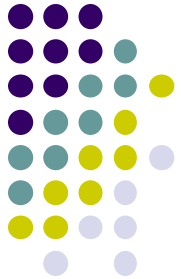
# Relevance:
## What meaning is made of  emotions?



- Early in development babies are sorting out their inside bodily feelings and outside world sensations to figure out what is important to them and what they will pay attention to over time.
- We develop positive and negative emotions, then we blend emotions and the memories of these emotions help us learn.

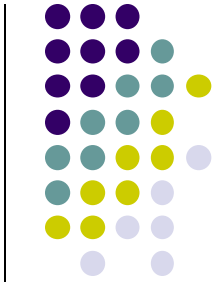
# Relevance:

## What meaning is made of  emotions?



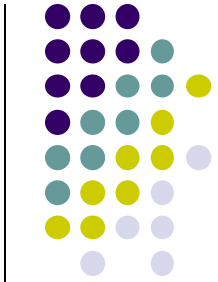
- What are my emotions? Happy, sad, angry, disgusted, surprised, afraid?
- How are others feeling?
- Are we feeling the same or different feelings?
- What does this emotion and experience mean to me and what does this mean to you?
- Is this emotion going to motivate me or not? Is it important to me?

# Executive:
# Adaptation to the outside world



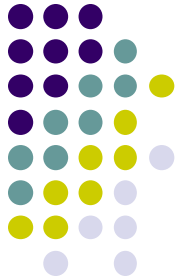
- The executive system integrates information from all the other systems.
- It depends on the quality of information it receives from the rest of the brain and body.
- All this work happens to make sure we achieve our goals and have appropriate social behaviours.
- This part of the brain takes the longest to develop (early twenties).

# Executive:
## Adaptation to the outside world



- The executive system in the brain is like the *air traffic control* centre at a busy airport. It makes real-time, real-world flexible and adaptive actions; what to do, how to do it and when to do it.
- The executive system guides our bodies through complex movements, focuses our attention, organizes our ideas, creates interesting ideas, and manages our emotions.

# Step #3: Organizing Individual Differences



How strong or weak are the branches of the tree?

- Assess for Individual Differences & Multiple Causes
- Map out all of the needs across systems of care on a “macro” level
- Map out the individual differences from each brain system on a “micro” level

# Step #3

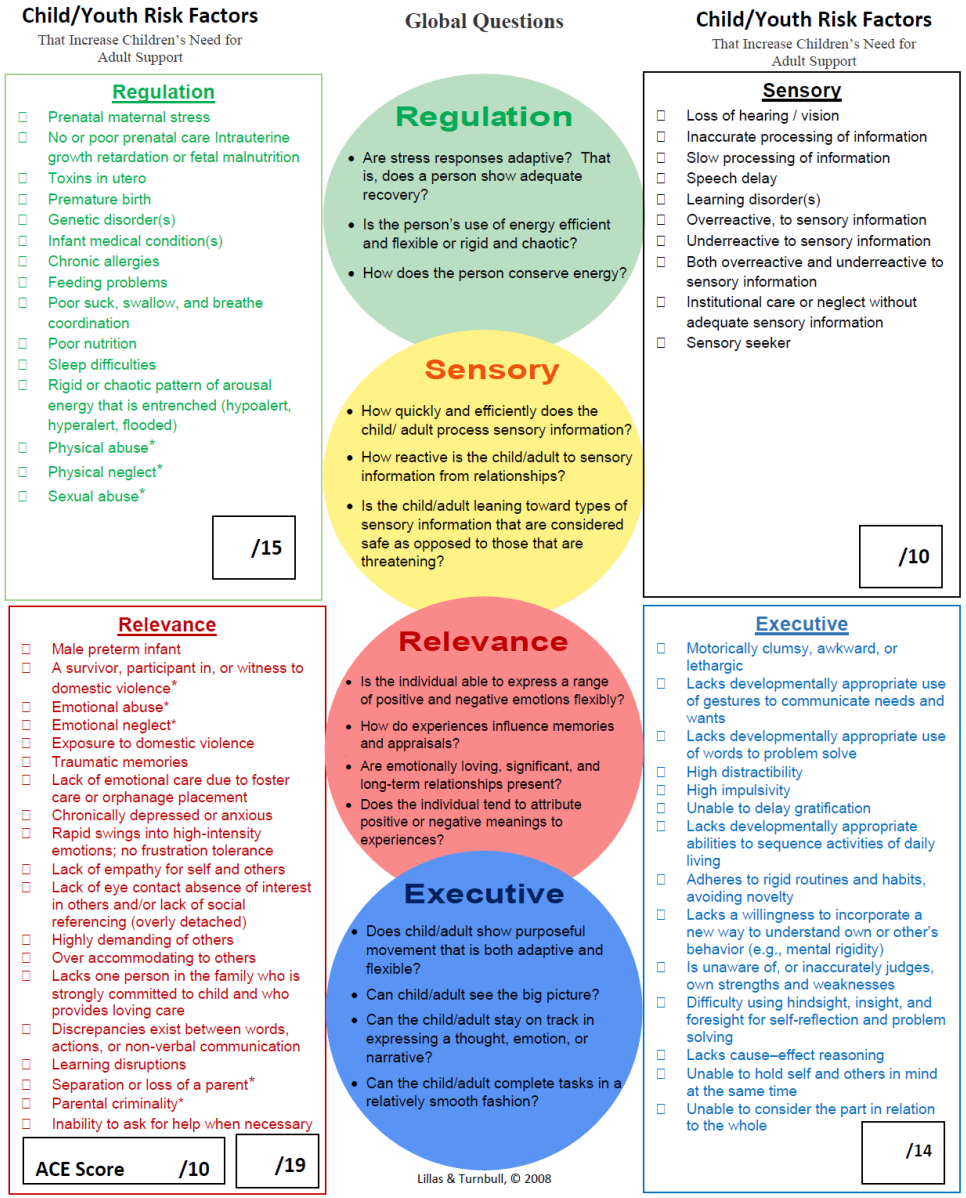
- What are the resilience and protective factors?
- What are the risk factors and needs?

Tools:

- History Worksheet
- Current Capacities Worksheet
- Triggers and Toolkits Worksheet

**Step #3**

# Four Brain Systems- History Checklist



**Step #3**

# Four Brain Systems- History Checklist

## Parental Risk Factors

That Can Compromise Parents' Ability to Offer Their Child Support

### Regulation

- ☐ Significant prenatal stressors
- ☐ No or poor prenatal care
- ☐ History of, or current substance abuse, smoking*
- ☐ Teenage pregnancy
- ☐ Poor nutrition
- ☐ Premature labor
- ☐ Multiple births
- ☐ Genetic disorder(s)
- ☐ Chronic medical condition(s)
- ☐ Chronic allergies
- ☐ Sleep difficulties
- ☐ Rigid or chaotic pattern of arousal energy that is entrenched (hypoalert, hyperalert, flooded)
- ☐ Low maternal education
- ☐ Few familial financial resources
- ☐ Unhygienic environment
- ☐ Inadequate food, shelter, or clothing
- ☐ Limited community resources
- ☐ Physical abuse*
- ☐ Physical neglect*
- ☐ Sexual abuse*

/20

### Relevance

- ☐ A survivor, participant in, or witness to domestic violence*
- ☐ Emotional abuse*
- ☐ Emotional neglect*
- ☐ History of children removed from home; abuse/neglect of other children
- ☐ Multiple children to care for
- ☐ Weak commitment to child
- ☐ Familial history of mental illness*
- ☐ Chronically depressed or anxious
- ☐ Rapid swings into high-intensity emotions; low frustration tolerance
- ☐ Lack of empathy for self and others
- ☐ Difficulty making eye contact and lacking warmth
- ☐ Negative appraisal of child as willfully disobeying or as not loving parent
- ☐ Parent unable to set boundaries and over-accommodates child
- ☐ Discrepancies exist among words, actions, or non-verbal communication
- ☐ Learning disruptions
- ☐ Inability to ask for help when necessary
- ☐ Separation or loss of a parent*
- ☐ Parental criminality*

ACE Score /10

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## Global Questions

### Regulation

- Are stress responses adaptive? That is, does a person show adequate recovery?
- Is the person's use of energy efficient and flexible or rigid and chaotic?
- How does the person conserve energy?

### Sensory

- How quickly and efficiently does the child/ adult process sensory information?
- How reactive is the child/adult to sensory information from relationships?
- Is the child/adult leaning toward types of sensory information that are considered safe as opposed to those that are threatening?

### Relevance

- Is the individual able to express a range of positive and negative emotions flexibly?
- How do experiences influence memories and appraisals?
- Are emotionally loving, significant, and long-term relationships present?
- Does the individual tend to attribute positive or negative meanings to experiences?

### Executive

- Does child/adult show purposeful movement that is both adaptive and flexible?
- Can child/adult see the big picture?
- Can the child/adult stay on track in expressing a thought, emotion, or narrative?
- Can the child/adult complete tasks in a relatively smooth fashion?



## Parental Risk Factors

That Can Compromise Parents' Ability to Offer Their Child Support

### Sensory

- ☐ Loss of hearing or vision
- ☐ Inaccurate processing of information
- ☐ Slow processing of information
- ☐ Speech abnormality
- ☐ Learning disorder(s)
- ☐ Overreactive to sensory information
- ☐ Underreactive to sensory information
- ☐ Both overreactive and underreactive to sensory information
- ☐ Over or under stimulating living environment
- ☐ Sensory seeker

/10

### Executive

- ☐ Motorically clumsy, awkward, or lethargic
- ☐ High distractibility
- ☐ High impulsivity
- ☐ Unable to delay gratification
- ☐ Lacks stable routines
- ☐ Adheres to rigid routines and habits, avoiding novelty
- ☐ Lack of knowledge concerning normative child development
- ☐ Difficulty anticipating the need to sequence and implement agreed-on clinical input
- ☐ Lacks a willingness to incorporate a new way to understand a child's behavior (e.g., mental rigidity)
- ☐ Is unaware of, or inaccurately judges, own strengths and weaknesses
- ☐ Difficulty using hindsight, insight, and foresight for self-reflection and problem solving
- ☐ Lacks cause–effect reasoning
- ☐ Unable to hold self and others in mind at the same time
- ☐ Unable to consider the part in relation to the whole

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## BRAIN SYSTEMS: STRESS TRIGGERS AND RECOVERY TOOLKITS

**For Yourself**

| STRESS TRIGGERS | RECOVERY TOOLKITS | |
|---|---|---|
| **Body (Regulation)** | **Regulation (Body)** | |
| | SELF | WITH OTHER |
| **Sensations (Sensory)** | **Sensations (Sensory)** | |
| | SELF | WITH OTHER |

| STRESS TRIGGERS | RECOVERY TOOLKITS | |
|---|---|---|
| **Feelings (Relevance)** | **Feelings (Relevance)** | |
| | SELF | WITH OTHER |
| **Thoughts/Planning (Executive)** | **Thoughts/Planning (Executive)** | |
| | SELF | WITH OTHER |

Connie Lillas, PhD, MFT, RN
Co-author, Lillas & Turnbull, *Infant Mental Health, Early Intervention, & Relationship-Based Therapies: A Neurorelational Framework for Interdisciplinary Practice*, www.the-nrf.com

Voice mail: 626-577-9332 infantmentalhealth@earthlink.net

# What Are Your Triggers?

4 Trigger Points:

- Body
- Sensing
- Feeling
- Thinking/Planning

# What Are Your Toolkits?

4 Prevention/Recovery Toolkits:

- Body
- Sensing
- Feeling
- Thinking/Planning


# Facilitate Recovery in Self

**Put Your Oxygen Mask on First, Then Help Others**

# Conclusion

# Parallel Processes…

Integrating…from micro to macro

- Personal
- Interpersonal
- Institutional
- Cultural

Simultaneously, similar dynamics occurring on multiple levels

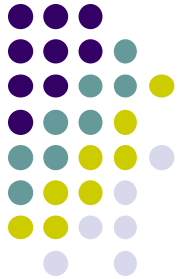
# NRF Guiding Principles

***Assessment is Intervention and***

***Intervention is Assessment***

- The NRF is both an Assessment and an Intervention Process
- The NRF can be used both sequentially and non-sequentially

# Once a toxic stress pattern is identified, start looking ahead at the treatment team goals! (Steps are both sequential and non-sequential)



To ensure Sleep and increase Green Zone

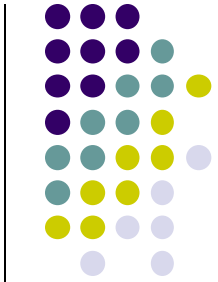
(step #1)

To work on the first 3 levels of engagement when the relationship is Green (step #2)

To identify Triggers & Toolkits for Sleep and Green Zone

(step #3)

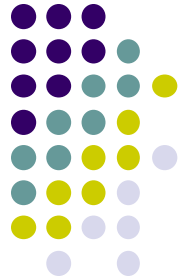
# NRF Guiding Principles Step #1



- ***Always start at the earliest point in the breakdown***.

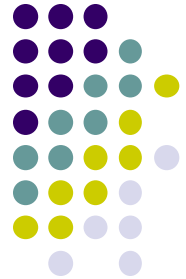
- This principle applies to all three steps. Step #1 is the first Level of Engagement and the first Brain System, Regulation.

# NRF Guiding Principles: Step #2



- In general, you cannot solve bottom-up problems with top-down solutions!

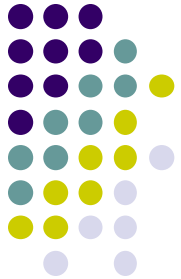
# NRF Guiding Principles, Step #3



On a **MACRO** level use the four brain systems for:

- Orienting a family to all of the services the child will need and why
- Guiding which treatment team providers are needed across sectors
- Organizing a treatment team triage as to which services are a priority when there are limited resources (e.g., go with more bottom-up/top-down?)

# Assessment Principles Step #3

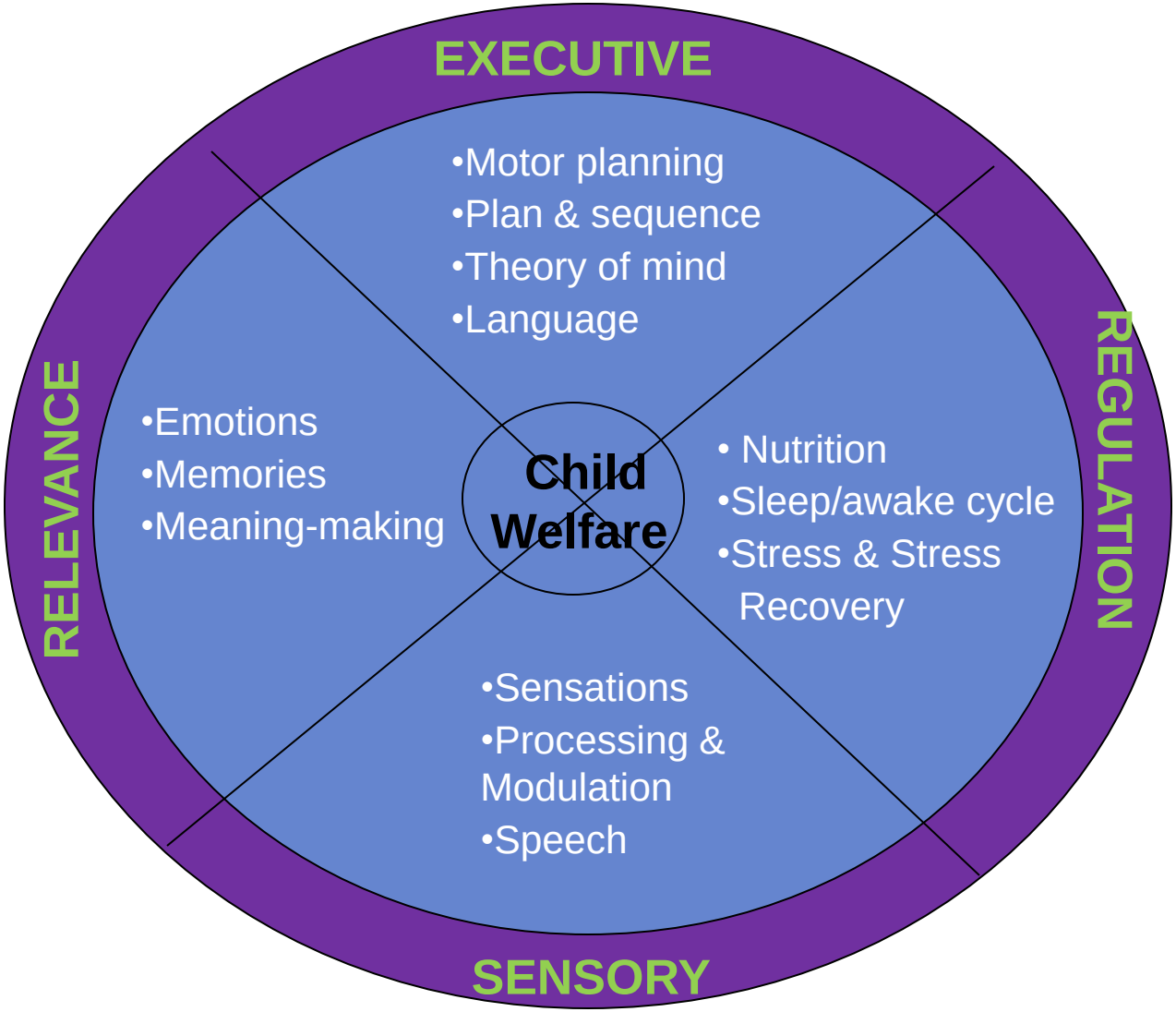


On a **MICRO** level use the four brain systems for:

- Developing multiple ways in which you understand the child's triggers from bottom-up to top-down
- Developing bottom-up and top-down toolkits for co-regulation and self-regulation
- If you only have the typical "behavioral" lens in which to understand the child, it may be fueling the fires of challenging stress responses!

# Four Brain Systems: Macro & Micro Levels

**Early Care & Education**




**Mental Health**

**Basic Needs/ Medical**

**Developmental Disabilities**

Lillas & Turnbull, 2009

Shonkoff, J. **Capitalizing on Advances in Science to Reduce the Health Consequences of Early Childhood Adversity.** *JAMA Pediatr*. Published online August 22, 2016. doi:10.1001/jamapediatrics.2016.1559

"This growing knowledge base suggests 4 shifts in thinking about policy and practice:

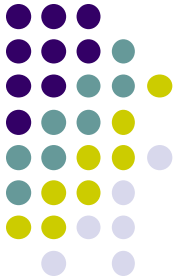
(1) early experiences affect lifelong health, not just learning;

(2) healthy brain development requires protection from toxic stress, not just enrichment;

(3) achieving breakthrough outcomes for young children facing adversity requires supporting the adults who care for them to transform their own lives; and

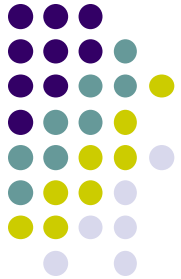
(4) more effective interventions are needed in the prenatal period and first 3 years after birth for the most disadvantaged children and families."

# Neurorelational Framework: Clinical Practice



- It is essential that assessment and intervention accommodate complexity
- Value and relevance can be found in all our clinical approaches
- Interdisciplinary collaboration takes knowledge sharing to a level that requires reciprocity pages 496-497

# Neurorelational Framework: Clinical Practice



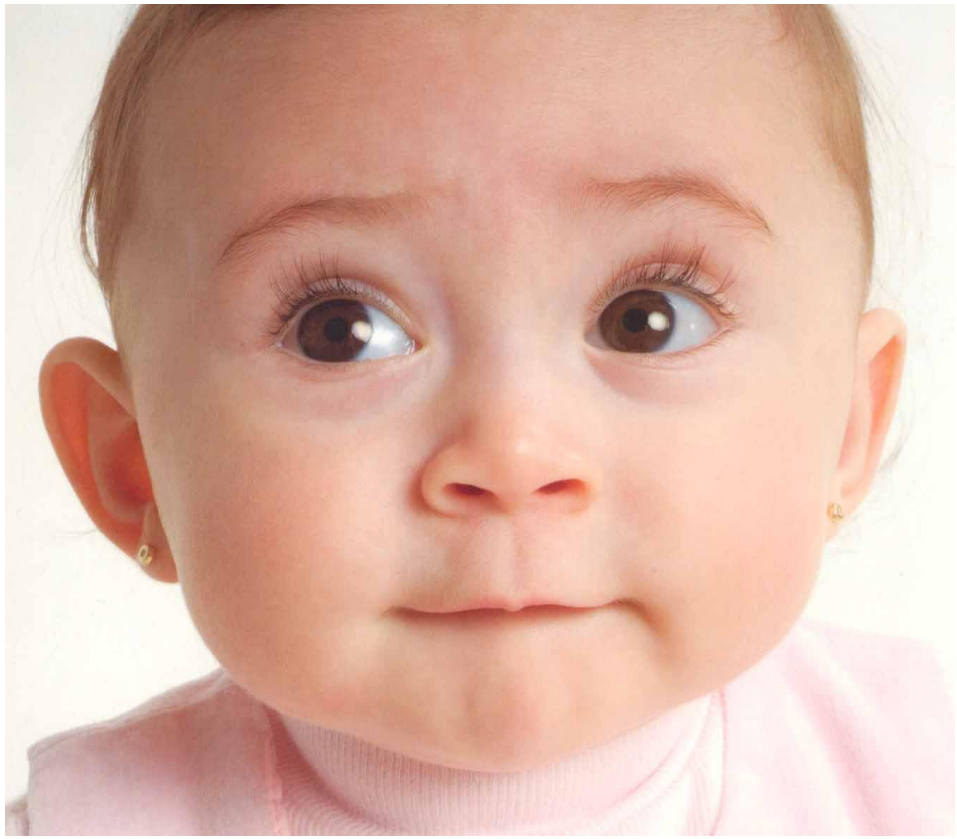
In an ideal world …

- the absence of an interdisciplinary approach would be substandard
- there would be more syntheses from diverse collaborations
- developmental research would continue to reflect increasing degrees of complexity
- interdisciplinary competencies would positively affect training, service delivery and public policy

pages 495-7

# Questions and Comments

? ? ?



# Contact Us

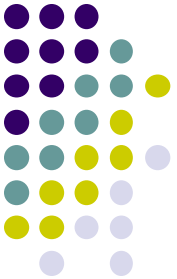
Dr. Hapchyn

ca.hapchyn@gmail.com

Coming soon: NRF Global Communities

www.nrfgc.com

# Other Learning Opportunities



Webinars:

- FASD Network, 90 min, CAH and Dr. Gail Andrew, July, 2016
- IMHP 6 hour webinar, CAH, archived (Infant Mental Health Promotion, Toronto, April, 2016)

- http://www.iacapap2016.org Sept 21, 2016, Calgary, Dr. Lillas, Keynote

# References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- www.albertafamilywellness.org
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- www.child-encyclopedia.com
- www.circleofsecurity.net
- www.healthybabyhealthybrain.ca
- www.childtrauma.org

## Finding Your ACE Score

**While you were growing up, during your first 18 years of life:**

**1. Emotional Abuse:** Did a parent or other adult in the household often or very often ...
Swear at you, insult you, put you down, or humiliate you? …or
Act in a way that made you afraid that you might be physically hurt? Yes No If yes enter 1

**2. Physical Abuse:** Did a parent or other adult in the household often or very often ...
Push, grab, slap, or throw something at you? or
Ever hit you so hard that you had marks or were injured? Yes No If yes enter 1

**3. Sexual Abuse:** Did an adult or person at least 5 years older than you ever ...
Touch or fondle you or have you touch their body in a sexual way? …or
Attempt or actually have oral, anal, or vaginal intercourse with you? Yes No If yes enter 1

**4. Emotional Neglect:** Did you often or very often feel that ...
No one in your family loved you or thought you were important or special? …or
Your family didn't look out for each other, feel close to each other, or support each other? Yes No If yes enter 1

**5. Physical Neglect:** Did you often or very often feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? If yes enter 1
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it? Yes No If yes, enter 1

**6. Parental Separation:** Were your parents ever separated or divorced? Yes No If yes enter 1

**7. Caretakers – Inter Partner Violence:** Was your mother or stepmother:
Often or very often pushed, grabbed, slapped, or had something thrown at her?
Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?
Ever repeatedly hit at least a few minutes or threatened with a gun or knife? Yes No If yes enter 1

**8.Alcoholism:** Did you live with anyone who was a problem drinker or alcoholic or who used street drugs? Yes No If yes enter 1

**9.Mental Illness:** Was a household member depressed or mentally ill, or did a household member attempt suicide? Yes No If yes enter 1

**10. Prison:** Did a household member go to prison? Yes No If yes enter 1

**Now add up your "Yes" answers: This is your ACE Score.**

Adverse Childhood Experiences Study, Fellitti et al.