

Kicking it off: Neurorelational Framework Overview



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A training based upon the work of
Connie Lillas, PhD, MFT, RN

www.the-nrf.com

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The Importance of Early Years

Critical Years for Setting Up a Fragile or Sturdy Foundation



“What happens during the first months and years of life matters a lot, not because this period of development provides an indelible blueprint for adult well-being, but because it sets either a sturdy or fragile stage for what follows.”

Shonkoff, Jack P. & Deborah A. Phillips, eds.
*From Neurons to Neighborhoods:
The Science of Early Childhood Development.*

Connie Lillas, PhD, MFT, RN © 2010



The Importance of the Early Years : Three Premises



Experiences lay down:

1. Neural connections and pathways (brain development)
2. Positive or negative lifelong expectations (procedural memories)
3. Adaptive or toxic stress response patterns

Premise One:

Experiences Lay Down Circuits

Brain Growth

- Newborn's brain is 25% of adult's size
- By 3 years of age, the brain has grown to 80% to 85% of adult size
- By 6 years of age, the brain has grown to 90% of adult size



Image: www.brainconnection.com

© 1999 Scientific Learning Corporation

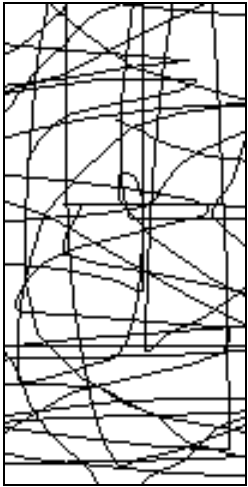
Sheri Hill, PhD, Faculty on Policy, University of Washington

Premise One:

Experiences Lay Down Circuits



**“Neurons that fire together
wire together”**



Newborn



**Early
Childhood**



**Later
Childhood**

Premise Two:

Experiences Lay Down Life-Long Expectations



- What is most familiar and automatic to us, is called procedural memory
- Procedural memories = built in expectations
 - To be loved
 - To be comforted
 - To be confident
 - To be neglected
 - To be treated with hostility
 - To be treated with anxiety

The Importance of The First 3 Years

Experiences Lay Down Life-Long Expectations



Procedural Memories:

- Begin at birth
- Dominate the early years
- Not easy to change; can last a lifetime
- Lay down expectations for relationships, habits, routines

Premise Three:

Experiences Lay Down Reactions to Stress



Effects of stress on the brain

- Long-term stress from abuse, neglect, and multiple caregivers impact medical and mental health conditions
- Upper limits for stress tolerance are getting set up along with brain circuits and memories
- Brains bathed in long-term stress which activates stress hormones that poison the brain circuits

Premise Three:

Experiences Lay Down Reactions to Stress



Normal and Long-term Stress:



Alarm / **Relaxation**



Chronic Stress



Building Better Brains



The Importance of the Early Years : Three Premises



Experiences lay down:

1. Neural connections and pathways (brain development)
2. Positive or negative lifelong expectations (procedural memories)
3. Adaptive or toxic stress response patterns

Translating the Three Premises into Three Steps

Three Premises:

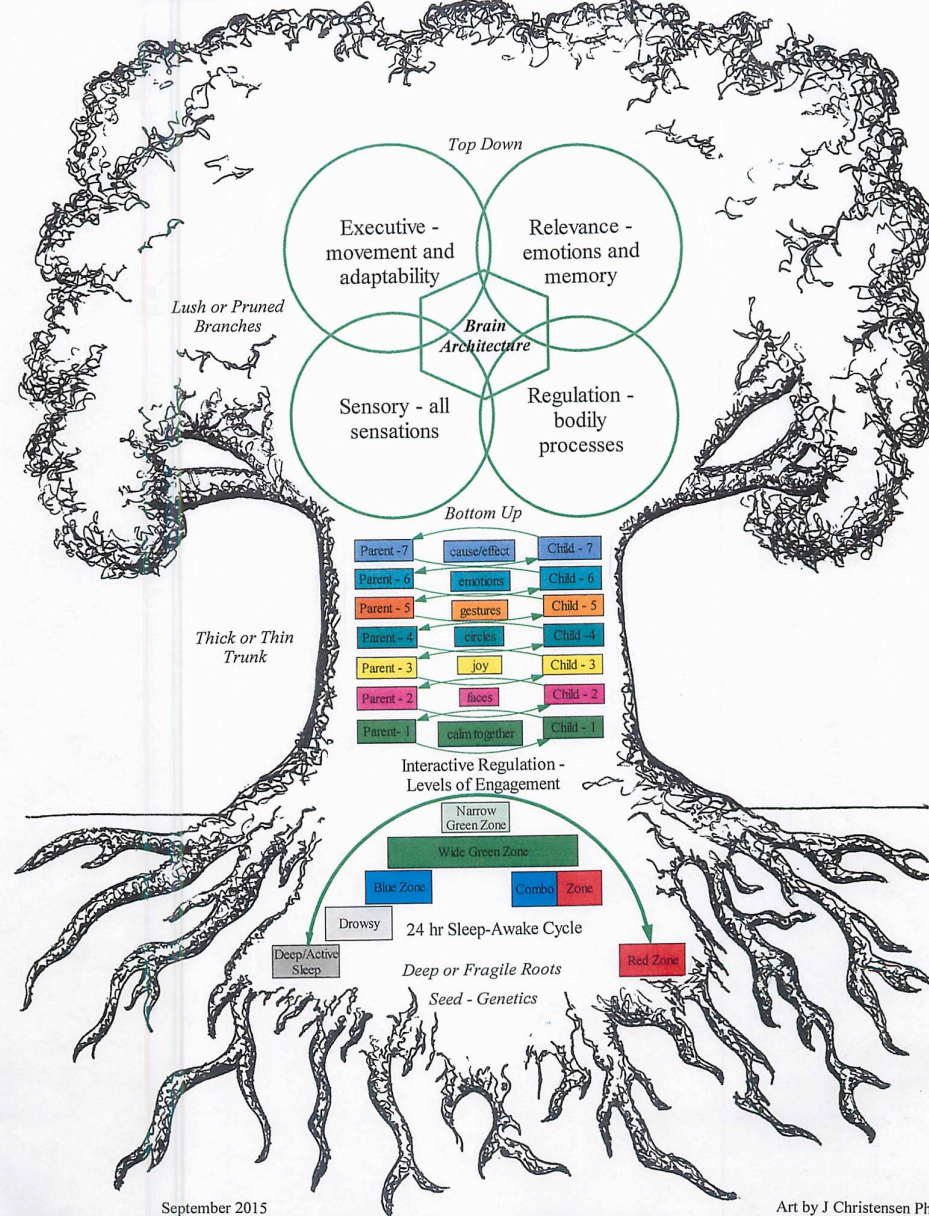
- Stress thresholds, with stress and stress recovery patterns
- Procedural memories and the quality of engagement
- Development of brain networks and circuits (architecture)

What assessment information to obtain (3 steps to NRF):

- *Step 1:* Have child and parents assessed for toxic stress conditions
- *Step 2:* Have parent-child socio-emotional milestones assessed
- *Step 3:* Have child & parents assessed for individual sources of vulnerability & resilience in brain networks

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 One:

How do we identify stress & stress recovery ?



- A. Recognize what stress recovery looks like
- B. Recognize three primary stress responses
- C. Recognize four toxic stress patterns

Step One Cheat Sheet: Assessing Stress Responses and Stress Recovery

STEP #1

Possible Regulation and Stress Response Correlates of Interpersonal Modes Across the Lifecycle

Awake State and Interpersonal Mode	Just Right/Alert Processing	Too Fast/Flooded	Too Slow/Hypocret	Too Vigilant/Hyperalert
EYE CONTACT	<ul style="list-style-type: none"> Bright, shiny eyes looking directly at other (object – pleasant) Gaze necessary for modulation of intimacy Appears to actively process information 	<ul style="list-style-type: none"> Eyes may be open/semi-closed May have direct, intense eye contact May have avoidance of eye contact Eye rolling upward Screaming from very quickly, rapidly 	<ul style="list-style-type: none"> Glassed eyes, looking through rather than at the other/object Distorted gaze/aversion Appears drowsy Eyes tensed down Eyes do not scan the room, looking for objects of desire When interested, peeks looking at objects rather than people 	<ul style="list-style-type: none"> Eyes are wide open Appears vigilance in a state of panic or fear Intensely focusing on something Unable to break the concentration to the outside
FACIAL EXPRESSION	<ul style="list-style-type: none"> Joy, particularly smiles Neutral Can express a full range of emotions Modulation with all emotions 	<ul style="list-style-type: none"> Wide, open mouth Angry, disgust Derisive Grimace Frowning Clenched jaw or teeth Furrowed brows (only mouth is squared, corners of eyes are not) 	<ul style="list-style-type: none"> Flat Turned down mouth, and Depressed No smiles or hints of smiles Limited range of emotions 	<ul style="list-style-type: none"> Raised eyebrows, especially with inside corners tensed up Trembling lips or mouth Facial expressions of pain, pleasure Mouth wide open (staccato)
VOICE	<ul style="list-style-type: none"> Melody and prosody Modulation of tone Phonations of tone Laughing 	<ul style="list-style-type: none"> High-pitched cry Low Hostile Gruff Yelling or screaming Sarcastic, sneering Hyperventilating 	<ul style="list-style-type: none"> Flat Lacks musical quality Few or no vocalizations Too quiet Cold Soft Sad 	<ul style="list-style-type: none"> High-pitched nasal, "ringing" voice Muzzling or growling to indicate pain Elevated tone Quavering or fluctuating Whispering
BODY POSTURE, MOVEMENT, AND GESTURES	<ul style="list-style-type: none"> Relaxed with good muscle tone Stability Balance Moves arms and legs into Coordinated movements Vocal according to rhythm and tone Body molds into other's 	<ul style="list-style-type: none"> Upper limbs Arching Increased muscle tension at posture and in face Coordinated motion Demands space by pushing, shoving, bumping, etc. Strong, jerky, kicking, jumping Poor balance; falls, trips a lot Bumps into things Furrowed or threatening gestures (clenched finger, shaking fist) Thawing Kicking 	<ul style="list-style-type: none"> Slumped Low muscle tone Decreased expression Lacks interest in expression With no interest "hike" "space" Avoids playground equipment Lacks purposeful intent with movement Wanders Evades or slow moving 	<ul style="list-style-type: none"> Stiff or rigid body posture Coercive Fluid, repetitive body movements (twisting body, grasping body) Trembling hands Clenching Flailing Grabbing
RYTHM AND RATE	<ul style="list-style-type: none"> Thawing up and down Melting tempo 	<ul style="list-style-type: none"> Fast Impulsive 	<ul style="list-style-type: none"> Slow Delayed 	<ul style="list-style-type: none"> Fast Sticky

Note: From Infant/Child Mental Health, Early Intervention, and Relationship-Based Therapies: A Neurodevelopmental Framework for Interdisciplinary Practice, by Lillias & Turnbull, © 2009, New York, W. W. Norton with permission to use from W. W. Norton.

Awake States with Stress Responses

Step #1

GREEN ZONE Just Right/Alert	EYES <ul style="list-style-type: none"> Bright, shiny eyes Looks directly at people, objects Looks away for breaks, then returns to eye contact Seems alert, takes in information FACE <ul style="list-style-type: none"> Smiles, shows joy Neutral Can express all emotions VOICE <ul style="list-style-type: none"> Laughing Tone changes 	BODY <ul style="list-style-type: none"> Relaxed with good muscle tone Stable, balanced and coordinated movements Infant moves arms and legs toward center of the body Infant molds body into a caregiver when held Moves faster or slower depending on environment RYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Changes smoothly to respond to the environment Movements not too fast or too slow
RED ZONE Too Fast/Gar Peck	EYES <ul style="list-style-type: none"> Open, squinted or closed eyes May have direct, intense eye contact May avoid eye contact FACE <ul style="list-style-type: none"> Eyes roll upward Eyes look quickly around the room Wide, open mouth Angry, disgust Frown Fake/forced smile Clenched jaw or teeth VOICE <ul style="list-style-type: none"> High-pitched crying, yelling or screaming Low 	BODY <ul style="list-style-type: none"> Hostile or grumpy Sarcastic Out of control laughing Fingers spread out Arched back; tense body position Constant motion Demand space by pushing, shoving, and getting into others' space Biting, hitting, kicking, jumping, throwing Bumps into things, falls Threatening gestures (shakes finger or fist) RYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Fast movements Impulsive movements
BLUE ZONE Too Slow/Freeze	EYES <ul style="list-style-type: none"> Glassed-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 <ul style="list-style-type: none"> Flat/blank Mouth turned down, sad No smiles or hints of smiles Few emotions shown VOICE <ul style="list-style-type: none"> Whispering 	BODY <ul style="list-style-type: none"> Slumped/slouching Low muscle tone Little or no exploring play or curiosity Wanders Frozen or slow-moving RYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Slow movements Slow to start moving
ORANGE ZONE Fast & Irritable & Incoherent	EYES <ul style="list-style-type: none"> Wide open eyes Looks around as if worried or scared Stares at things Rolling of the eyes FACE <ul style="list-style-type: none"> Raised eyebrows Furrowed brow Trembling lips or mouth Seems in pain Mouth wide open Startled expression VOICE <ul style="list-style-type: none"> High-pitched, nasal, ring, growl voice 	BODY <ul style="list-style-type: none"> Moves or groans in pain Whimpers Wobbly/quivering voice or fast changes Tense or rigid posture Covers or hides Fast, repetitive movements (jerks hands, shakes foot) Trembling hands Clinging, grabbing Falls around RYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Fast movements Jerky movements

From Infant/Child Mental Health, Early Intervention, and Relationship-Based Therapies: A Neurodevelopmental Framework for Interdisciplinary Practice, by Lillias & Turnbull, © 2009, New York, W. W. Norton
Revised 4-15-14

Step #1

Are you in the GREEN?



Adapted by Jessica Richards based on Lillias & Turnbull 2009

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

Recognize stress responses that are *too frequent, too quick, too long*

4 Toxic Stress Patterns

1. Stress responses that occur too frequently and too quickly
2. Cannot adapt to "normal" challenges and transitions
3. Prolonged stress responses that take too long to recover (more than 10 to 20 mins)
4. Cannot recover from stress response back to baseline health (healthy sleep cycle, healthy awake state)

Bruce McEwen

How do we identify healthy stress responses?



- Allostasis =
 - **Healthy rubber band, that stretches out nicely and bounces back**
 - **Coordination between flexibility & stability**
 - Flexible stress responses
 - Stable deep sleep and green zone

Step One:

How do we identify stress recovery ?



- Recognize what stress recovery looks like:
 - Deep sleep
 - Green zone

Deep sleep is restorative...



Possible Regulation and Stress Response Correlates of Interpersonal Modes Across the Lifecycle

Arousal State and Interpersonal Mode	Just Right/ Alert Processing Stability with Flexibility	Too Fast/Flooded High Demand	Too Slow/Hypoalert High Detach	Too Vigilant/Hyperalert High Compliance or Control
EYE CONTACT	<ul style="list-style-type: none"> Bright, shiny eyes looking directly at other / object — gleam! Gaze aversions for modulation of intensity Appears to actively process information 	<ul style="list-style-type: none"> Eyes may be open / squinted / closed May have direct, intense eye contact May have avoidance of eye contact Eye rolling upward Scanning room very quickly, rapidly 	<ul style="list-style-type: none"> Glazed eyes, looking through rather than at the other/object Prolonged gaze aversion Appears drowsy Eyes turned down Eyes do not scan the room, looking for objects of desire When interested, prefers looking at objects rather than people 	<ul style="list-style-type: none"> Eyes are wide open Appears vigilant, in a state of panic or fear Intensely focusing on something Unable to break the gaze/fixation to the stimulus
FACIAL EXPRESSION	<ul style="list-style-type: none"> Joy, particularly smiles Neutral Can express a full range of emotions Modulation with all emotions 	<ul style="list-style-type: none"> Wide, open mouth Anger, disgust Distress Grimace Frowning Clenched jaw or teeth Forced smile (only mouth is upturned, corners of eyes are not) 	<ul style="list-style-type: none"> Flat Turned down mouth, sad Expressionless No smiles or hints of smiles Limited range of emotions 	<ul style="list-style-type: none"> Raised eyebrows, especially with inside corners turned up Trembling lips or mouth Facial expressions of pain, grimace Mouth wide open (startle)
TONE OF VOICE	<ul style="list-style-type: none"> Melody and prosody Modulation of tone Fluctuations of tone Laughing 	<ul style="list-style-type: none"> High-pitched cry Loud Hostile Gruff Yelling or screaming Sarcastic, sneering Hysterical laughter 	<ul style="list-style-type: none"> Flat Lacks musical quality Few or no vocalizations Too quiet Cold Soft Sad 	<ul style="list-style-type: none"> High-pitched nasal, "sing-song" voice Moaning or groaning to indicate pain Elevated tone Quavers or fluctuates rapidly Whimpering
BODY POSTURE, MOVEMENT, AND GESTURES	<ul style="list-style-type: none"> Relaxed with good muscle tone Stability Balance Moves arms and legs into midline Coordinated movements Varies according to rhythmic ups and downs Body molds into other's 	<ul style="list-style-type: none"> Finger splays Arching Increased muscle tension in posture and in face Constant motion Demands space by pushing, shoving, intruding on others Biting, hitting, kicking, jumping Poor balance; falls, trips a lot Bumps into things Forceful or threatening gestures (shaking finger, shaking fist) Throwing Kicking 	<ul style="list-style-type: none"> Slumped Low muscle tone Decreased exploration Lacks initiative in exploration Will not protect his/her "space" Avoids playground equipment Lacks purposeful intent with movement Wanders Frozen or slow moving 	<ul style="list-style-type: none"> Tense or rigid body postures Cowering Rapid, repetitive body movements (wringing hands, jiggling foot) Trembling hands Clinging Flailing Grabbing
RHYTHM AND RATE	<ul style="list-style-type: none"> Fluctuating up and down Midrange tempo 	<ul style="list-style-type: none"> Fast Impulsive 	<ul style="list-style-type: none"> Slow Delayed 	<ul style="list-style-type: none"> Fast Jerky



A Baby's
"Just right"



ships



Green Zone:

Reading alert processing cues



- Eyes
- Facial expressions
- Tone of voice
- Gestures
- Body movements
- Rhythm
- Intensity

- ✓ Bright, shiny
- ✓ Joy, Full range
- ✓ Modulation
- ✓ Relaxed with good tone
- ✓ Stability and Balance
- ✓ Fluctuating
- ✓ Midrange

Step One:

How do we identify three primary stress responses?



Recognize the three primary stress responses:

- Red zone
- Blue zone
- Combo zone

Possible Regulation and Stress Response Correlates of Interpersonal Modes Across the Lifecycle

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RHYTHM AND RATE	<ul style="list-style-type: none"> Fluctuating up and down Midrange tempo 	<ul style="list-style-type: none"> Fast Impulsive 	<ul style="list-style-type: none"> Slow Delayed 	<ul style="list-style-type: none"> Fast Jerky



A Baby's **Flooded** State:



Red Zone: Reading Flooded Cues



- Eyes
 - ✓ Direct, intense
- Facial expressions
 - ✓ Anger, disgust
- Tone of voice
 - ✓ Hostile
- Gestures
 - ✓ Forceful/threatening
- Body movements
 - ✓ Rapid motion
- Rhythm
 - ✓ Fast, impulsive
- Intensity
 - ✓ High

Disruptive Behavior Disorder, ADHD,
Oppositional Defiant Disorder, Intermittent
Explosive Disorder

A Baby's **Shut-Down** State



Blue Zone: Reading Shut-Down Cues



- Eyes
 - ✓ Glazed
- Facial expressions
 - ✓ Expressionless or sad
- Tone of voice
 - ✓ Flat
- Gestures
 - ✓ Slow moving
- Body movements
 - ✓ Slumped
- Rhythm
 - ✓ Slow, delayed
- Intensity
 - ✓ Low

Depression, ADD, PTSD



A Baby's **Vigilant** State:



Combo Zone: Reading vigilant cues

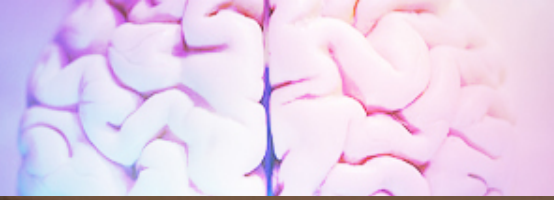


- Eyes
- Facial expressions
- Tone of voice
- Gestures
- Body movements
- Rhythm
- Intensity

- ✓ Wide open
- ✓ Raised eyebrows
- ✓ High pitched
- ✓ Tense or clinging
- ✓ Rigid
- ✓ Fast
- ✓ Moderate to high

Generalized Anxiety Disorder, Separation
Anxiety Disorder, PTSD

A Baby's **Vigilant** State:



Three Stress Responses



Plotting out the patterns



Combo



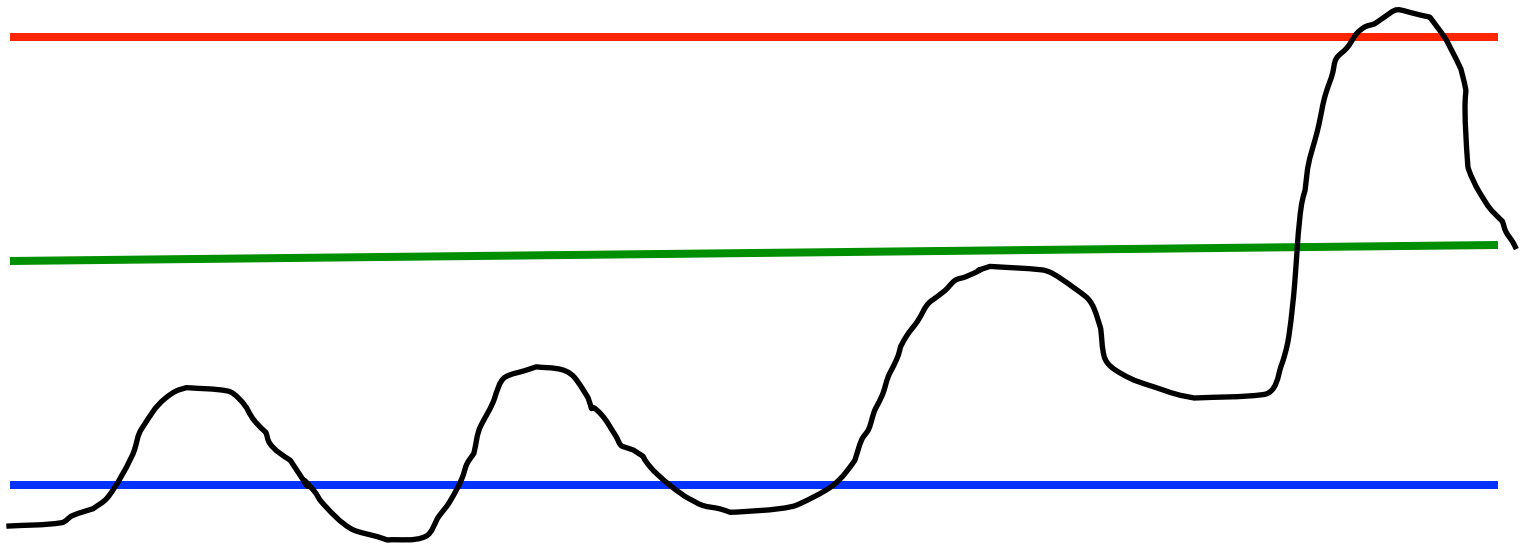
Red



Green



Blue



How do we identify toxic stress?



- Allostatic load =
 - Pattern where the rubber band is either too tight or too loose
 - Loss of coordination with too much rigidity or too much chaos

How do we identify toxic stress?



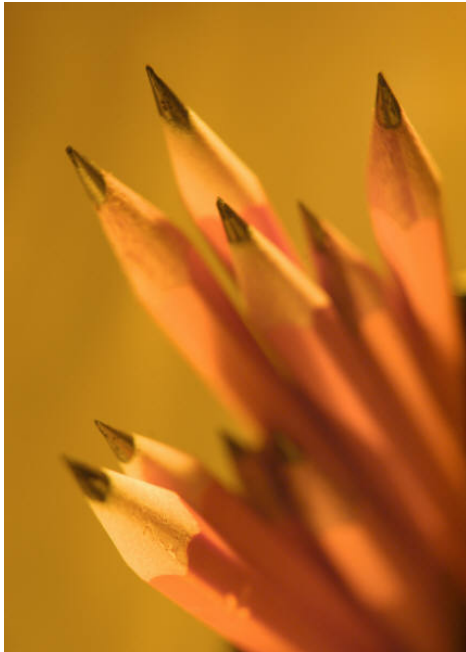
Recognize stress responses that are
too frequent, too quick / intense, too long

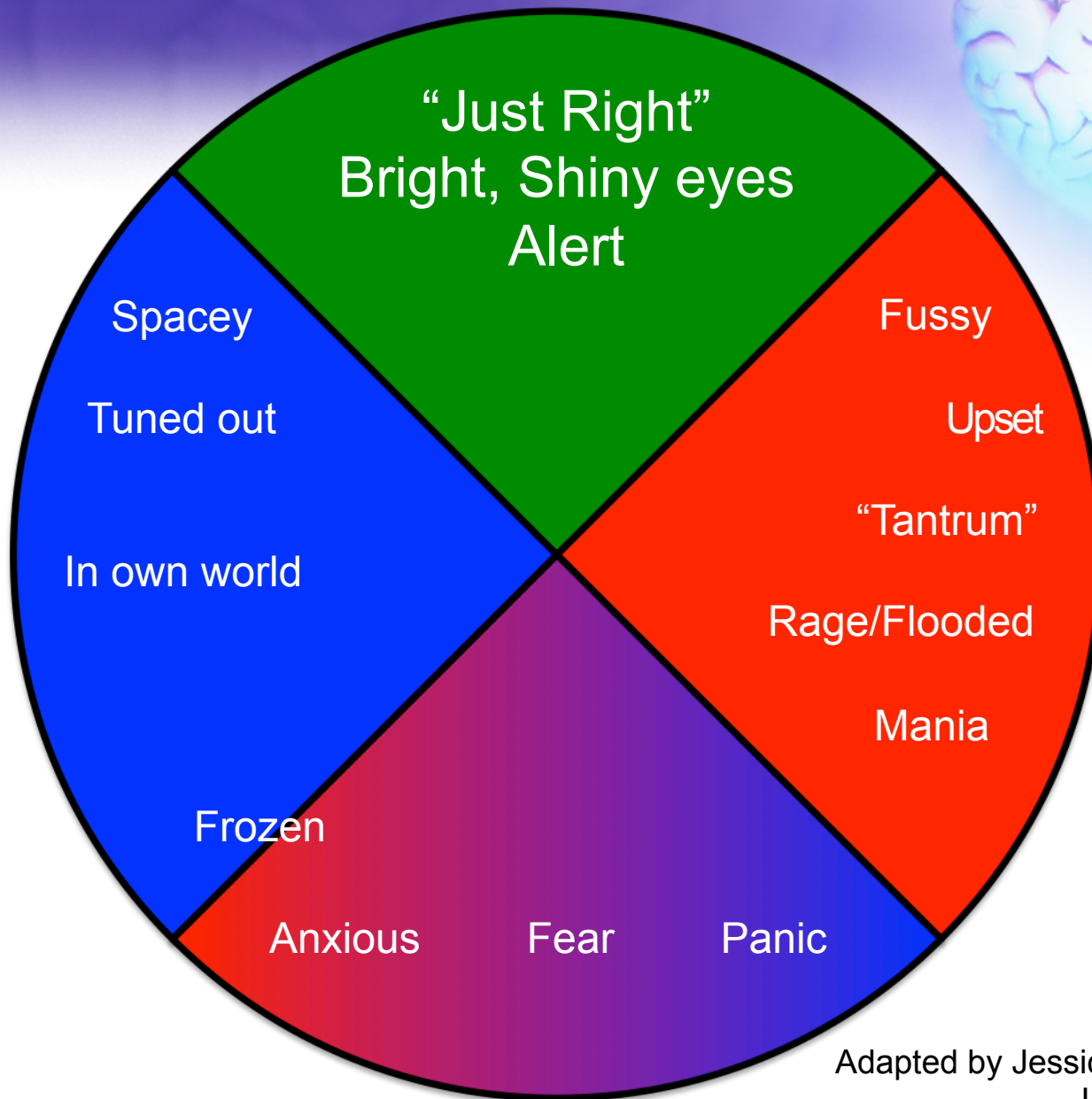
4 Toxic Load Stress Patterns

1. Stress responses that occur too frequently and too quickly
2. Inability to adapt to “normal” challenges and transitions
3. Prolonged stress responses that take too long to recover (more than 10 to 20 mins)
4. Inability to recover from stress response back to baseline health (healthy sleep cycle, healthy awake state)



Let's practice and apply...

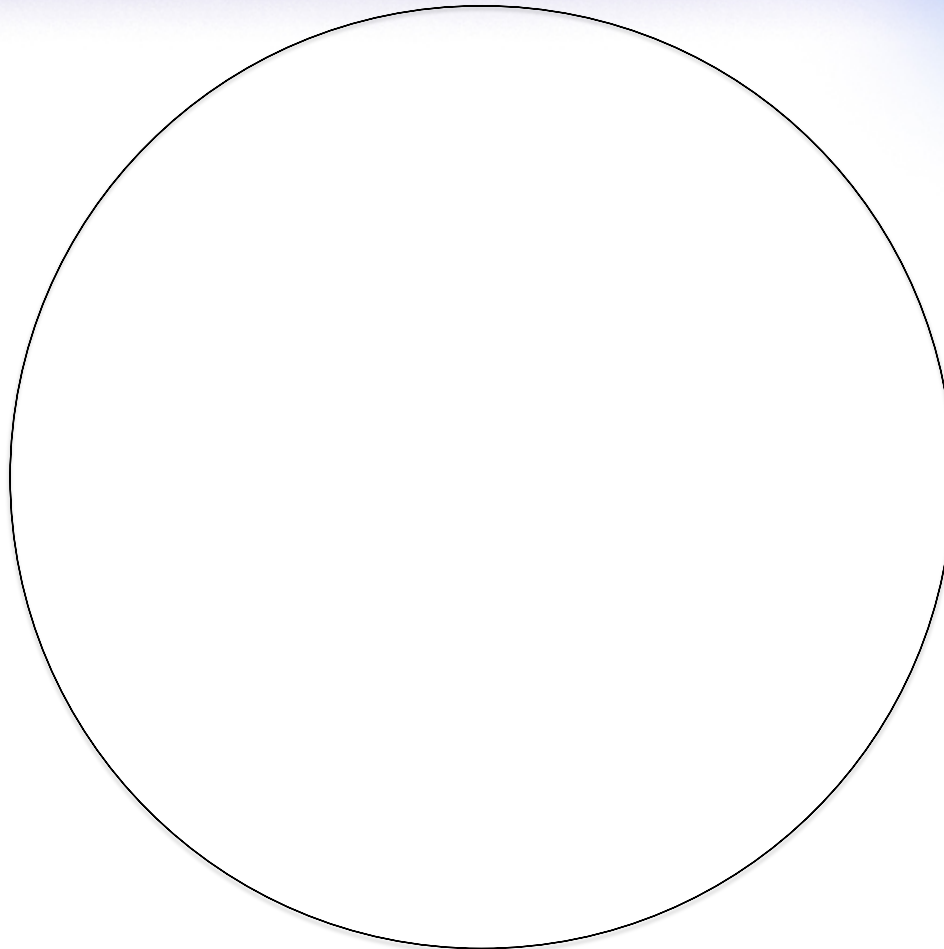




Adapted by Jessica Richards based on
Lillas & Turnbull, 2009

Using States of Arousal with families

Is s/he in the “Green”?



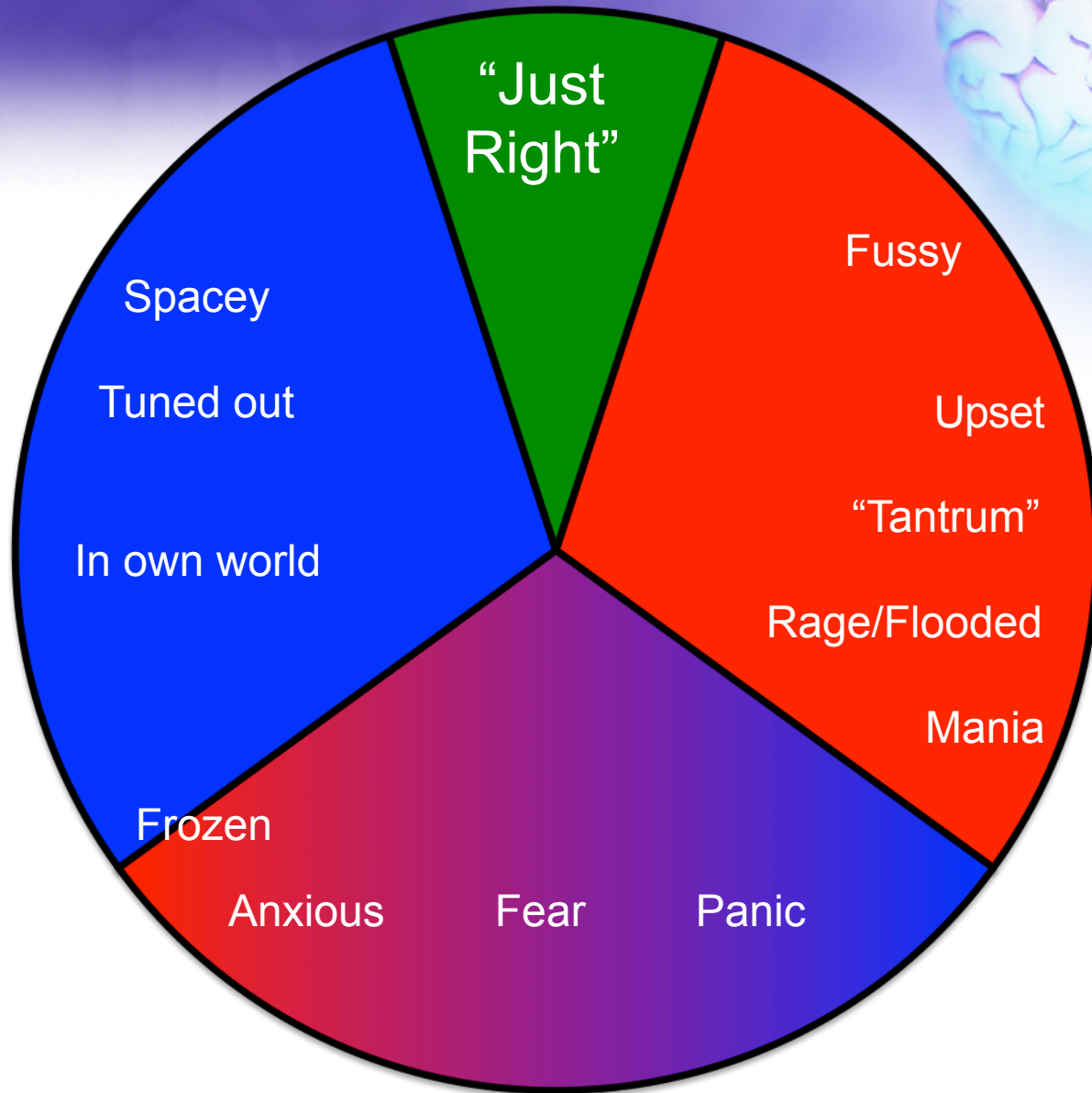
Are you in the “Green”?



Using States of Arousal with families



- Using the worksheet, explain the “Pie”
- When is the child in the red, blue or combo zone (tendency?)
- Think together about when the child is in the green zone
- The goal is to expand the amount of time the child is in the green zone – this is where learning and social emotional growth occur
- When is the parent in the green?
- When are you in the green?



States of Arousal for therapists, caregivers and kids



- Parallel process – caregiver must be regulated (green zone) to co-regulate child
- Therapist/teacher must also be in the green zone to effectively work with caregivers and kids
- True for them, true for you
- Put your oxygen mask on first! Then, help your clients!

What does stress look like?



What does “green zone” look like?



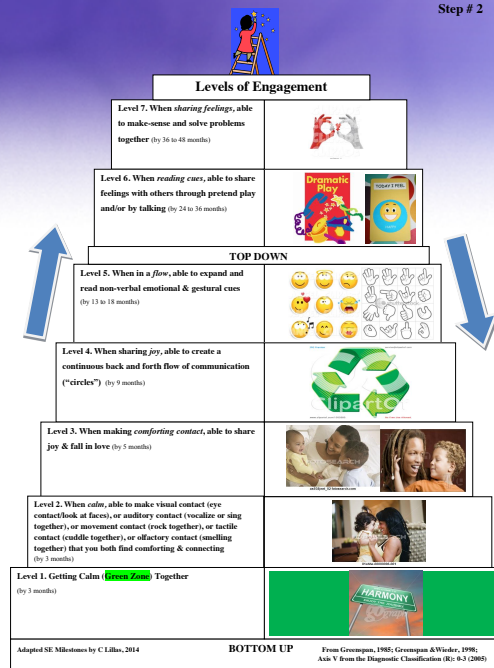
Step Two: Social Emotional Milestones



These fundamental capacities emerge in infancy and grow in duration, range and stability as the child develops.



Step Two Cheat Sheet: Assessing the Quality of the Relationship



STEP #2

PARENT-CHILD RELATIONSHIP MILESTONES

Child: _____ Caregiver: _____ Examiner: _____ Date: _____ Diagnosis: _____

	1	2	3	4	5	6
Place an X in the box that matches the milestone and achievement levels	Age appropriate under all conditions, including stress, with a full range of emotions	Age appropriate but vulnerable to stress and/or restricted range of emotions	Has capacity but not at age appropriate level	Inconsistent/needs sensorimotor support and structure to function at this capacity	Barely evidences capacity even with support	Has not reached this level
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 visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smelling together) that you both find comforting & connecting (by 3 months)						
Level 3. When making comforting 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 FEEL; adapted language & organization by Connie Lillias



Levels of Engagement

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



Level 6. When *reading cues*, able to share feelings with others through pretend play and/or by talking



TOP DOWN

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



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



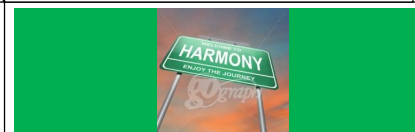
Level 3. When making *comforting contact*, able to share joy & fall in love



Level 2. When *calm*, able to make visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smelling together) that you both find comforting & connecting



Level 1. Getting Calm (**Green Zone**) Together



Step Two: Levels 1-3



Bottom-Up (non-verbal capacities)

Level 1 Getting calm (green) together

Level 2 When *calm* able to make eye contact & look at faces

Level 3 When making *eye 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

PARENT-CHILD RELATIONSHIP MILESTONES

Child: _____ Caregiver: _____ Examiner: _____ Date: _____ Diagnosis: _____

	1	2	3	4	5	6
Place an X in the box that matches the milestone and achievement levels	Age appropriate under all conditions, including stress, with a full range of emotions	Age appropriate but vulnerable to stress and/or constricted range of emotions	Has capacity but not at age appropriate level	Inconsistent/needs sensorimotor support and structure to function at this capacity	Barely evidences capacity even with support	Has not reached this level
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 <i>calm</i>, able to make visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smelling together) that you both find comforting & connecting (by 3 months)						
Level 3. When making <i>comforting contact</i>, able to share joy & fall in love (by 5 months)						
Level 4. When sharing <i>joy</i>, able to create a continuous back and forth flow of communication (“circles”) (by 9 months)						
Level 5. When in a <i>flow</i>, able to expand and read non-verbal emotional & gestural cues (by 13 to 18 months)						
TOP-DOWN						
Level 6. When <i>reading cues</i>, able to share feelings with others through pretend play and/or by talking (by 24 to 36 months)						
Level 7. When <i>sharing feelings</i>, able to make-sense and solve problems together (by 36 to 48 months)						

Step Two: Levels One and Two



1. Getting calm together

From birth to three months an infant's capacity for “Green Zone” grows. When an infant is in the green there is opportunity to take interest in the sights and sounds and movement of the world.

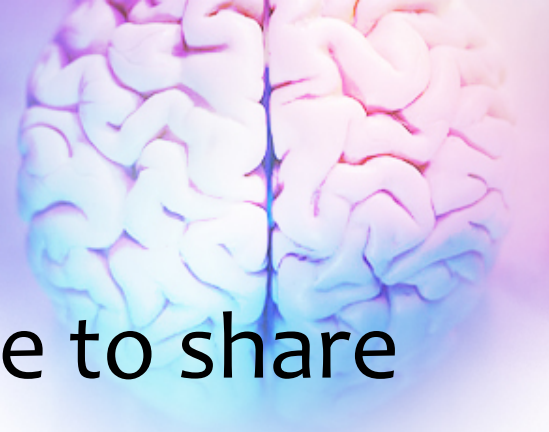
2. When *calm* able to...

make visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smelling together) that you both find comforting & connecting

Level 1 & 2: Couple's build on sturdy green zone with eye contact to share joy...



Step Two: Level Three



- When making eye contact able to share joy.
 - During the first four months, infants and parent become more intimate as they interact with warmth, trust. Hugs, songs, looks, dancing and reading together provide opportunities to enjoy each other and fall in love.
 - Over time the child will remain engaged across a full range of emotions.

SE Milestone Language Adapted by Connie Lillas

What you are going to see



- Watch for the bright eyes
- Look for the baby breaking gaze, looking away, then coming back to the face again
- Feel the rhythm of the back and forth, the up and down in intensity of joy
- See the father's low intensity facial expression
- Notice his vocal rhythm is slow or not present

Let's Check Our Falling in Love Status!



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Step Two: Levels Four and Five



Bottom-Up (non-verbal capacities)

Level 1 Getting calm (green) together

Level 2 When *calm* able to make eye contact & look at faces

Level 3 When making *eye 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

Step Two: Level Four



- When sharing *joy*, able to create a continuous back-and-forth flow of communication
 - By nine months, purposeful, continuous flow of interactions with gestures and expressions develops. As the infant gains motor control, the ability to point, reach, grab and drop objects, creep, sit, roll, crawl all support this back-and-forth flow.

SE Milestone Language Adapted by Connie Lillas

What is a “circle”?

- The first person begins a connection
 - Could be a look, a sound, a gesture
- The second person responds
- The first person responds back!

- It takes 3 prongs to complete a circle
- We call it opening a circle and then closing a circle



Step Two: Level Five



- When in a flow, able to expand *non-verbal communication* through an increasingly nuanced ability to read emotional cues, intentions, gestures, and to solve problems.
 - By 18 months, the infant has learned the patterns of the back-and-forth flow and begins to use this awareness to think about how to solve problems or get what he wants i.e. pulling Mommy's hand to the refrigerator to get a snack.
 - Later, as verbal language expands this task is carried out verbally.

What we are going to see



- Look for the back and forth circles on a facial, joyful level
- Look for the back and forth circles on a vocal level
- What are some hypotheses regarding how we got to this level?

Let's Check Our Circles & Reading Nonverbal Cues



Step Two: Level Six and Seven



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

Step Two: Level Six



- When sharing *emotions*, able to create stories via symbolic play & pretend play, with developing language skills
 - Beginning at 24 months, toddlers are able to represent intentions, ideas and feelings in imaginative play or with language using words and toys.
 - Powerful coping tool! Can gain mastery or use a symbol to express a big idea (“Me mad” without hitting)

Step Two: Level Seven



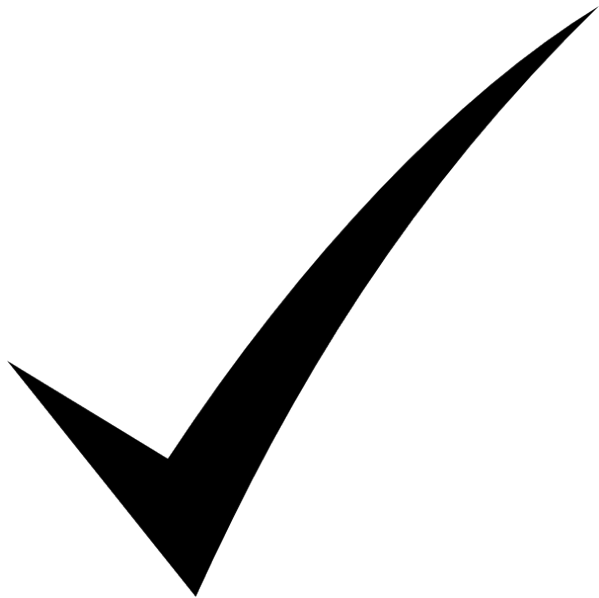
- When using emotional *stories*, able to make-sense and solve problems together
 - Emerging during 36-48 months, children can bridge and combine ideas to use emotions in play to solve problems.
 - Stories in play have a beginning, middle, end and reflect an understanding about how one event leads to another.

What we are going to see



- Working out fears and anxieties about “the hippo” on the Small World ride
- Tries to “be brave” and still expresses fears
- Uses lovie to help her
- “Tries on” new roles of being “brave” and crying

Let's Check Our Sharing Our Feelings & Problem Solving



Step Two: Levels of Relationship



Bottom-up, Inside the Emotional House

- Level 1: Getting to green zone together
- Level 2: Sharing eyes and faces together
- Level 3: Sharing joy and falling in love
- Level 4: Creating circles back and forth
- Level 5: Reading non-verbal cues & gestures

Top-down, the Roof to the Emotional House

- Level 6: Sharing feelings through pretend play and talking
- Level 7: Able to make-sense of feelings and solve problems together

PARENT-CHILD RELATIONSHIP MILESTONES

Child: _____ Caregiver: _____ Examiner: _____ Date: _____ Diagnosis: _____

	1	2	3	4	5	6
Place an X in the box that matches the milestone and achievement levels	Age appropriate under all conditions, including stress, with a full range of emotions	Age appropriate but vulnerable to stress and/or constricted range of emotions	Has capacity but not at age appropriate level	Inconsistent/needs sensorimotor support and structure to function at this capacity	Barely evidences capacity even with support	Has not reached this level
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 <i>calm</i>, able to make visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smelling together) that you both find comforting & connecting (by 3 months)						
Level 3. When making <i>comforting contact</i>, able to share joy & fall in love (by 5 months)						
Level 4. When sharing <i>joy</i>, able to create a continuous back and forth flow of communication (“circles”) (by 9 months)						
Level 5. When in a <i>flow</i>, able to expand and read non-verbal emotional & gestural cues (by 13 to 18 months)						
TOP-DOWN						
Level 6. When <i>reading cues</i>, able to share feelings with others through pretend play and/or by talking (by 24 to 36 months)						
Level 7. When <i>sharing feelings</i>, able to make-sense and solve problems together (by 36 to 48 months)						

The Zone of Proximal Development



What a child or “couple” can do on their own,
you let them do

What a child or “couple” cannot do on their
own, you provide support

- How far up the relational ladder can the relationship get on its own?
- Where do things break down?
- Start at the earliest point in the breakdown to build new procedures
- Get support where you need it!

Toxic stress cuts across all levels of brain networks



- Looking at the big picture...
 - **Assess for multiple causes that can be mutually influencing each other**
 - **Build resilience through any one of multiple ports of entry**



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STEP #3

Liles & Terrell, © 2004

STEP #3

Life & Times, © 2000

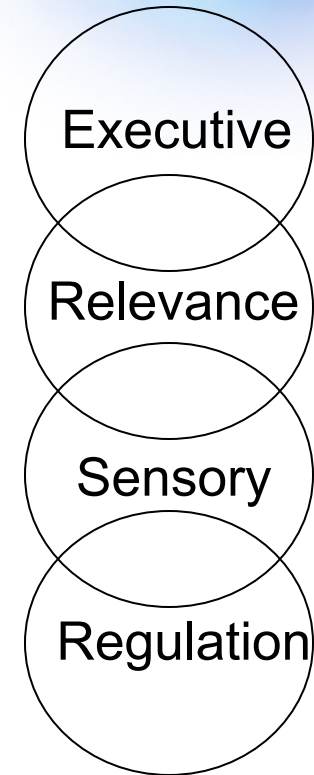
Step Three:

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 systems of care
- Assess on a “Micro” level functional needs that help guide the triage
- Distinguish between developmental age and chronological age



Bottom-Up Progression

Four Brain Systems



- **Regulation system** includes
 - Stress and stress recovery
 - Capacity for alert processing
 - State transitions
 - Visceral cues
 - Nutrition
 - Sleep/awake cycle



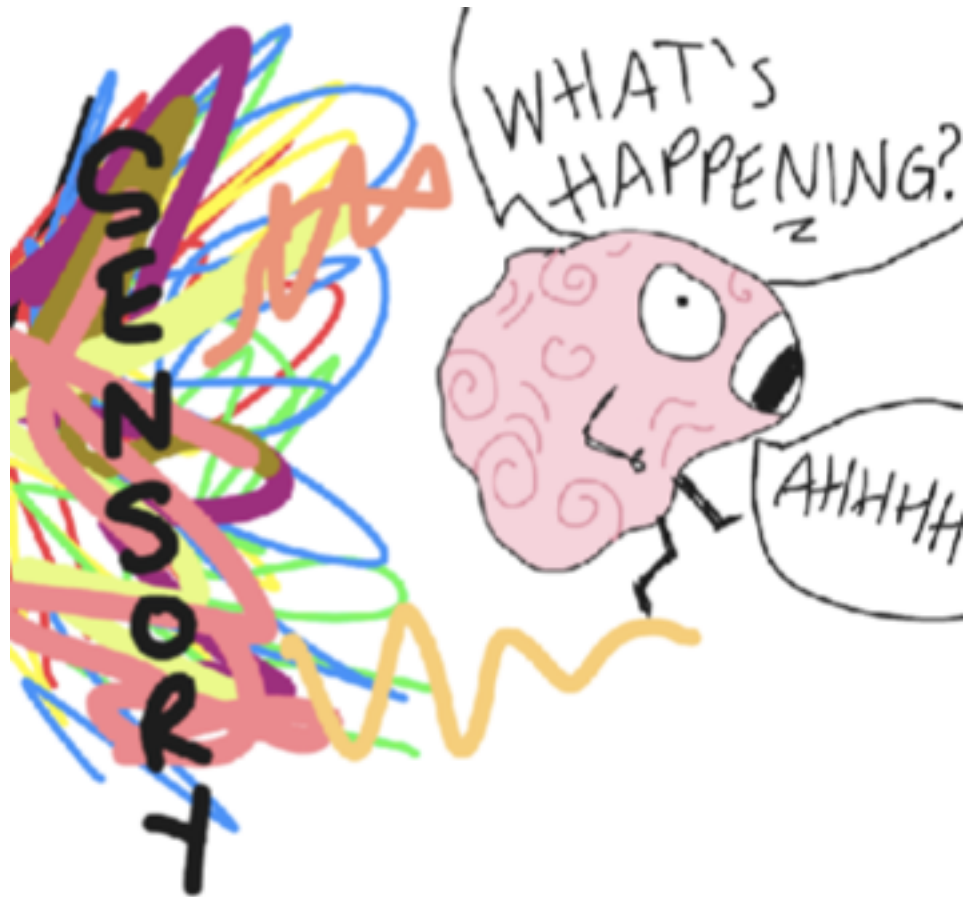
Adapted by Jessica Richards based on
Lillas & Turnbull, 2009

Four Brain Systems



- **Sensory system** includes
 - Sensory processing
 - Sensory modulation (sensitization and habituation)
 - Sensory preferences and triggers
 - Provides the “data” for all brain systems
 - External Senses (world – Tactile, Taste, Smell, Auditory, Vision)
 - Internal Senses (body – Proprioception, Vestibular)



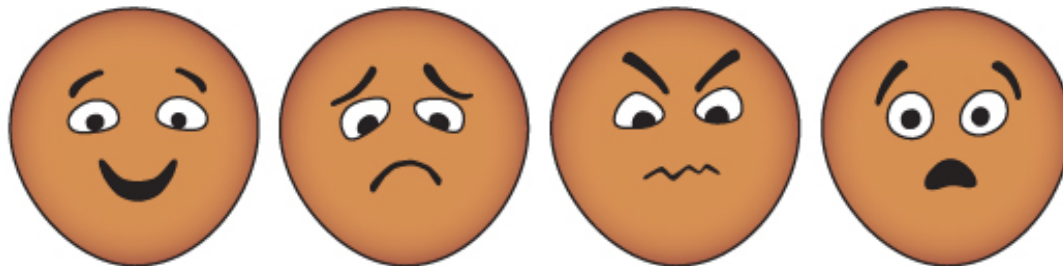


SENSORY OVERLOAD

Four Brain Systems



- **Relevance system** includes
 - Emotions – capacity to express, experience and modulate a full range of emotions in context
 - Memories
 - Meaning making



Four Brain Systems

- **Executive system** includes
 - Flexible use of spontaneous, automatic and consciously controlled behavior
 - Integration of bottom up
 - Motor planning
 - Cause and effect
 - Inhibition
 - Theory of mind
 - Working memory

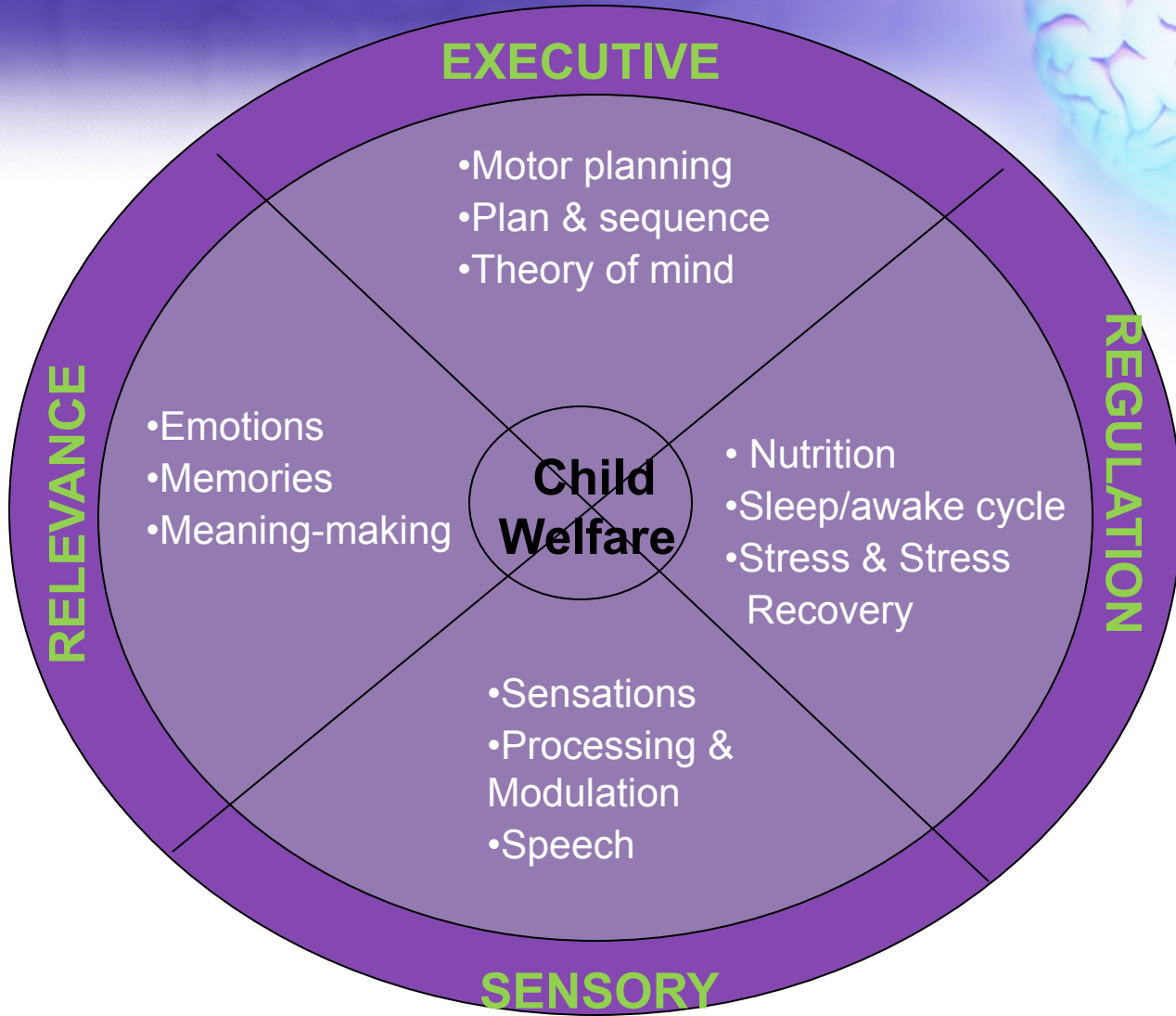


Four Brain Systems: Macro & Micro Levels

Early Care &
Education



Mental
Health



Basic Needs/
Medical

Developmental
Disabilities

NRF Application to your role



- **Group 1:** One-time interaction/assessment with no ongoing client contact
- **Group 2:** Providers with on going contact with clients
- **Group 3:** Providers or managers who attend local meetings of agencies
- **Group 4:** Supervisors/Consultants/Managers/Directors who do not have direct client contact

Thinking ahead...

- Homework! Think of a case...



For more information...



- Lillas, C. & Turnbull, J. (2009). *Infant/Child Mental Health, Early Intervention, and Relationship-Based Therapies: A Neurorelational Framework for interdisciplinary Practice*. New York: Norton.

The Neurorelational Framework

<http://the-nrf.com>

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Thank You!