

**The Expectation Gap:
Mismatching and Matching
Neurodevelopment**

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Dr. Delahooke and myself are both using a shared language, addressing....

- Common assumptions about the meaning of children’s behaviors that our culture supports
- Paradigm shifts we believe are essential for healthy brain development in all settings, especially educational settings!
- Holding similar guiding principles:
 - Understanding children’s nervous systems changes how you view behavior
 - Co-regulation supports the emergence of self-regulation
 - Bottom-up (procedural) learning and expectations usually surpasses top-down learning and instructions
 - Relationships are key to healing; teacher’s relationships with children can provide new procedural experiences that last a lifetime



Catch the Balloons and Write Down Your Questions!

Which balloons will you catch? What questions do you have?






2 Common Assumptions with Parents and Professionals Alike!

Both assumptions require that young children have access to their capacity to 'inhibit' which requires "top-down" control

Bottom-up learning occurs through repetitive lived experiences through being and doing without the use of words

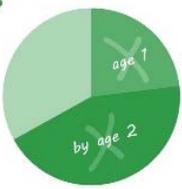
Top-down learning occurs through words, where verbal instructions, dialogue, and narratives predominate



When are children able to control their emotions?

24% of all parents believe children are able to control their emotions, such as not having a tantrum when frustrated, at 1 year or younger.

42% of parents believe children have this ability by 2 years.



ACTUAL age this develops **3 1/2 - 4 years**

Research shows this type of self-control is also just starting to develop between 3.5 and 4 years.

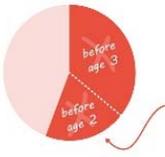
National Survey, 2016 - ZERO TO THREE



When do children have the impulse control to resist the desire to do something forbidden?

56% of parents believe children have the impulse control to resist the desire to do something forbidden before age 3.

Within that group, **36%** of parents believe that children under age 2 have this kind of self-control.



ACTUAL age this develops **3 1/2 - 4 years**

However, brain research shows that these skills start developing between 3.5 and 4 years, and take many more years to be used consistently.

National Survey, 2016 - ZERO TO THREE



When we expect children and youth to have the capacity to inhibit their behaviors, these become common Strategies for Discipline in a School Setting

- Ignoring the attention seeking behavior
- Using external rewards (e.g., stickers, earning points for a prize) to motivate
- Using time outs
- Removing the child from their classroom
- Sending the child home
- Removing the child from center/pre-school itself, suspension
- Permanent removal of a child from a program, expulsion



ZTT Coined these Mismatches as an Expectation Gap




The Expectation Gap

- Children are expected to self-regulate before their neurodevelopment supports it
- When they do not meet an adult's expectations, that feeds the cycle that the child is non-compliant and therefore, deserves discipline and punishment
- The punishment cycle breeds resentment and undermines trust and safety within the parent-child, teacher-child relationship
- This is intensified with children of color in many institutional settings



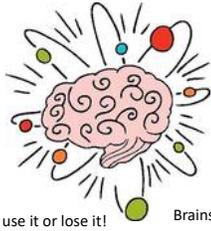
What provides a neurodevelopmental roadmap for matching?

- A relational guide
- That is developmental
- Provides the developmental age
- Helps one make distinctions between a child’s chronological age and developmental age
- Organizes bottom-up and top-down processes
- Guides a teacher/parent to know where to start!



“Cells that fire together, wire together”
Hebbian Learning Rule

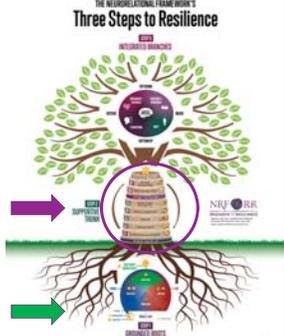
Relationships build brains!



Brains are use dependent= use it or lose it! Brains are not just born they are built



THE NEURORELATIONAL FRAMEWORK'S
Three Steps to Resilience
THE INTERRELATIONS

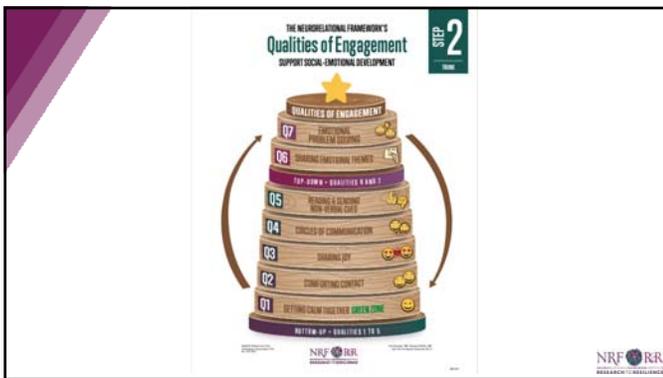


Dr. Connie

Dr. Mona



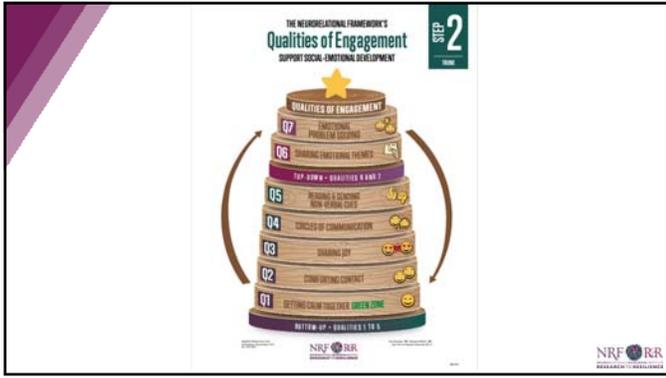


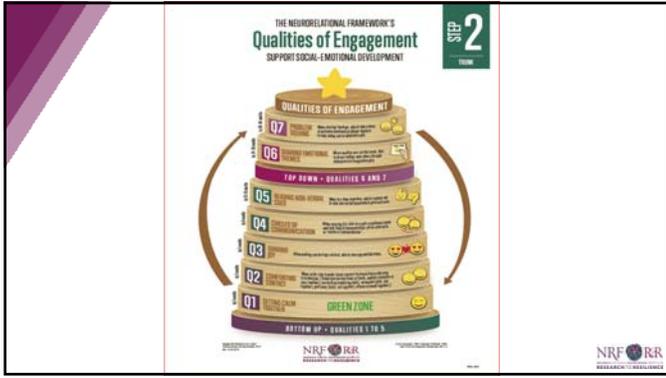


First, Development as Linear

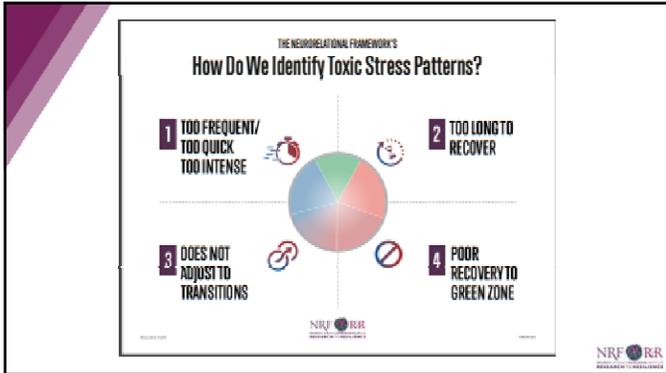
- Walking you through the qualities in a linear manner
- These qualities build upon one another; earlier qualities support the growing maturation of advancing development forward
- Many children show variation in their capacities depending on the context and person(s) they are with; be curious as to what these qualities look like with their parents, the aides, the playground monitor, etc.
- Bottom-up are the first 5 qualities
- Top-down are the last 2















Qualities of Engagement 4 & 5 build on the first three, establishing two-way communication
What is a circle of communication?



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RESEARCH TRANSLATION

How “thick” or “thin” is the trunk?

Building on Positive Procedural Memories



Building on Negative Procedural Memories



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RESEARCH TRANSLATION

Look for these things



- Watch the play, including the gestures, looks, and sounds involved
- As soon as the mother goes “still” look for all of the baby’s same gestures, looks, and sounds as she tries to re-engage her mom (These are all her procedural memories!)
- We will count all her bids for connection that she’s used to using
- Notice as they do not work, she increasingly becomes distressed
- Notice how quickly they “repair” and the reunion occurs after the “rupture”

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RESEARCH TRANSLATION

How far up these bottom-up QofE can you go with a child/youth?

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If there are glitches in the first five QofE, start with enriching these before relying on top-down!

To tailor to what your child needs, experiment co-regulating with....

- Sensorimotor activities and environments: lowering or enhancing stimulation in the classroom? Is there a quiet spot?
- Emotional support: lowering or enhancing your emotional tone and relational stimulation
- Structure and sequence: offer predictability and consistency

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Top-down Qualities of Engagement communicate emotions and make sense of problems

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Scaffolding is...

- "...the distance between what a child can do without help and what the child can do with help from someone else." (<http://www.embryonicstem.org/Zone-of-proximal-development.html>)
- Consider the rhythm of pace, pace, lead
- Help can come from a teacher, an aide, a tutor, a knowledgeable peer
- Establish whenever possible, a "go-to" person for a child who needs the extra relational support to have new procedural experiences, creating positive expectations and positive procedural memories
- That person knows the child better than others and can match their developmental level. What is this child's developmental capacity for engagement and their range?



Plenty of play in childhood makes for happy, smart adults -- and keeping it up can make us smarter at any age.



Play is more than just fun

Stuart Brown

2 decades of research on play. Dr. Stuart Brown says having, getting, maintaining, restoring and having are more than just fun. Plenty of play in childhood makes for happy, smart adults -- and keeping it up can make us smarter at any age.



YOU CAN MAKE A DIFFERENCE IN A LIFETIME



Additional Qualities Are Now Built!

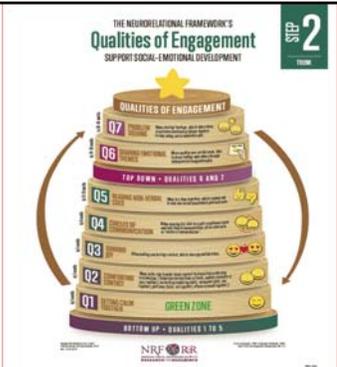
- Capacity 8: Multiple Perspectives (emerges 4 to 6 years of age) – investing in having more than one possibility
- Capacity 9: Gray Area Thinking (emerges 6 to 10 years of age) – moving out of black and white thinking into more complexity, nuances, and weighing several possibilities
- Capacity 10: Reflective Thinking and an Internal Standard of Self (emerges around age 9) – making distinctions between self and others, one can reflect on inferences and multiple realities at a time. Hindsight, insight, and foresight are time intervals that can be reflected upon in relationship to oneself and others.



Second, Development as Non-linear

- The arrows moving up and down communicate that it is vital to understand these qualities are dynamic and require flexibility on the part of the child's relational partner
- There may be earlier capacities in place that are not fully mastered
- When there are gaps, expect to be at times, working simultaneously on more than one quality at a time. When the child/youth is capable, notice that the top-down and bottom-up ways of relating can be mutually reinforcing the child's growth and potential





4 Disturbing Facts About Pre-school Expulsion
"The Preschool to Prison Pipeline"
2005, 3x more preschoolers expelled than kindergarten through high school

- It pathologizes normative children's behavior. 3.5 to 4 years old is the earliest ages for beginning to develop the top-down capacity to "inhibit" their motor system
- It can be driven by implicit racial bias. African American boys represent 19% of enrollment yet receive 45% of male expulsions
- Schools that use harsh discipline expel 2x the amount than other schools
- Expulsion rates were twice as high in private pre-schools than public ones. There is an increased freedom to discriminate that may go unchecked.

<https://www.americaprogress.org/issues/early-childhood/news/2017/03/30/429552/4-disturbing-facts-early-childhood-expulsion/>
<https://www.americaprogress.org/issues/early-childhood/reports/2015/10/08/122867/point-of-entry/>



Teacher's Implicit Biases

- "Preschool expulsion is not a child's behavior it is an adult decision"
(Walter S. Gilliam)
- What's driving this decision?
 - Hopeless that anything could be done to change the child's behavior
 - A perception that the child's behaviors are disruptive to the learning environment
 - Fear that other children would be harmed
 - Fear of accountability, that they, the teacher, would be blamed for other's behaviors that may cause harm to self and others
 - Teacher's perceived level of stress caused by the child's behavior(s)



Next, Dr. Delahooke...

- Three paradigm shifts necessary for redefining behaviors
- Takes you further into the concepts of safety vs. threat
- How our nervous systems show pathways of safety and threat for ourselves and the children we work with useful colors for a common language
- Emphasize the difference between bottom-up and top-down with the stress and stress recovery colors
- Practical ways educators can create safety in their classroom and relationships



Time for Sharing and Questions!

Please send your comments, any Aha moments you want to share, and questions to the facilitator





For More Handouts & Information:
www.nrfr2r.com/for-families/ www.nrfcare.org (4/4/22)



