

RDI®

# Relationship Development Intervention:

Re-examining the core deficits of autism and building  
relational competence in children on the autism spectrum

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# What We Will Cover

- Research regarding quality of life for individuals with ASD
- How Development Differs in Autism vs. Typical Infants
- Core Deficits of Autism
- Basic Principles of RDI
- Videos of RDI in Action
- Resources

# Recent studies of Quality of Life for ASD adults

Study	N	Job	Independence	Peers
NAS	450	6%	3%	17%
Howlin	68	12%	4%	19%
Seltzer, et al	154	10%	4%	14%

# Quality of life for adults with HFA/AS

Study	#	Employment	Independence
NAS	217	12%	3%
Farely	13	8%	0%
Engstrom	16	6%	0%

# IQ and language do not predict success for people with ASD's

- IQ scores below 70 predicted poor outcome. However, adults with IQ's over 100 were less successful than those with IQ's between 70 and 100 (Howlin, 2004).
- Adults with early language delays did as well as those with no language impairments (Howlin, 2003).

What factors keep people with ASD from  
Attaining a  
Quality of Life?

# Research findings re: universal deficits of ASD

- Attention Shifting
- Appraisal
- Cognitive set shifting
- Concept Formation
- Planning efficiency
- Deeper comprehension of meaning when reading
- Self-Awareness
- Self-Monitoring
- Self-Regulation
- Executive Functions
- Personal Episodic Memory
- Intersubjectivity (shared understanding/perspective taking)
- Declarative communication
- Initiating Joint Attention
- Communication repair
- Use and understanding of prosody and gesture
- Providing listeners with context
- Understanding the speaker's "direction" in conversation
- Understanding other's desires and intentions
- Emotional expression in appropriate context
- Responding to others distress
- Social Referencing
- Recognizing maintenance actions and rewards of friendship



# Emotion Sharing

Facial gazing provides a feeling of safety

Provides important information to the parent

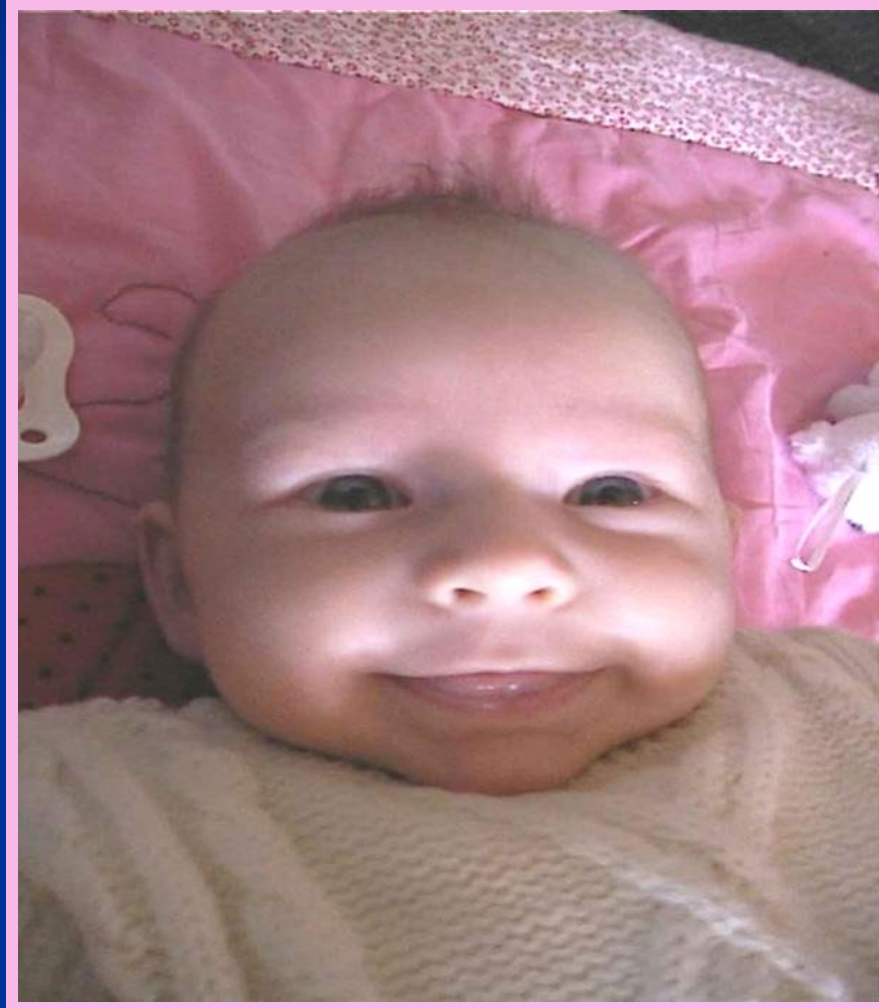
Leads to contagious, shared pleasure

Basis of self regulation





Joyful emotion sharing is addictive for both  
child and parent



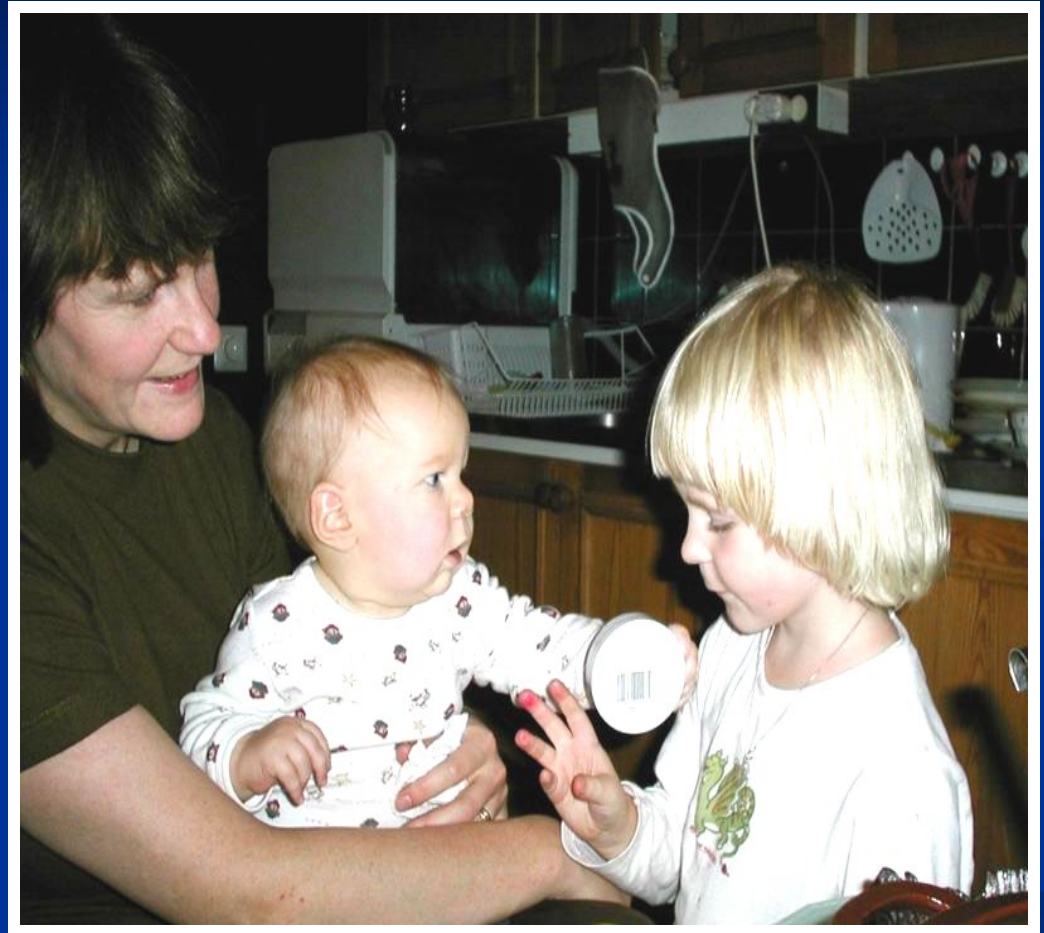
# Shared Laughter Becomes a Motivating Factor for Facial Gazing



By 4 months, babies become “excitement addicts,” initiating interaction to obtain increasingly greater doses of novelty.

10 months old

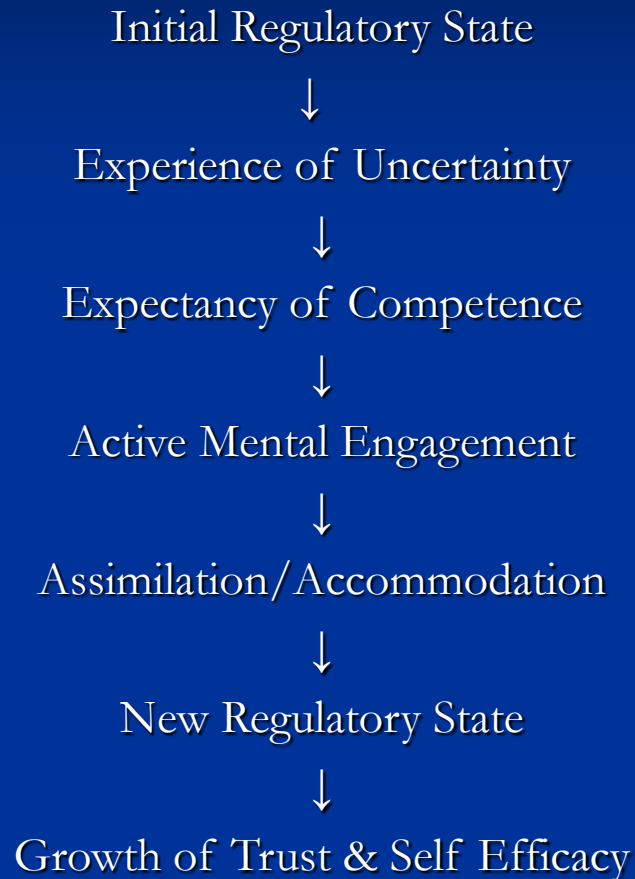
Curious & interested  
in other's reactions.



# Leaving the Pathway

- The ASD infant's innate drive for exploration, discovery and mental growth is thwarted
- Avoidance of environments and persons perceived as increasing uncertainty, without appraising the situation
- Cognitive capacity is channeled exclusively into acquisition based learning & performance

## NT Experience



## ASD Experience



# Research Findings Regarding Core Deficits of ASD

## Appraisal

Evaluating the significance of our environment on a moment-to-moment basis, to:

- Determine value and meaning
- Evaluate relevant contextual factors
- Shift and re-allocate attentional resources
- Distinguish between important and peripheral changes, based on current needs and context
- Determine degree of safety in uncertain situations

# Appraisal

- Without appraisal there is no way to make sense of our environment, except in a highly rigid, unchanging manner.
- Flexible appraisal allows moment-to-moment “best-fit” evaluation
- We are innately opportunistic creatures. We “troll” for opportunities to meet goals whenever we experience the safety to do so
- A **positive initial appraisal** is a “go” signal for opportunity trolling

# Research Findings Regarding Universal Deficits of ASD

## Episodic (Autobiographic) Memory

A representation of an event, strongly anchored by an emotional appraisal.

- Used to anticipate our future
- Organized around subjective meaning
- We create a meaningful representation
- Used for reflecting, reminiscing, preparing, motivating, persevering, analyzing, planning



# Functions of Episodic Memory

- Recalling positive outcomes that follow hard work
- Recalling prior recovery from difficulties & setbacks
- Reviewing past decisions & their impact
- Recounting shared positive experiences
- Recalling similar experiences for empathizing
- Making decisions based on intuition and “gut” feelings
- Reviewing to avoid making future mistakes
- Developing future goals
- Realistic appraisal of time and difficulties
- Realistic appraisal of strengths and limitations
- Integrating episodes into a more coherent sense of personal identity
- Determining whether you can trust someone

# Research Findings Regarding Universal Deficits of ASD

## Executive Functions

Ability to:

- Reflect on past experiences
- Project future outcomes based on current choices
- Evaluate the wisdom of past choices, and the relative wisdom of possible current and future choices
- Organize self

# Common Complaints

- He knows how to do this, I watched him do it yesterday!
- She learned it perfectly in her social skills class but doesn't use it anywhere else!
- He knows all the presidents and the dates they were in office, but he can't remember these simple instructions.
- He can tell me exactly what he should have done, so he must have made a deliberate choice to disobey!
- It's just manipulation because she's just fine until you ask her to do something she doesn't want to do, then she throws a fit!

# Research Findings Regarding Universal Deficits of ASD

## Self Regulation

- Child must be in a state where s/he is capable of taking in new information, absorbing it and making sense of it
- A well regulated child feels good, is ready to connect and engage with you
- A dysregulated child needs to become focused on the task of self-regulation before new learning can occur
- Significant gains in ability to self regulate occur by 2 years of age in NT children
- Results from structural maturation of right frontolimbic areas of the brain
- Represents emergence of complex and efficient delay and inhibition operations
- Is influenced by dyadic, affective filled verbal and joint attention processes

# Research Findings Regarding Universal Deficits of ASD

## Self Awareness

Awareness of self and other, coherent view of how one is unique.

- Self evaluation and analysis
- Monitor own subjective state
- Use productive self regulation strategies, regulate attention, behavior & emotion
- Take responsibility

# Research Findings Regarding Universal Deficits of ASD

## Creative Thinking

Ability to:

- Generalize
- Improvise
- Hypothesize
- Speculate
- Pretend
- Symbolize
- Summarize
- Synthesize
- Create
- Generate

# Research Findings Regarding Universal Deficits of ASD

## Intersubjectivity

**Inter**=Happening between people

**Subjective**=Our unique appraisals, perceptions, thoughts, feelings, memories, strategies, and dreams

The **Intersubjective Relationship** is the primary gateway to complex cognitive, communicative, emotional and social functioning

# Levels of Intersubjectivity

- **Primary Intersubjectivity-“Doing the Dance”**
  - First 9 months of life
  - Child learns to coordinate actions and emotions with you – to be an active participant in interactions
  - Child and parent engage in intense face-to-face interpersonal interactions.
  - Child registers when she is in tune with caregiver or out of tune = synchronization
  - Emerging ability to detect and respond to another persons emotional responses to things and events
  - The motivation to please is at the end of primary intersubjectivity.



# Levels of Intersubjectivity

- **Secondary Intersubjectivity-“Borrowing Perspectives”:**
  - 9 months-15 months
  - Child uses the parent as a guide, learns from and “borrows” parents perspective on life.
  - Objects & events can be a focus between people and can be communicated about (joint attention)
  - The relationship is a testing ground for finding ways of connecting thoughts, ideas and feelings
  - Child interested in/responsive to what another person does with things and feels toward things

# Levels of Intersubjectivity

- **Third-Level Intersubjectivity-“Understanding intentions”:**
  - 15 months-24 months
  - Child begins to discover they have their own mind, “intrasubjectivity.”
    - Focus on internal processes: intentions, perceptions, thinking, and emotional reactions to things.
    - Recognize own ideas may be different from yours
    - Begin to consider your reactions and how you might interpret their actions.
  - Child can now
    - Carry perspectives in their head
    - Begin to share their intentions with you so you do not misinterpret their actions.
    - Realize people make decisions prior to acting
    - Use awareness to understand how their actions impacts others. This allows them to regulate their behavior.
    - This is where intentionality, identification and communication repairs are observed (appraisal)

# Levels of Intersubjectivity

- **Fourth-Level Intersubjectivity-“Sharing minds”:**
  - 24-36 months
  - Child does not need a actual object to make a connection from your mind to my mind. You both can have a conversation about what is not there, what is in my mind and your mind, a sharing of what’s in our minds. This is when conversations, collaboration, and co-creation are observed.

# Levels of Intersubjectivity

- **Fifth-Level Intersubjectivity-“Reminiscing”:**
  - You and child can discuss what’s in your minds in relation to the past, present and future (episodic memory).
  - Reminiscing, reflection and planning together are observed.

# Research Findings Regarding Universal Deficits of ASD

## Declarative Communication

- 70-90% of how we communicate; approx 2% of how a person with ASD communicates
- **Right hemisphere-based**
  - Emotional intent processed & made
  - Context
  - Spatial relations
  - In NT—assymmetrically larger

# Imperative vs. Declarative

- Pick that up
- Which one do you want?
- What did you do today?
- What color is this?
- What comes next?
- Stop that
- Get dressed right now!
- Look at me
- Come over here
- Do you want to do play ball?
- What is the right answer?
- What do you call this?
- Say, “thank you”

- That was the best one!
- We’re walking faster
- I am so tired
- Look, there’s a giant spider
- Watch out!
- Here I come
- I hope it gets here soon
- I just remembered something
- Uh Oh!
- Yikes!
- Oh No!
- We can do it
- I’m not having fun

The form of communication is determined by  
the intention of the speaker

# Research Findings Regarding Universal Deficits of ASD

## Joint Attention

- Requires ability to:
  - read and process nonverbal cues
    - Eye contact
    - Facial expression
    - Tone of voice
- Results in an understanding of the mental state of another person

# Research Findings Regarding Universal Deficits of ASD

## Social Referencing

- The ability to socially monitor people in order to predict what they are going to do next
- Requires the ability to read affect, emotions, intentions, and understand the subtle reciprocities
- Entails understanding the private world of what people feel




# Research Findings Regarding Universal Deficits of ASD

## “Mindsight”

- The ability to create representations, in our own minds, of the elements of the subjective experiences of others
  - Intentions
  - Emotions
  - Focus of attention
  - Beliefs
  - Attitudes
  - Thoughts
  - Perceptions
  - Memories

# Goals of RDI



# The goal of remediation is providing an opportunity for Quality of Life

- Independent living
- Full, rewarding employment
- Close friendships
- Reciprocal family relationships
- Marriage

# Being successful depends on being able to...

- Be genuinely interested in others
- Read and respond to social cues
- Shift attention to the most important environmental information at any given moment
- Recall past experiences and derive personal meaning from them
- Recall other people's past experiences and infer what personal meaning they may have derived
- Project future outcomes based on current decisions
- Be motivated to continually learn all of the above

# RDI® Goals

- Restoring the competence of adults in their natural role as guides
- Igniting the child's primary motivation for challenge and discovery
- Developing children's competence through internalization of complex mental processes
- Normalizing life

# RDI® Goals

- Most children on the spectrum feel very unsuccessful in the face of change and challenge.
- Our goal is to create experiences and memories of success in the face of challenge, so that the child can develop a sense of personal and interpersonal competence.
- The parent is the guide. The child develops trust and seeks to learn from the parents' perspective and modeling, in order to gain competence.

# Principles of RDI

# RDI is parent based

- Primary work is between the parent and the child.
- Adult is in charge, responsible for guiding and pacing. Child is the apprentice.
- Healthy family functioning is essential. Time is set aside each day for guided interaction.



# Build Motivation

- Build motivation through interaction, not reward...competence and connection are the rewards!
- Teach functions before skills. Functions provide the purpose for developing the skill.
- Memory is more important than behavior in building motivation. Build motivation by creating strong, positive episodic memories through:
  - Celebrations (instead of praise)
  - Review
  - Photographs, memory books
  - Journaling

# Tools

# What is a successful activity?

- We want the child to think.
- The child needs to actively engage with his/her environment.
- This is not a stimulus-response engagement, this is an active “mental engagement.”
- Mental engagement means that the child is an active partner in solving the problem.

# Specific components of a successful activity:

1. **Frame** – parents make choices about the activities, tasks and materials that support engagement and competence.
2. **Spotlight** – child's attention is directed to a very specific moment (for experiencing and encoding of a memory), and to critical elements of the interaction or activity, in order to support appraisal, social referencing or some other objective.
3. **Appraisal**- the child must analyze the situation and determine what his/her role is.

# Specific components of a successful activity:

4. **Productive Uncertainty**- the child is offered a cognitive challenge.
5. **Scaffolding**- how much help does s/he need?
6. **Competence**- the child recalls the experience as a success.
7. **Transfer of responsibility to the child**- the child gradually assumes a greater role in “carrying the load” for generalization to other settings. Parent masks assistance, rather than correcting errors.

# Videos

# References

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- Siegel, D. (1999). *The developing mind*. NY: The Guilford Press.
- Schore, A. (1994). *Affect regulation and the origin of the self*. NJ: Lawrence Erlbaum Associates, Inc.

# Resources

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MindSource Center

Covington, WA (253) 859-3505 [carrie@mindsourcecenter.com](mailto:carrie@mindsourcecenter.com)

**Going to the Heart of Autism: 2-day workshop in  
Seattle**

**October 5-6, 2007** register at [www.rdiconnect.com](http://www.rdiconnect.com)

**Connections Center, Houston, TX** website: [www.rdiconnect.com](http://www.rdiconnect.com)

[Autism & Asperger's: Solving the Relationship Puzzle](#), Steven Gutstein, PhD

[Going to The Heart of Autism: RDI Training DVD](#), Steven Gutstein, PhD