

Minding the Future: Early Life Caregiving Influences Upon Brain, Cognitive, and Emotional Development

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Brains Are Built for the World We Experience



Art by Michaela Bruntraeger

How do Infants Learn the Conditions of their World?







Parental Well Being

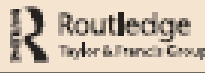


Child's Antenatal Environment



Child's Postnatal Environment

ATTACHMENT & HUMAN DEVELOPMENT, 2017
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Check for updates

The role of ethnicity and socioeconomic status in Southeast Asian mothers' parenting sensitivity

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ABSTRACT

Past research indicates that socioeconomic status (SES) accounts for differences in sensitivity across ethnic groups. However, comparatively little work has been conducted in Asia, with none examining whether ethnicity moderates the relation between SES and sensitivity. We assessed parenting behavior in 288 Singaporean citizen mothers of 6-month olds (153 Chinese, 108 Malay, 32 Indian) via the Maternal Behavioral Q-Set for video interactions. When entered into the same model, SES ($F(1,288) = 17.77, p < .001$), but not ethnicity, predicted maternal sensitivity ($F(2,288) = .542, p = .582$). However, this positive relation between SES and sensitivity was marginally moderated by ethnicity. SES significantly positively predicted sensitivity in Chinese, but not Malay dyads. Within Indian dyads, SES marginally positively predicted sensitivity only when permanent residents were included in analyses. We discuss the importance of culture on perceived SES-associated stress. However, because few university-educated Malays participated, we also consider whether university education, specifically, positively influences sensitivity.

ARTICLE HISTORY

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KEYWORDS

Maternal sensitivity; ethnicity; maternal education; income; Asian



Managing Challenges
Relationships
Attachment

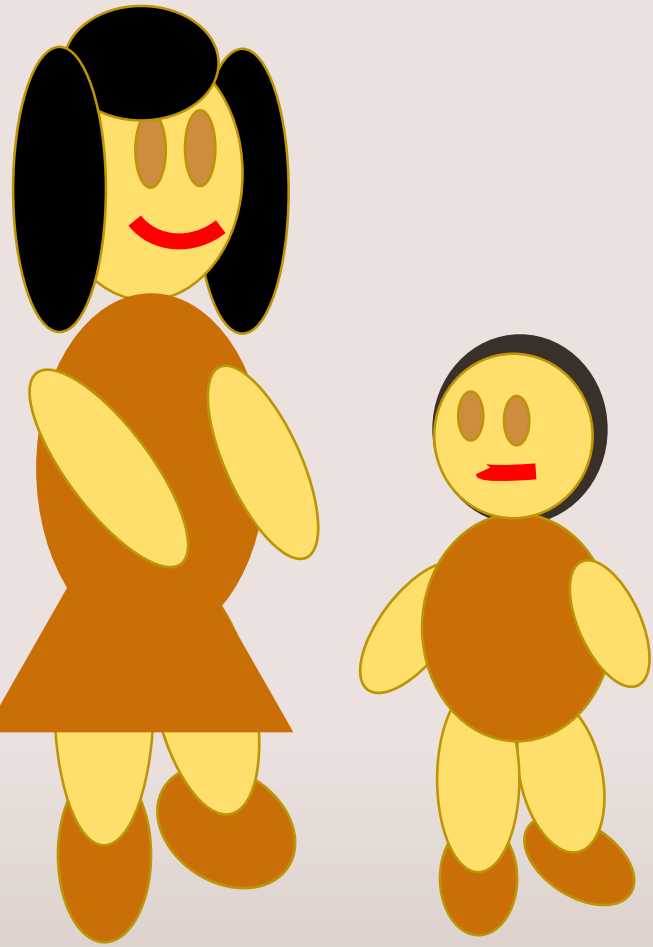
Physical, Economic, & Social Environment
(Resources, Stability, Security)

What is an “Attachment Relationship”?

- Unique and non-interchangeable affectional bond
- Involves a person who (can be expected to be) a figure of (minimal) support
- Can be “attached” even if the *quality* of the relationship is poor
- In Infancy *quality* is assessed via Mary Ainsworth’s Strange Situation
 - Separations & Reunions
 - Balance between Exploration and Attachment

Sensitive Parenting
Exploration & Seek Comfort
Secure Attachment

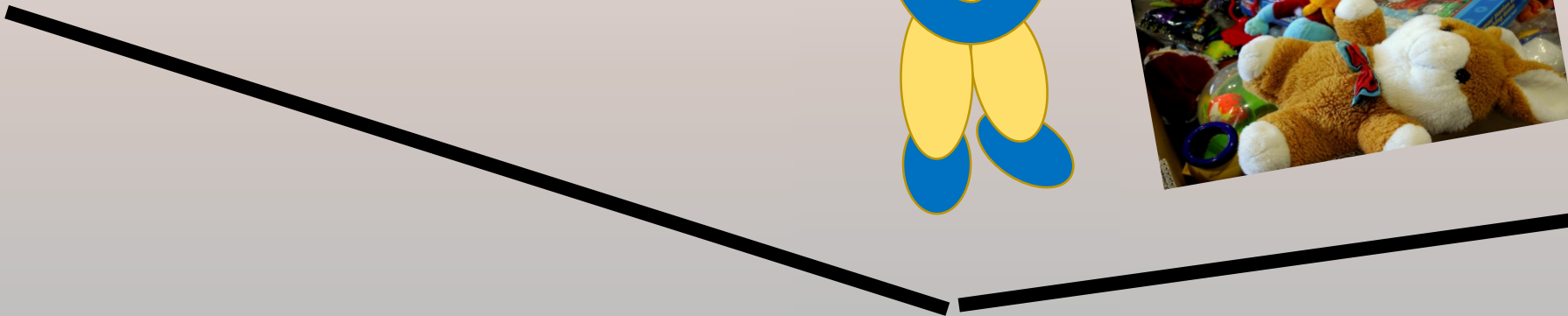




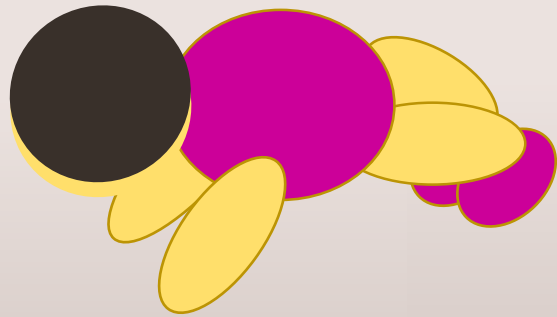
Inconsistent Parenting
Focus Continually on Parent
Not Fully Comforted
Resistant Attachment



Rejecting Parenting
Ignores Caregiver
Avoidant Attachment

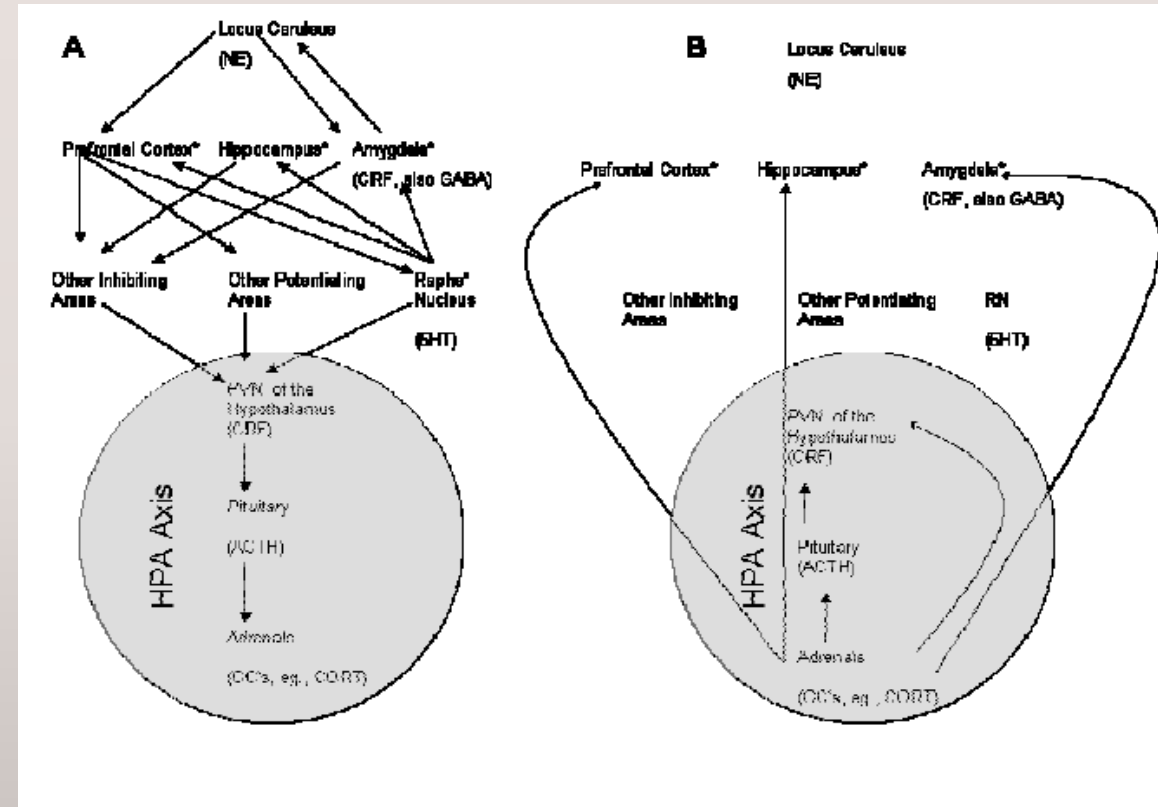


Fear while Parenting
Disruptions in Behavior
Disorganized Attachment



Sensitivity, Attachment, Stress & Fear

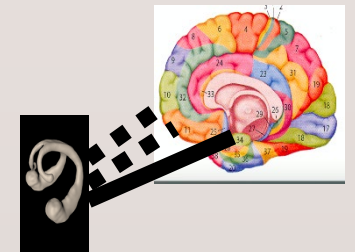
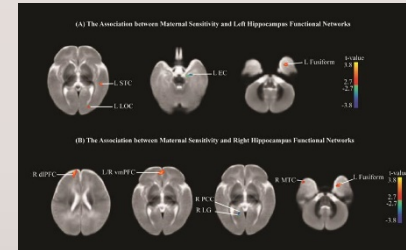
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Sensitivity, Attachment, & Neurodevelopment

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ORIGINAL ARTICLE

Maternal sensitivity, infant limbic structure volume and functional connectivity: a preliminary study

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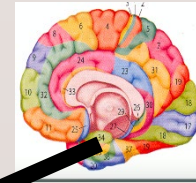
Mechanisms underlying the profound parental effects on cognitive, emotional and social development in humans remain poorly understood. Studies with nonhuman models suggest variations in parental care affect the limbic system, influential to learning, autobiography and emotional regulation. In some research, nonoptimal care relates to decreases in neurogenesis, although other work suggests early-postnatal social adversity accelerates the maturation of limbic structures associated with emotional learning. We explored whether maternal sensitivity predicts human limbic system development and functional connectivity patterns in a small sample of human infants. When infants were 6 months of age, 20 mother–infant dyads attended a laboratory-based observational session and the infants underwent neuroimaging at the same age. After considering age at imaging, household income and postnatal maternal anxiety, regression analyses demonstrated significant indirect associations between maternal sensitivity and bilateral hippocampal volume at six months, with the majority of associations between sensitivity and the amygdala demonstrating similar indirect, but not significant results. Moreover, functional analyses revealed direct associations between maternal sensitivity and connectivity between the hippocampus and areas important for emotional regulation and socio-emotional functioning. Sensitivity additionally predicted indirect associations between limbic structures and regions related to autobiographical memory. Our volumetric results are consistent with research indicating accelerated limbic development in response to early social adversity and in combination with our functional results, if replicated in a larger sample, may suggest that subtle, but important, variations in maternal care influence neuroanatomical trajectories important to future cognitive and emotional functioning.

Translational Psychiatry (2015) **5**, e668; doi:10.1038/tp.2015.133; published online 27 October 2015



Sensitivity, Attachment, & Cognitive Performance

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Greater caregiving risk, better infant memory performance?

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 Shaun Kok Yew Goh⁴ | Lit Wee Sim¹ | Yap Seng Chong^{1,5} |
 Jean-Francois Bureau² | Helen Chen^{6,7} | Anqi Qiu^{1,4,8}

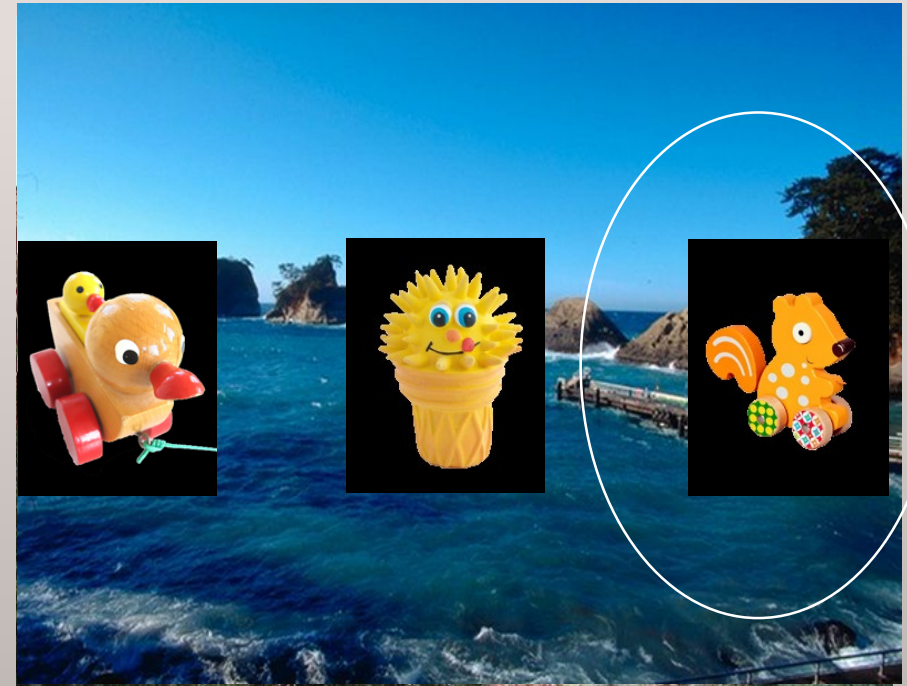
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Abstract
 Poor early life care often relates to cognitive difficulties. However, newer work suggests that in early life, adversity may associate with enhanced or accelerated neurodevelopment. We examine associations between postnatal caregiving risks (i.e., higher self-reported postnatal anxiety and lower observed maternal sensitivity) and infant relational memory (i.e., via deferred imitation and relational binding). Using subsamples of 67-101 infants (aged 433-477 post-conceptual days, or roughly five to seven months since birth) taking part in the GUSTO study, we found such postnatal caregiving risk significantly predicted "better" performance on a relational binding task following a brief delay, after Bonferroni adjustments. Subsequent analyses suggest that the association between memory and these risks may specifically be apparent among infants spending at least 50% of their waking hours in the presence of their mothers. Our findings who neuroimaging research concerning similar risk exposure and larger infant hippocampal volume, and likewise underscore the importance of considering developmental context in understanding early life experiences. With this in mind, these findings caution against the use of cognitive outcomes as indices of experienced risk.

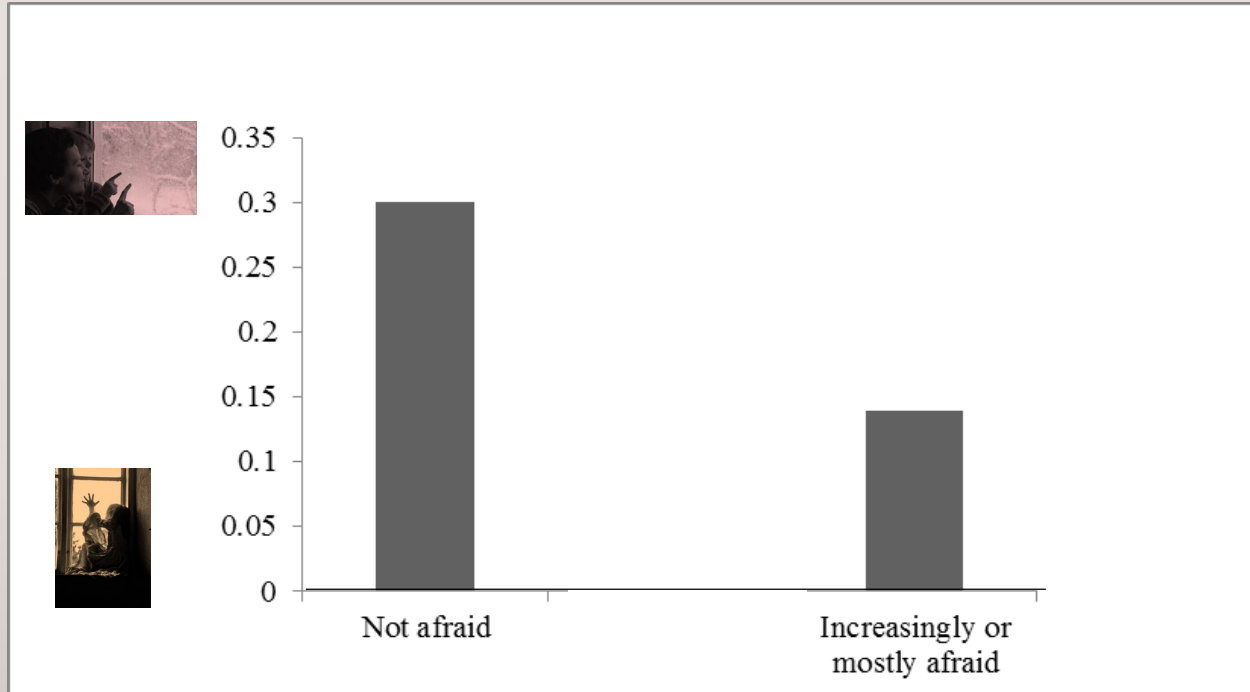
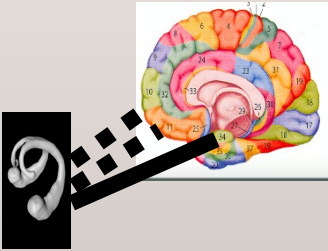
KEYWORDS
 accelerated development, adaptation to context, maternal anxiety, maternal sensitivity, relational memory

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Funding Information



Sensitivity & Fear Learning

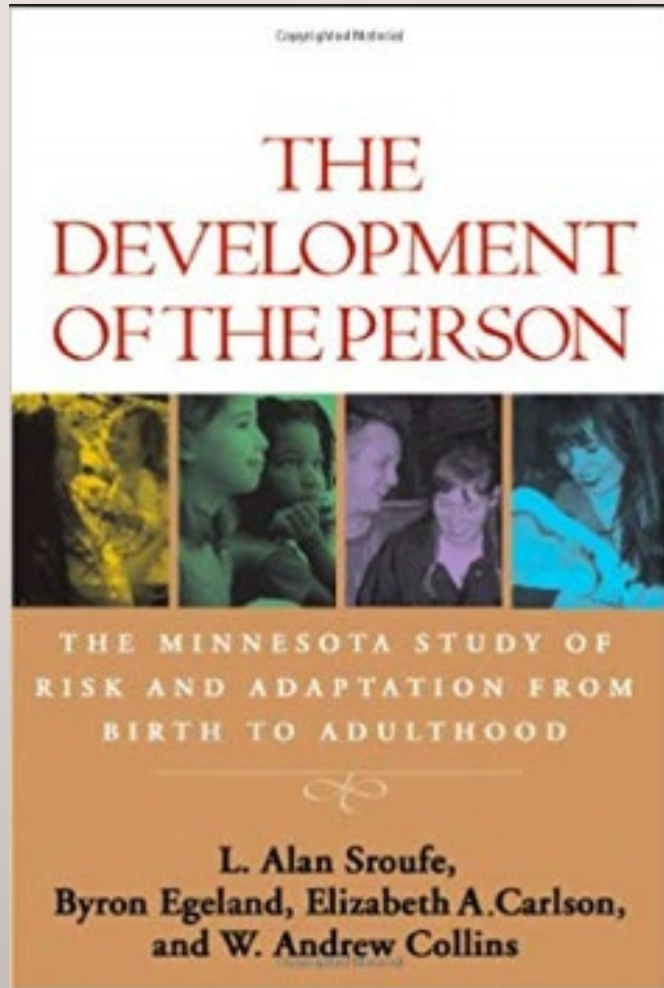


Tsotsi, S., Borelli, J.L., Abdulla, N. Binte, Tan, H.M., Sim, L.W., Sanmugam, S., Tan, K.H., Qiu, A., Chenc, H., Meaney, M., Rifkin-Graboi, A (Accepted) Maternal Sensitivity during Infancy Predicts Preschoolers' Fear-Elicited Startle Responses. *Attachment & Human Development*.



GUSTO is a collaborative study involving National University of Singapore (NUS), Singapore Institute for Clinical Sciences (SICS), National University Hospital (NUH). and Kandang Kerbau Women's and Children's Hospital (KKH).

Sensitivity, Attachment, & Classroom Behavior



- Teacher Rated (Q Sort) Ego-resilience (flexibility in self restraint), Sroufe 1983
- Observed self-management in the face of “social problems” with peers, Erez, 1987
- Teacher Rated Behavior Problems, Erickson et al, 1985
- Observed Bullying & Victimization (Troy & Sroufe, 1987)
- Teacher Ratings and Observed Dependency (Sroufe, 1983; Sroufe et al, 1983)
- Observed and Teacher Reported Teacher- preschooler relationship (Sroufe & Fleeson, 1988)- expectations, engagement, number of contacts

Groh, A.M., et al., *Attachment in the Early Life Course: Meta-Analytic Evidence for Its Role in Socioemotional Development*. Child Development Perspectives, 2017. **11**(1): p. 70-76.

“Adaptation in the Preschool Period: The Emergence of the Coherent Personality”

Chapter 7 of Sroufe, Egeland, Carlson, & Collins (2005) The Development of the Person

Theoretical Profiles

Avoidant (Rejecting Care)

- Hostile/mean, aggressive, antisocial (lying, stealing, devious)
- Emotionally insulated, asocial isolated
- Disconnected, spaced out, psychotic-like. May be oblivious or bizarre or just not know what’s going on

Resistant (Inconsistent Care)

- Overstimulated (hyper), easily frustrated, tense, or anxious
- Dependent, passive, weak, helpless, teacher oriented

Teachers’ Descriptors of Students

1	Mean to other children, kept things that didn’t belong to her. The most dishonest preschooler I have ever met. Mean lying– everything is hers.
2	Ideal kid, good looking, OK. Well-coordinated agile, competent. Very solid kid. Vulnerable to life changes, positive and negative.
3	Play with yellow truck. Trouble dealing with stress. Confusing- OK outwardly, yet sad and prone to self-recrimination/guilt. Falling down in dramatic scene- an actor.
4	Bright but impulsive and tense. Frustrated, easily in play situations, inconsiderate of children. Holding “gun” saying it is his.
5	Very mad, “I hate myself!” An unhappy and angry kid. Terrible self-concept. Angry, unhappy.
6	Happy rising star in the group– looked better all the time. Agile, coordinated, jumping around room. Shy, but gutsy with care group.
7	Spunky sleeper- more powerful than meets the eye. Competent, quiet, So funny, cute, elf-like.
8	So mean- lack of respect for humans. Angry, mean, playing with cars. Out of control, trying to do better.
9	“High”– difficult to settle and difficult to concentrate. High (hyper). An operator– popular and fast (very elusive).



What is “Sensitive Parenting”?

Dr. Mary Ainsworth

http://www.psychology.sunysb.edu/attachment/measures/content/ainsworth_scales.html

- **Sensitivity vs Insensitivity**

- **Awareness, Accurate Interpretation, Appropriate and Prompt Response**

- Cooperation vs. Interference

- Type (physical/verbal) and Quantity of Interruption in Activity

- Physical and Psychological Availability vs. Ignoring and Neglecting

- Active acknowledge and response

- Acceptance vs. Rejection of the Baby's Needs

- Acceptance of positive and negative emotions and both good and bad behavior

Sensitivity Scored via the Mini for Video MBQS Maternal Behavior Q Sort

- Maternal Behavior Q Sort (MBQS) developed by David Pederson, Greg Moran, and Sandi Bento, <https://works.bepress.com/gregmoran/50>
- 25 Descriptors of Behavior
- Forced Sort into 5 Groups: Most to Least Like Observed Behavior
- Correlated with Scores from an “Ideally Sensitive” Mother

What's "Ideally Sensitive" to You?

- Work in Groups
- Think of the MOST sensitive caregiver in interaction with a baby or young toddler
- Divide the Cards into Piles Reflecting Most Similar, Least Similar, and Unsure
- Further Divide the Cards Until You Create 5 groups of 5 cards
 - 5 = very similar, 4 = similar, 3 = not observed; somewhat similar/unsimilar; 2 = unsimilar; 1 very unsimilar

Sensitivity vs Insensitivity

Awareness, Accurate Interpretation, Appropriate and Prompt Response

Cooperation vs. Interference

Type (physical/verbal) and Quantity of Interruption in Activity

Physical and Psychological Availability vs. Ignoring and Neglecting

Active acknowledge and response

Acceptance vs. Rejection of the Baby's Needs

Acceptance of positive and negative emotions and both good and bad behavior



The Maternal Behavior Q Sort (MBQS) and A “Prototypically” Sensitive Mother

(developed by David Pederson, Greg Moran, and Sandi Bento, <https://works.bepress.com/gregmoran/50/>)

Item	Score	Item	Score
27. Responds to B's distress and non-distress signals even when engaged in some other activity such as having a conversation with visitor	9	78. Plays social games with B.	6
34. Interactions revolve around B's tempo and current state	9	30. Interactions with B characterized by active physical manipulations	5
71. Builds on the focus of B's attention	9	11. Repeats words carefully and slowly to B as if teaching meaning or labelling an activity or object.	4
2. Monitors B's activities during visit.	8	41. Interactions with B are object oriented (e.g. with toys, food)	4
44. Realistic expectations regarding B's self-control of affect	8	79. Distressed by B's demands.	4
55. Able to accept B's behaviour even if it is not consistent with her wishes	8	84. Display of affect does not match B's display of affect (e.g., smiles when B is distressed) (neg)	3
65. Responds to B's signals	8	1. Provides B with little opportunity to contribute to the interaction	2
72. Notices when B smiles and vocalizes	8	60. Scolds or criticizes B	2
24. Arranges her location so she can perceive B's signals	7	87. Actively opposes B's wishes	2
45. Praises B	7	17. Content and pace of interaction set by M rather than according to B's responses.	1
10. Speaks to B directly.	6	22. Appears to tune out and not notice bids for attention.	1
43. Is animated when interacting with B	6	32. Non-synchronous interactions with B, i.e., the timing of M's behaviour out of phase with B's behaviour	1
48. Points to and identifies interesting things in B's environment	6		

Sensitivity across Development

Sensitivity vs Insensitivity

Awareness, Accurate Interpretation, Appropriate and Prompt Response

Cooperation vs. Interference

Type (physical/verbal) and Quantity of Interruption in Activity

Physical and Psychological Availability vs. Ignoring and Neglecting

Active acknowledge and response

Acceptance vs. Rejection of the Baby's Needs

Acceptance of positive and negative emotions and both good and bad behavior

- What has changed between infancy and preschool?

The Preschool MBQS

Awareness, Accurate Interpretation, *Appropriate and Prompt Response

* Increasing autonomy and cognitive/emotional development, but not yet mature

Item	Item
<p>Responds appropriately to signals of distress or frustration.</p> <p>Parent skilful in dividing attention between child and competing demands.</p> <p>Realistic expectations regarding C's self-control of affect.</p> <p>Is comfortable in close contact or in physical proximity.</p> <p>Offers acceptable alternative to divert attention from inappropriate activity or emotional expression.</p> <p>Parent conveys information which C understands. Parent may alter tone of voice or speech to C's level to ensure comprehension</p> <p>Praises C, parent takes advantage of opportunities for positive evaluation.</p> <p>Parent delights in C; enjoyment is obvious and continual.</p> <p>Structures activities to provide opportunities for C to be successful and/or satisfied.</p> <p>Well resolved interaction with C- interaction ends when C is satisfied.</p> <p>Accepts C's initiatives.</p> <p>Content and pace of interactions are set by parent rather than according to the C's responses.</p> <p>Acknowledges C's positive emotions (i.e., joy, excitement, contentment)</p>	<p>Builds on the focus of C's attention.</p> <p>Makes verbal demands, commands of C.</p> <p>Provides C with little opportunity to contribute to the interaction</p> <p>Parent ignores bids, requests for assistance or attention</p> <p>Responds with flat affect, when interacting with C.</p> <p>Non-synchronous interactions with C i.e. the timing of parent's behavior out of phase with C's behavior.</p> <p>Parent mislabels C's affect.</p> <p>Awkward and ill at ease during interactions with C</p> <p>Unaware of or indifferent to C's distress or frustration</p> <p>Annoyed, irritated or impatient with C.</p> <p>Emphasizes parent's needs and wishes.</p> <p>Parent is inflexible when interacting with C.</p>

Programs to Enhance Sensitive Caregiving

Psychological Bulletin
2003, Vol. 129, No. 2, 195–215

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Less Is More: Meta-Analyses of Sensitivity and Attachment Interventions in Early Childhood

Marian J. Bakermans-Kranenburg, Marinus H. van IJzendoorn, and Femmie Juffer
Leiden University

Is early preventive intervention effective in enhancing parental sensitivity and infant attachment security, and if so, what type of intervention is most successful? Seventy studies were traced, producing 88 intervention effects on sensitivity ($n = 7,636$) and/or attachment ($n = 1,503$). Randomized interventions appeared rather effective in changing insensitive parenting ($d = 0.33$) and infant attachment insecurity ($d = 0.20$). The most effective interventions used a moderate number of sessions and a clear-cut behavioral focus in families with, as well as without, multiple problems. Interventions that were more effective in enhancing parental sensitivity were also more effective in enhancing attachment security, which supports the notion of a causal role of sensitivity in shaping attachment.

Key Elements of Successful Interventions

- Focused on sensitivity
- Less than 16 sessions
- Video Feedback
- Six Months of Age or Older

Attachment and Biobehavioral Catch-Up (ABC)

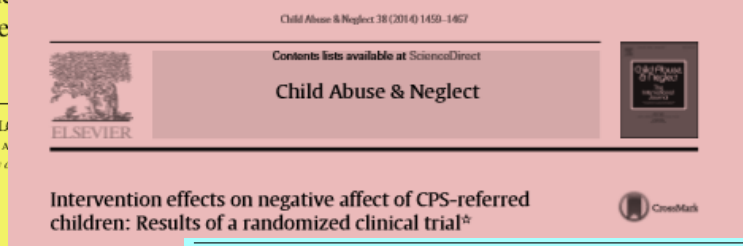
- 10 Sessions
- Live Feedback
- Video Feedback
- Nurturance, Following Child's Lead, Reducing Frightening Behavior, Limiting "Voices from the Past"
- Compared with "DEF" (Developmental Education for Families)



Effects of an attachment-based intervention on the cortisol production of infants and toddlers in foster care

MARY DOZIER,^a ELIZABETH PELLI,^a JEAN-PHILIPPE LAURENCEAU,^a AND

Abstract
Studies with nonhuman primates and rodents, as well as humans, are often associated with changes in the basis of these findings. This paper presents findings from a relational intervention (Attachment and Biobehavioral Catch-up) was intended to enhance children's (Developmental Education for Families) was implemented with children who had never been in foster care: was at the lab, and 15 and 30 min following the Strange Situation. Differences in initial values and change between control and comparison group children showed lower in considering arrival at lab as initial values ($p < .05$) suggest that the ABC intervention is effective in children who have not experienced early adversity.

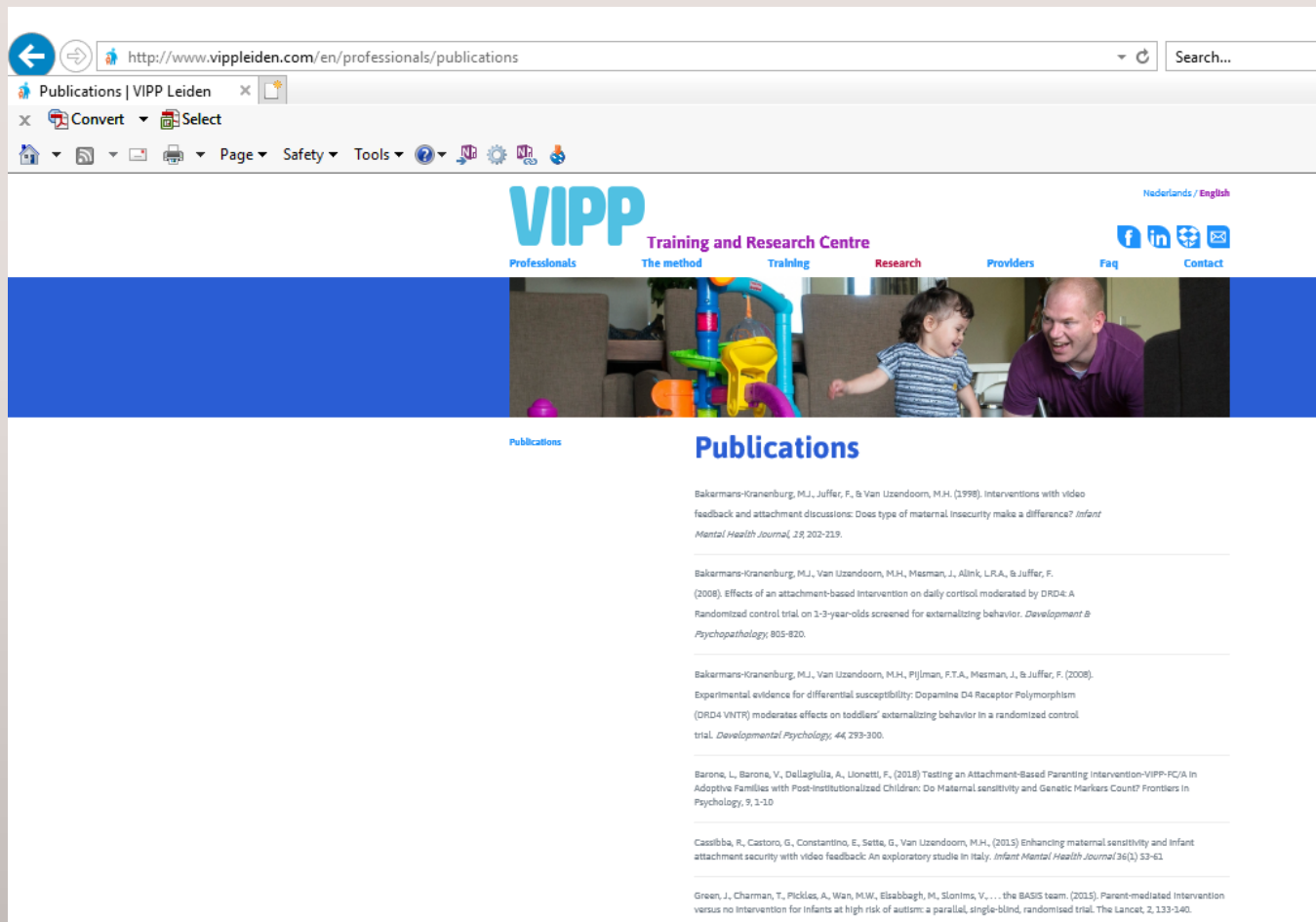


Effects of the ABC Intervention on Foster Children's Receptive Vocabulary: Follow-Up Results From a Randomized Clinical Trial

Kristin Bernard¹, Amy Hyeon Lee², and Mary Dozier³

Abstract
Children with histories of maltreatment and disruptions in care are at elevated risk for impairments in early language development, which contribute to difficulties in other developmental domains across childhood. Given research demonstrating associations between parent responsiveness and children's early language development, we examined whether a parenting intervention administered in infancy improved preschool receptive language skills in children involved with the child welfare system. Attachment and Biobehavioral Catch-up (ABC) is a 10-session intervention that aims to enhance parent-child interactions. The follow-up results of this randomized clinical trial demonstrated that infants who received the ABC intervention ($n = 24$) scored significantly higher on a test of receptive vocabulary at age 36 months than infants who received a control intervention ($n = 28$). These results provide evidence of the critical role of parental responsiveness in supporting optimal language development among young children with histories of child welfare involvement.

Video Feedback Intervention to Promote Positive Parenting and Sensitive Discipline (VIPPP)



The screenshot shows a web browser displaying the website for the VIPPP Training and Research Centre. The URL is <http://www.vippleiden.com/en/professionals/publications>. The page features a navigation menu with links for Professionals, The method, Training, Research, Providers, Faq, and Contact. A central banner image shows a man and a young child interacting with toys. Below the banner, the 'Publications' section lists several research articles with their titles and authors.

VIPPP Training and Research Centre
Nederlands / English
Professionals The method Training Research Providers Faq Contact

Publications

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Attachment-Based Intervention for Enhancing Sensitive Discipline in Mothers of 1- to 3-Year-Old Children at Risk for Externalizing Behavior Problems: A Randomized Controlled Trial

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The home-based intervention program Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPPP-SD) was tested in a randomized controlled trial with 237 families screened for their 1- to 3-year-old children's relatively high scores on externalizing behavior. VIPPP-SD, based on attachment theory and coercion theory, focuses on mirroring and discussing actual parent-child interactions in six 1.5-hr sessions with individual families at home. VIPPP-SD proved to be effective in enhancing maternal attitudes toward sensitivity and sensitive discipline and in promoting sensitive discipline interactions in the intervention group as compared with the control group. Moreover, in families with more marital discord and in families with more daily hassles, the intervention resulted in a decrease of overactive problem behaviors in the children. The authors conclude that VIPPP-SD should become an important module in attachment-based interventions.

Keywords: attachment, intervention, sensitivity, discipline, externalizing problems

Supplemental data: <http://dx.doi.org/10.1037/0022-006X.74.6.994.supp>

In 7 Sessions of the VIPP

- Speaking for the Child
 - Awareness of Signals
- Putting behavior in context (general information about child development)
 - Acceptance
- “Sensitivity Chains”
 - Contingent Responsiveness
- Sensitive Discipline
 - Cooperation vs Interference
- Reinforcement of Relationship
 - “You are so important to him/her”

What is Highlighted During Video Review

- Normal Child Development
- Exploration
- Attachment
- Empathy for Parents and Children
- “Sensitivity Chains”
- Sensitive Discipline

Having Children Follow The Rules

Beforehand

- Spend Time Together Having Fun
- Give Compliments (Double Up!)
- Praise Positive Behavior
- Anticipate Difficult Situations

During

- Announce the Change
- Give Instructions
- “In It” Together
- Active Role
- Explain Why
- Distraction & Alternatives
- What’s Next?
- Sensitive Time Out

Participant's feedback

I enjoyed the visits, and I think the VIPP program would be very useful in Singapore. Sometimes I see neighbors caning their children, and it just makes me so emotional. People think “sensitive parenting” means just letting your children do what they want— but that’s not what it is. VIPP teaches other ways. You still have to be the parent, but you see ways to teach them to listen and to support them that don’t use punishment. That way when they are older they feel secure and things become easier in your relationship.

VIPP-CC (Child Care)

Early Childhood Research Quarterly 42 (2018) 93–104



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Video-feedback intervention in center-based child care: A randomized controlled trial



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ARTICLE INFO

Keywords:

Center-based child care
Attachment-based intervention
Professional caregiver training
Randomized controlled trial

ABSTRACT

In the current study we aimed to improve center-based child care quality with an attachment-based program: The Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline for Child Care (VIPP-CC). Professional caregivers ($N = 64$) from child care centers in urban areas in the Netherlands participated in our pretest-posttest randomized controlled trial. The VIPP-CC was effective for increased observed sensitive responsiveness in the group setting of the professional caregiver and led to a more positive attitude towards caregiving and limit setting. Post hoc analyses revealed that the intervention effect was apparent for caregiver sensitive responsiveness in structured play situations. The VIPP approach can now be expanded from the family setting to out-of-home group settings with larger groups of children and professional caregivers. This is a promising conclusion for millions of children enrolled in center child care from a very young age.

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DOI 10.1007/s10566-015-9344-8



ORIGINAL PAPER

Randomized Video-Feedback Intervention in Home-Based Childcare: Improvement of Children's Wellbeing Dependent on Time Spent with Trusted Caregiver

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Marinus H. van IJzendoorn¹ · Mariëlle Linting¹

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Abstract

Background The childcare environment offers a wide array of developmental opportunities for children. Providing children with a feeling of security to explore this environment is one of the most fundamental goals of childcare.

Objective In the current study the effectiveness of Video-feedback Intervention to promote Positive Parenting-Child Care (VIPP-CC) was tested on children's wellbeing in home-based childcare in a randomized controlled trial.

Methods Forty-seven children and their caregivers were randomly assigned to the intervention group or control group. Children's wellbeing, caregiver sensitivity, and global childcare quality were observed during a pretest and a posttest.

Results We did not find an overall intervention effect on child wellbeing, but a significant interaction effect with months spent with a trusted caregiver was present. Children who were less familiar with the caregiver showed an increase in wellbeing scores in both the intervention and control group, but for the group of children who were more familiar with the caregiver, wellbeing increased only in the intervention group.

Conclusions Although there was no overall effect of the VIPP-CC on children's wellbeing, the VIPP-CC seems effective in children who have been cared for by the same trusted caregiver for a longer period of time.

So What Can You Do with This Knowledge?

Remember We Build Brains for
the Environment We Expect



Art by Michaela Bruntraeger

The Classroom is Only One World



Blind monks examining an elephant, an ukiyo-e
print by Hanabusa Itcho (1652-1724)

So What Can You Do with This Knowledge?(2)

Build on Children's Strengths

Support Positive Relationships

Beyond Risk and Protective Factors: An Adaptation-Based Approach to Resilience

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Abstract

How does repeated or chronic childhood adversity shape social and cognitive abilities? According to the prevailing *deficit model*, children from high-stress backgrounds are at risk for impairments in learning and behavior, and the intervention goal is to prevent, reduce, or repair the damage. Missing from this deficit approach is an attempt to leverage the unique strengths and abilities that develop in response to high-stress environments. Evolutionary-developmental models emphasize the coherent, functional changes that occur in response to stress over the life course. Research in birds, rodents, and humans suggests that developmental exposures to stress can improve forms of attention, perception, learning, memory, and problem solving that are ecologically relevant in harsh-unpredictable environments (as per the *specialization hypothesis*). Many of these skills and abilities, moreover, are primarily manifest in currently stressful contexts where they would provide the greatest fitness-relevant advantages (as per the *sensitization hypothesis*). This perspective supports an alternative adaptation-based approach to resilience that converges on a central question: "What are the attention, learning, memory, problem-solving, and decision-making strategies that are enhanced through exposures to childhood adversity?" At an applied level, this approach focuses on how we can work with, rather than against, these strengths to promote success in education, employment, and civic life.

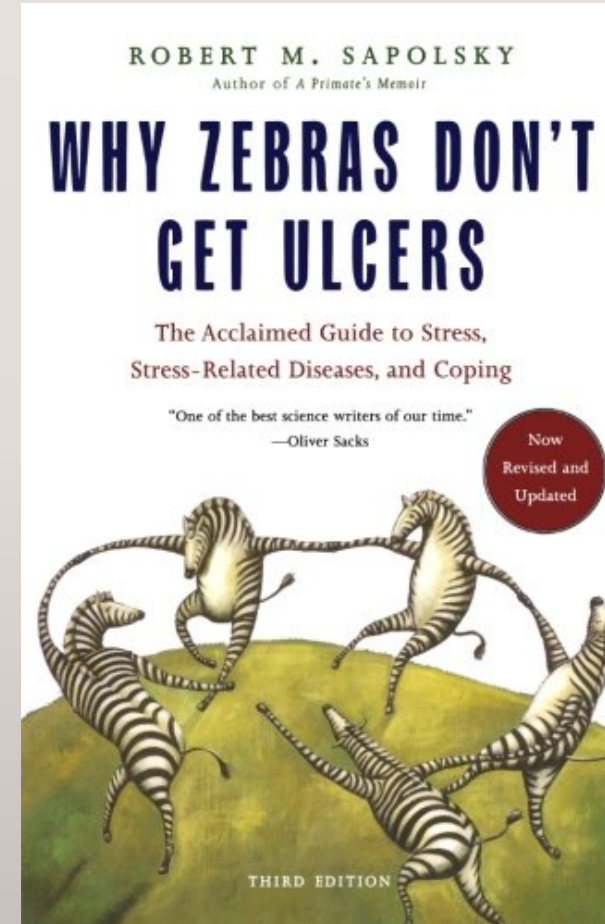
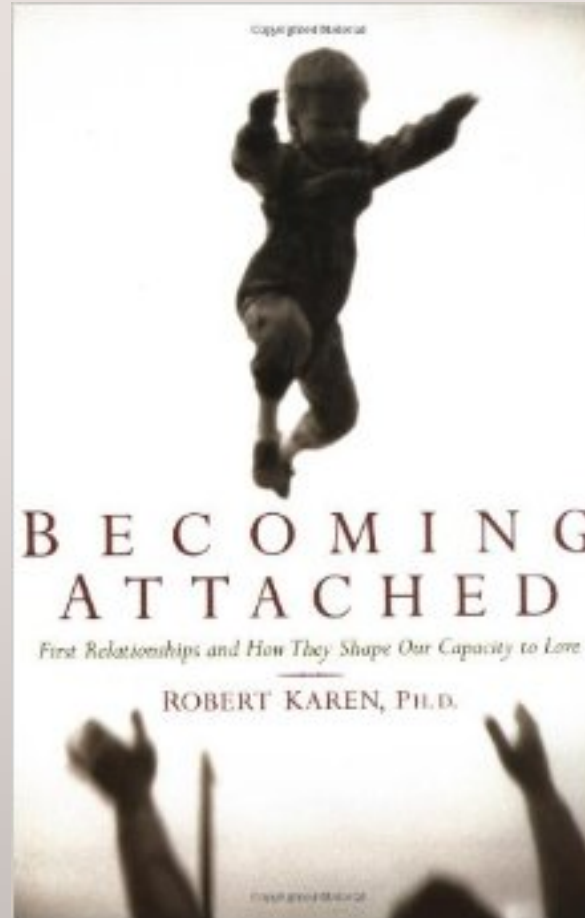
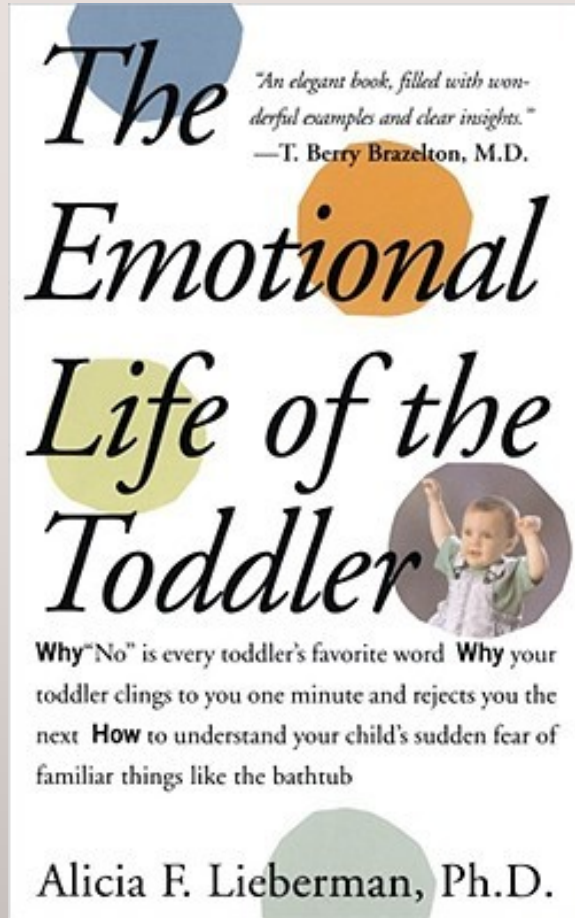
Keywords

adaptation, animal behavior, cognitive abilities, developmental plasticity, early-life stress, evolutionary-developmental psychology, intervention, life history theory, phenotypic plasticity, resilience

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Read Up & Be a Resource for Interested Parents



Consider Relational Savoring

The Practice of Relational Savoring

Jessica Borelli, Ph.D.

Relational Savoring involves deeply reflecting on a moment of close connection between you and your child. Relational savoring has been shown to improve parents' mood and to enhance their satisfaction and closeness with their relationship with their children. This handout provides some simple instructions you can use to engage in the practice of relational savoring.

First, you will need to select a memory that you would like to savor. Pick a memory where you felt close or in sync with your child. You may wish to savor a memory of a time when you found joy in helping your child grow, or a time when your child needed you and you were there for him/her. It may be a time when you felt like you comforted, soothed, protected, or supported your child. Feel free to choose something that you felt was a milestone or something simple that happens on a daily basis.

Using the memory you have chosen, follow these steps:

1. Bring the memory to mind at a time when you are feeling calm and are able to reflect deeply on it.
2. Recall all of the details of the experience – Where were you? What were you wearing? What was your child wearing? What was the air like? What smells did you notice? What was the temperature like? What happened in that moment that made it special – what did your child say or do? What did you say or do? What about the connection between you and your child allowed that special moment to happen?
3. Next turn your attention to how you felt at the time. What kinds of things were you feeling in your body? Were you feeling happy and excited, or were you deeply calm and relaxed? Think about where in your body you felt these emotions and try to feel them again.
4. Then try to recall what your thoughts were at the time the memory occurred. For example, were you thinking, "My child really needs me right now. My child feels really close to me." Or were you thinking "I feel so close to my child at this moment. I feel comfortable being my child's parent." Then take a moment to reflect upon what your thoughts are about the memory now.
5. Finally, turn your focus to the future. Focus on how close you felt to your child at the time the memory occurred. How will the bond that you have together affect your relationship in the future? What positive things can you imagine happening as a result of your bond to one another?

In order to have memories to savor, you will find that you need to pay attention to these moments of close connection as they occur between you and your child throughout the day, which requires being emotionally present in the moment.

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Support Research

SPACE
(SINGAPORE PARENTING AND COGNITION IN EARLY CHILDHOOD)
PARTICIPANT RECRUITMENT

CHILD

- Perform pen & paper / computerised tests
- Doing activities and playing games with parent

PARENT

- Take part in parenting questionnaires and pen & paper / computerised tests
- Take part in activities and games with your child

- 1 Singapore citizen/ Permanent Resident
- 2 4-5 years old
- 3 Right-handed
- 4 Children who are predominantly exposed to both English and Chinese language
- 5 No known neurological/ psychological disorder

3 Sessions over 2 Years
At a convenient time

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OR
Home/ School Visits
(if applicable)

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8755 2776

Principal Investigator:
Dr Rebecca Bull
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Parental consent and Child assent
are required for participation

NTU-IRB approval number:
IRB-2018-04-015

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- We are recruiting families of preschoolers for a longitudinal study
 - sensitive parenting and the home environment
 - preschool working memory
 - mathematical outcomes
 - opportunities to take part in MRI
- Please take some SPACE study flyers
- Add your name to the list if you want to learn more about this study