Cuddling, Consciousness, and Cognition: The Significance of Emotional Engagement on Development and Learning

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The first relationship—mutual regulation
“One and one make not two but one.”

~~~Ulanov
MIND

...an embodied and relational process that regulates the flow of energy and information
the embodied neural *mechanism* that shapes the flow of energy and information
RELATIONSHIPS

...the patterns of interaction between two or more people that involve the sharing of energy and information flow
Round and round the garden
Goes the teddy bear
One step two step
Tickle under there

From Becky Bailey’s *I Love You Rituals*
Viewing faces with direct gaze influences how infants process and react to them.
It’s about what we say AND how we say it.
All higher mental functions are internalized social relationships.

~ ~ ~Lev Vygotsky
**SEAL**

*Stimulus* (any sensory provocation)

\[ \Downarrow \]

*Emotion* (positive or negative)

\[ \Downarrow \]

*Attention* (positive emotions drive executive functions—negative emotions drive survival)

\[ \Downarrow \]

*Learning* (the response to the attentional variant)

(adapted from Robert Sylwester’s *A Biological Brain in a Cultural Classroom*)
Twinkle twinkle little star  
What a wonderful child you are  
With big bright eyes  
And nice round cheeks  
A talented person from head to feet  
Twinkle twinkle little star  
What a wonderful child you are

From Becky Bailey’s I Love You Rituals
- Oxytocin
- Serotonin
- Dopamine
- Cortisol
Implicit Memory
Explicit Memory
Nature attends closely to the details.

~~~Jerome Kagan
Epigenesis . . .

the process in which experience alters the regulation of gene expression
There was a wonderful woman
Who lived in a shoe
She had many children
And she knew exactly what to do
She held them she rocked them
She tucked them in bed
I love you, I love you
Is what she said

From Becky Bailey’s I Love You Rituals
Secure Attachment
Avoidant Attachment
Anxious Attachment
Disorganized Attachment
Nothing without joy!!!

***Loris Malaguzzi