

Aiding Independence

Presented by Julia Volkman
Montessori Schools of Massachusetts Annual Conference
January, 2018

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Workshop Plan

1. A brief neuroscientific framework for aiding independence
2. The role of the adult
 - Supporting what is skillful
 - Redirecting what is unskillful
3. Lesson presentations and practice
 - Grace and courtesy
 - Scaffolding
 - Preliminary exercises
4. Redirection strategies

Can someone be the **time keeper**? Let me know when there is 20 minutes left and then 5 minutes left

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My family



A few of my MANY siblings, nieces, and cousins



Dante
12-year-old animal lover



Devin:
Musician & Social Media
Marketing Prof.



Adam
AIC Biochem Professor

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Montessori Mentor / Coach



Publisher

Maitri Learning www.maitrilearning.com



sunflowers



sunflowers



flower



stamens

Montessori cards and books that inspire great work

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Teaching Fellow: Neuroscience of Learning

I added this in so you 'd think I'm smart

We have offered this course in three formats:

- In-Cambridge only
- In-Cambridge / on-line hybrid
- Online-only



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McCabe & Castel, 2008

You?

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First, some biology

Postural Orthostatic Tachycardia Syndrome (POTS)

The diagram shows three human silhouettes illustrating the physiological response to standing in POTS. The first silhouette is sitting, with the text 'Resting Heart Rate Normal' above it and 'Veins Dilated' below it. The second silhouette is standing normally, with 'Veins Constrict' below it. The third silhouette is standing with POTS, with 'Veins do not Constrict' below it. A red oval highlights the brain area with the text 'Cerebral hypoperfusion'. To the right of the standing POTS figure, it says 'Standing Heart Rate WAY too fast'. A small number '7' is in the bottom left corner.

KEY POINT:

The brain is part of our body.
It does not work well if our biological needs
are not met.

A photograph of a young boy in a red shirt sitting at a desk in a classroom. He has his eyes closed and is resting his head on his hand, appearing to be tired or unwell. Other students are visible in the background.

It's not always obvious that someone has a physiologic challenge.

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I have POTS, a type of Dysautonomia



DYSAUTONOMIA Awareness

au'to'nom'ic ner'vous sys'tem (ANS) n.

- 1. regulates basic organ functions such as blood pressure, heart rate, breathing
- 2. necessary for homeostasis

dys'au'to'no'mia n.

- 1. malfunctioning of the ANS, causing symptoms including, but not limited to: chest pain, dangerously low blood pressure, seizures, difficulty breathing, chronic fatigue, syncope, nausea, chronic pain
- 2. can cause: quality of life analogous to chronic heart failure, medical shock, and death

This is me →



Why did I tell you this??????

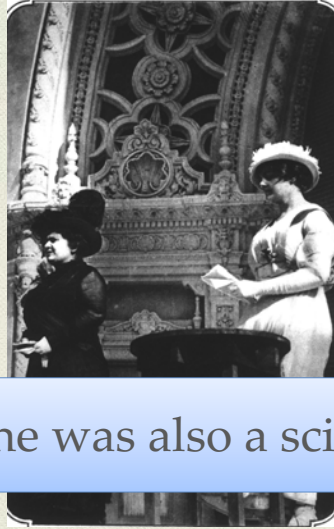
KEY POINT:

Learning begins with relationships.

Now that we're friends, our work can begin



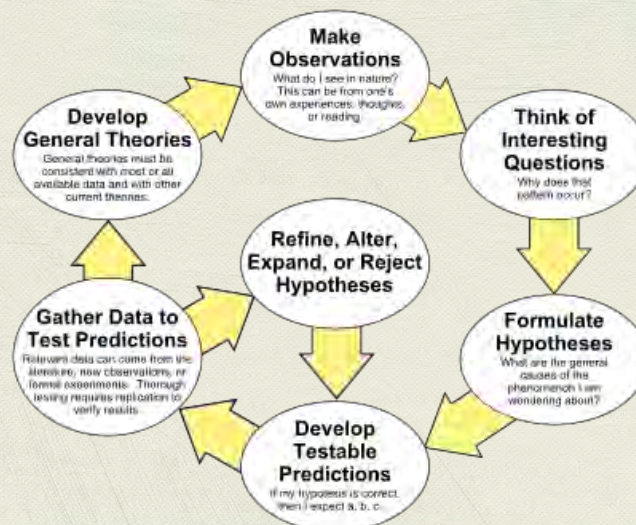
Maria Montessori: A Radical Activist for the Rights of the Child



But she was also a scientist!

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The Montessori Method IS the Scientific Method

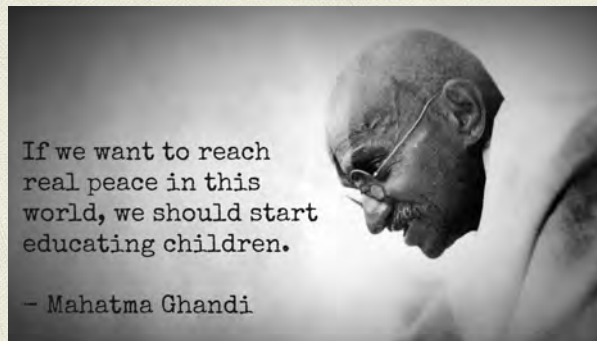


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https://en.wikipedia.org/wiki/Scientific_method

Scientific education IS peace education

- Scientific education develops the logical mind.
- War is illogical.



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We need to use scientific language, NOT
Montessori speak if we want our 'peace'
movement to have the greatest reach.

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Aiding Independence helps children develop strong brain architecture

Practice makes permanent

- ◆ *Only the child* can achieve self-construction; the adult merely assists
- ◆ Skillful self-construction requires freedom within limits
- ◆ The *child is creating his personality*; Temperament changes over time
- ◆ What we perceive as 'help' can actually become an interruption which impedes the child's growth



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Sayal et al., 2014

The child does the work!
Adults are support staff.



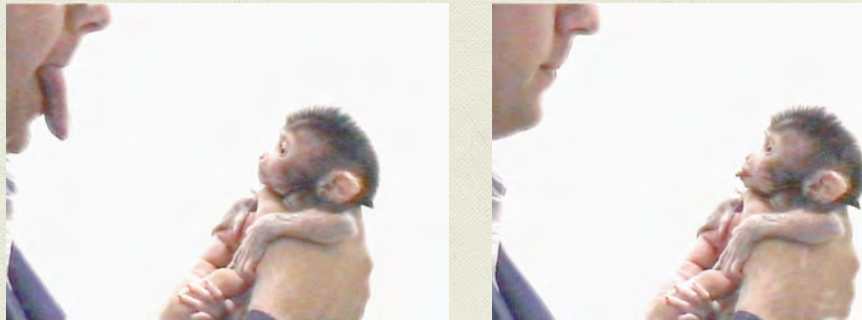
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The Role of the Adult

- ◆ Be a **role model** of gracious, compassionate, courteous behavior
- ◆ Recognize/understand what the child is doing so we can:
 - ◆ **Support what is skillful**
 - ◆ Offer lessons/challenge/possibility
 - ◆ Protect concentration
 - ◆ Offer assistance only when help is truly needed = Scaffolding
 - ◆ **Redirect what is not skillful**
 - ◆ Dangerous
 - ◆ Destructive
 - ◆ Demeaning

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Role models, mirror neurons & potato chips



We are biologically driven to participate in each other

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Rizzolatti & Craighero, 2004

Our brain physically changes as we **adapt** to
 “be” like the people around us



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Role modeling and lessons

- ◆ Every human in the building is a role model (mirror neurons)
- ◆ **All adults** in the building can offer some key lessons (when they receive some preparation/training):
 - ◆ Spoken Language
 - ◆ Grace & Courtesy
 - ◆ Preliminary exercises

We become like those who are around us.
 We are all **ROLE MODELS**.



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Grace & Courtesy Lessons

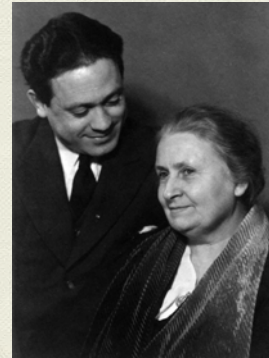
Help children adapt to their culture

"...we must begin our work by preparing the child for the forms of social life, and we must attract his attention to these forms."

- Montessori, M. *The Montessori Method*, p. 121

Examples:

- ◆ How to get someone's attention
- ◆ How to observe
- ◆ How to respond when someone forgets how to observe
- ◆ How to offer, ask for, and decline help
- ◆ Excuse me
- ◆ Another one?



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Procedure for Grace & Courtesy Lessons

1. Practice the lesson ahead of time with your co-teacher!
2. Invite the children to the lesson and sit together around a work rug.
3. Name the lesson.
4. Introduce the scenario (describe a situation where this new behavior would be used).
5. Say, "Let's pretend" and explain the role play.
6. Role play with a prepared, cooperating adult.
7. Encourage the children to role play.
8. Summarize the gracious behavior.
9. Free the child to use the behavior whenever it is needed.

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We are role modeling our actions as well as our words... especially the little things

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Preliminary Exercises:
Little things the child doesn't yet know how to do

- ◆ Getting a paper towel
- ◆ Turning on and OFF the faucet
- ◆ Getting the right amount of toilet paper
- ◆ Using a chair
- ◆ Hanging up their belongings
- ◆ Changing shoes
- ◆ Using a napkin
- ◆ Blowing their nose
- ◆ Using a book
- ◆ Using a sponge



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Supporting what is skillful

What does 'skillful' behavior look like?

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Concentration...on Anything!

*"The first essential for the child's development is concentration.
The child who concentrates is immensely happy."*

- Maria Montessori



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Social Engagement

- ◆ We must help the child adapt to the social norms of their time, place, and group
- ◆ The child does not inherently know what is right or wrong, good or bad; we must teach them
- ◆ *Learning how to behave skillfully liberates the child them from constant scolding and correction for bad manners/behavior*
- ◆ Interacting with others is WORK for the young child!



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Self Correction



- Acknowledgment is skillful
- Praise is unskillful

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AMI/USA (2017). Montessoriguide.org

Scaffolding

"These very children reveal to us the most vital need of their development, saying : 'Help me to do it alone!'"

- Montessori, The Secret of Childhood

- ◆ Brainstorm: With what do children most often need help?
 - ◆ Shoe tying?
 - ◆ Opening a milk carton?
 - ◆ Zipping a coat?
- ◆ Strategies for Scaffolding
 - ◆ "You do the first part."
 - ◆ "I'll have a turn and then you can have a turn."
 - ◆ Silently demonstrate the hand position they need.



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Guiding *towards* work = Finding their interest

"The essential thing is for the task to arouse such an interest that it engages the whole personality....[this] is the point of departure..."

-Maria Montessori, The Secret of Childhood

- ◆ Strategies for Guiding them to Purposeful Work
 - ◆ Walk together to a shelf and start lovingly touching works
 - ◆ Do a work yourself (remember: one up, one down)
 - ◆ Walk by the red rods and stroke them. Say to yourself, "I just love these."
 - ◆ Notice something in the environment that needs care, "Oh, I found dust!"
 - ◆ Invite them to straighten shelves with you

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Redirecting What is Unskillful

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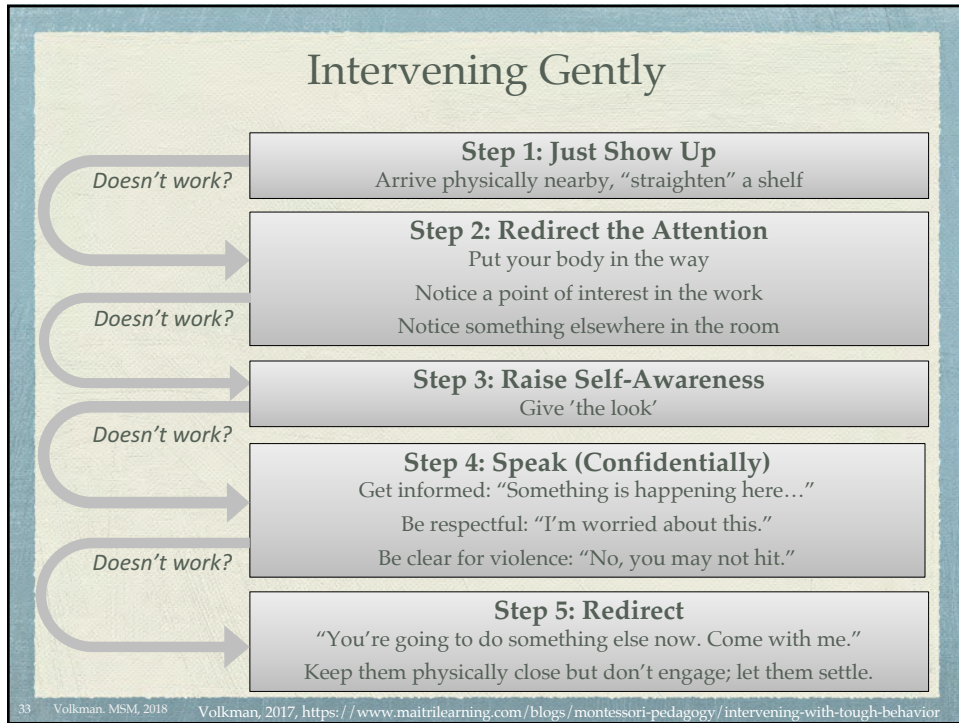
When should we Intervene Immediately?

1. Dangerous
2. Destructive
3. Demeaning

For everything else, pause and observe

- ◊ Redirection may be warranted (e.g., fantasy, impolite)
- ◊ Re-presentation may be warranted
 - ◊ Right away to clarify material use (e.g., move the bucket used for emptying the handwashing basin)
 - ◊ In the future, at a *NEUTRAL* moment, for behavior

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Step 6: Offer Grace & Courtesy Lessons
at a later, neutral moment

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Want to Learn More?

Sign-up for the Online-Only course I help teach at Harvard

PSYC E-1609 Neuroscience of Learning: An Introduction to Mind, Brain, Health, and Education

Spring Term 2018 CRN 25122



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