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SOCIAL AND EMOTIONAL
LEARNING

Contagious Emotions and Responding to Stress

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Neuroscience research suggests that emotions are contagious. Our brains are social organs, and we are wired for relationships. When we encounter or experience intense emotions from another individual, we feel those feelings as if they were our own. [Mirror neurons in our brains](#) are responsible for empathy, happiness, and the contagious anger, sadness, or anxiety that we feel when another person is experiencing these same feelings.

In the film *Inside Out*, 11-year-old Riley and her parents are sitting together at dinner in their new San Francisco home. As the three discuss the youth hockey team that Riley's mother has discovered, Riley's anger builds quickly because Joy has left headquarters (the frontal lobes in her brain), and Fear and Anger are on duty instead. As Riley's anger grows, her father's anger begins to match hers, and the dinner conversation ends in an explosive outburst of emotional contagion. [This amusing dramatization of a very real family dynamic](#) demonstrates how our brains can react and quickly jump into a conflict without our conscious awareness or conscious choice.

Students and educators need to understand how quickly this negative interaction can occur. Conflicts escalate unconsciously when our amygdala, the

emotional control centers in the limbic system, are triggered and we instantaneously react. When two people are experiencing an active stress response, no one is thinking clearly as the frontal lobes are shut down, and behaviors and words can become painful and hurtful. In the end, we rarely feel better, because the amygdala's language is feelings, not words. When we feel negative emotion, words are not heard or understood. This is why co-regulation is so important before we begin to problem solve or explain consequences for poor choices. Co-regulation or calming the stress response system is needed to prime the brain for broadened thinking, planning, and understanding. Research reports that movement and breathing are two significant ways to calm the stress response system. We'll discuss these below as we delve into a few calming strategies for healthy brain functioning.

Calming the Stress Response

[Focused attention practices](#) and movement are the two neurological strategies for calming an angry and anxiety-ridden brain. When we are in this fight-flight-freeze response, we do not hear words or explanations because the neural pathway from the prefrontal cortex back to the amygdala is much like a dirt road – it's underdeveloped, and messages in words are not heard or understood.

1. Get Some Distance

Give students – and yourself – a few minutes to step away from a conflict and de-escalate the limbic reaction. You can accomplish this with deep breaths, some physical space, a few push-ups, jumping rope, a walk, or listening to instrumental music while focusing on your breath.

2. Validate the Feelings

Once the negative emotions have calmed down and the brain has regulated, validation is critical for helping students know that they are heard and understood. Examples of validating statements include:

- That must have made you feel really angry.
- What a frustrating situation to be in!
- It must make you feel angry to have someone do that.
- Wow, how hard that must be.
- That stinks!
- That's messed up!
- How frustrating!
- Yeah, I can see how that might make you feel really sad.
- Boy, you must be angry.
- What a horrible feeling.
- What a tough spot.

3. Questions and Choices

Once the student feels heard and felt, we can gain a better understanding of his or her feelings. We then have an opportunity to implement questions and choices. Both questioning and choice assist in up-shifting an oxygenated glucose blood flow to the prefrontal cortex, where we are better problem solvers, to think clearly about choices and consequences. Here are some sample questions:

- How can I help?
- What do you need?
- What can we do together to make this better?
- What is a plan we can create together?
- Is there anything you need from me now or later that would help you reach your goals?

Reasonable Consequences

The brain loves to make sense out of experiences, information, and relationships that fit together. This is why we need to implement consequences that attend to the hurt or pain that one person has caused another. Consequences for poor decisions and the choices aligned with them will make sense and feel relevant and meaningful to students who are ready to process this information, responding from their frontal lobes in a calm brain state. This is the place in which they'll experience and feel the connection between choices and consequences. Here are some examples of those connections:

- For a student who interrupted whole-class learning, have him or her create an extra-credit assignment for the class on a specific topic or standard.
- For a student who used unkind words to another classmate, have these two partner to create a special assignment, job, or favor for another class or the cafeteria or office staff, starting a "pay it forward" chain for a week of school.
- For a student who showed disrespectful behavior toward an adult, have him or her write a letter of apology explaining what was beneath the hurt feelings that caused the behavior, accompanied by a plan of action to make amends for the hurt feelings that he or she caused.

There are many YouTube videos presenting kindness, empathy, and the tough struggles of others that students will enjoy and learn from. This activity helps us reach beyond our own stubborn egos and negative emotions to serve another. The following links take you to sources of short videos that will help your students create positive emotions and diminish anger:

- [Pennies of Time](#)
- [Random Acts of Kindness](#)
- [Kind Kids Club](#)

What are other ways that we could align consequences to impact future behaviors with positive emotion?

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Posted 4/11/2016 9:48am
Thom Markham



If we're going to help young people (and all of us) meet the challenge of stress, we will need to stop overstating the evidence from neuroscience. There is no evidence that feelings emanate from the brain, or that mirror neurons are the source. Signals from the heart, which has many neurons itself, regulate stress response in the brain by going straight to the hind brain through the vagal nerve, which in turn relays information to the amygdala and prefrontal cortex. In fact, stress is first registered in the heart

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Posted 4/16/2016 7:40pm
Russ Ewell

Parent of 3 and Android + iOS Educational App Developer

Stress is a significant factor in all of our lives. Writing about stress is never easy, because it is a

complex to subject. The part of your article which resonated with me was "validate your feelings." This is an area where parents, educators, and even therapist can fall short. It is so easy to react to feelings instead of understanding and validating them.

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Posted 4/18/2016 7:40pm
alextobin

Russ,

I agree that the most important part of the article was the emphasis on validating a person's feelings. In a stressful situation or when you are dealing with an angry student, teachers do too much "talking" to try to get to the root of the problem or situation. I think it is important to give the student time to calm

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Posted 4/25/2016 6:47am
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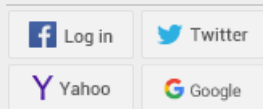
Thom, Thank you for your response but I am going to have to strongly disagree! Yes, feelings are conneted to the vagus nerve and to the heart but there is much research from Dr. Joesph LeDoux, Dr. Richie Davison and Dr. Dan Seigel among others who see the amygdala and orbital frontal lobes respond to emotion! We know very littleabout emotion and the brain and we have much to learn but the studies are accumulating and mirror neurons are strongly correlated with empathy emotional contagion!

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