Webinar Follow-up Question and Answer Session with Allen Ivey

**Question from Nisha Talwar**
I wonder what role does genetics and environment interaction play into this?

**Answer from Presenter**
Basically, the same thing I learned in Introduction to Biology long ago. It is always an interactive. Depression is a biological disease. Genes impact the chance of depression, while environment does as well. A trauma, or even bad experience in the world, impacts neurotransmitters and hormones and results in increased heart rate, change in breathing, inflammation, and onward to the gut. Blood flow changes and cognition slows, impulse control may weaken. Environment impacts biology and these experiences affect epigenetics and whether or not genes turn on and off. And those changes can be passed on three generations. We do not know yet whether environmental changes are permanent, but it seems likely.

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**Question from Holly Justice**
What are your thoughts on having walking counseling appointments? It seems it would be helpful but I am concerned about confidentiality. What your thoughts?

**Answer from Presenter**
Great! Walking outside is really good for children, along with playing outdoor (or indoor) games. Counseling needs more movement. In terms of confidentiality with adults, follow HIPPA and your agency requirements, and then walk in a quiet place. Think ahead about keeping notes and records, but remember that there is clear evidence that recall is often distorted, particularly as time passes.

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**Question from Ida Duplacin**
How about commenting on the concept of "attention-seeking" actually being "attachment seeking"?

**Answer from Presenter**
Yes and no. The two are obviously closely related. I think of attention as more here and now and more oriented to specific areas of the brain. Attending behavior and listening are the two key aspects of empathy, which literally lights up the brain. 

Attachment is a larger concept and is built on all senses—smell, taste, touch, sight, hearing (although these are somewhat relevant to attention and perhaps even seeking attentions). I am a strong advocate of attachment theory and spent two hours with the originator, John Bowlby in London. Attachment is a basic biological need, but differs from child to child. Think of the one that everyone wants—the “warm cuddly.” Other babies automatically pull away from the mother, even at the beginning.
Solid patient, warm parenting very often, perhaps most of the time will warm up the “cold and prickly” child. I’ve seen it. I would venture that the real issue is relationship, another word for attachment. Unless we relate and attach to a client, they will not with us. And, we must give them attention, and we hope they give it to us as well.

Dogs are another biological example… the friendly, the afraid, the aggressive. One wants attention, the other fears it and the last give you attention. Biological needs for attachment, as well as what happens in the environment make a difference.

**Question from Denise Fetters**
Do you have any more references or books that you may refer to us that may elaborate on neuroscience changes in the brain and how we can apply it to counseling clients?

**Answer from Presenter**
Siegel, Colozino, Bradenbock, Arden are all fine.
At a deeper level: Damasio.

Best of all for me is following Medscape (Medscape.com) for free constant quality daily updates and Medline for research on specific topics. Join the American Association of Science and get Science Magazine ([http://www.aaas.org](http://www.aaas.org)). Nature is important as is the review journal The Neuroscientist.

I find searching for and following journals exceptionally help. And, I often look up the original article when I see it in a newspaper…even when I hear it on TV, but that is harder.

YouTube has amazingly wonderful presentations, more than I can ever watch. Look for Sapolsky, where you see the best lecture ever on depression. His Stanford lectures, full of humor and accurate information are wonderful. McEwen is over the top on stress. There are many others, some superior, others not so great.

**Question from Tanya White**
Where do I find research or neurobiology research to counsel single mothers and grandparents parenting for the second time?

**Answer from Presenter**
This is a specialized area that I have not looked into. But attachment theory is very important, teaching single (and other) parents how to parent and enjoy their child is critical—if you were not parented effectively, chances are that you will repeat the pattern.
Search genetic counseling on the net.

To show you the immense array of work on parenting, visit this Swedish neurobiology/neuroscience conference and look at the titles [http://www.sls.se/parenting](http://www.sls.se/parenting) then pick what interests you and Google it on the net. You will be surprised at how easy it is to find articles and useful information.
Amazing: [https://www.youtube.com/watch?v=Louc-Jvg4Us](https://www.youtube.com/watch?v=Louc-Jvg4Us) has 4 minutes on the second child Try neuroscience and child development on YouTube. Same for the web.

I usually can find almost anything about any topic if I stick with different words in both places.

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**Question from Shahnaz Khawaja**

Since racism and social justice factors affect humans at the genetic level, can this genetic material be passed on to future generations therefore perpetuating stigma?

**Answer from Presenter**

Sad to say, yes!

There is immense data in this area. Starting with the male semen, research shows that a depressed father will have a lower birth weight child. Experience in the world changes genes. Stress is terrible on the developing child. Poverty, diet, abuse, etc. all impact genetic development and thus possible inheritance of difficulties.

Race and skin color by themselves produce stigma and racism, of course.

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