

INTRO TO INTER-GENERATIONAL TRAUMA

WITH KAREN CARNABUCCI, MSS, LCSW, ACSW, TEP



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Mice can inherit a learned sensitivity to smell

By Quinn Eastman | Woodruff Health Sciences Center |

Trauma can scar people so indelibly that their children are affected. History provides examples of generations traumatized by war and starvation whose children experience altered physiology.

Now researchers at Yerkes National Primate Research Center, Emory University have found an instance of animals passing on more specific information about a traumatic experience to their offspring. That information comes not through social communication, but through inheritance.

Researchers have found that when a mouse learns to become afraid of a certain odor, his or her pups will be more sensitive to that odor, even though the pups have never encountered it. The results were published online Sunday, Dec. 1, 2013 in *Nature Neuroscience*.

"Knowing how the experiences of parents influence their descendants helps us to understand psychiatric disorders that may have a trans-generational basis, and possibly to design therapeutic strategies," says senior author Kerry Ressler, M.D., Ph.D., professor of psychiatry and behavioral sciences at Emory School of Medicine.

Ressler is a Howard Hughes Medical Institute-supported investigator at Yerkes National Primate Research Center, Emory University. The first author of the paper is postdoctoral fellow Brian Dias, PhD.

Dias and Ressler trained mice to become afraid of an odor by pairing exposure to the odor with a mild electric shock. They then measured how much the animal startled in response to a loud noise at baseline, and in conjunction with presentation of the odor.

Surprisingly, they found that the naïve adult offspring of the sensitized mice also startled more in response to the particular odor that one parent had learned to fear. In addition, they were more able to detect small amounts of that particular odor. Smell-sensitized offspring were not more anxious in general; in separate experiments not involving odors, Dias found that the mice were not more afraid to explore the bright, elevated areas of a maze.

Dias and Ressler took advantage of previous research on the biology of odor detection. Scientists knew that the chemical acetophenone, which smells somewhat like cherry blossom, activates a particular set of cells in the nose and a particular "odorant receptor" gene in those cells.

Both the parent mouse who has been sensitized to a smell and his or her pups have more space in the smell-processing part of their brains, called the olfactory bulb, devoted to the odor to which

they are sensitive.

Dias found that both mothers and fathers can pass on a learned sensitivity to an odor, although mothers can't do it with fostered pups, showing that the sensitivity is not transmitted by social interaction. Future mothers receive their odor-shock training before (and not during) conception and pregnancy.

The inheritance takes place even if the mice are conceived by in vitro fertilization, and the sensitivity even appears in the second generation (grandchildren). This indicates that somehow, information about the experience connected with the odor is being transmitted via the sperm or eggs.

Dias discovered that the DNA from the sperm of smell-sensitized father mice is altered. This is an example of an "epigenetic" alteration, found not in the letter-by-letter sequence of the DNA, but in its packaging or chemical modifications.

In mice taught to fear acetophenone, the odorant receptor gene that responds to acetophenone has a changed pattern of methylation: a chemical modification of DNA that tunes the activity of genes. However, it's unclear if the changes in that gene are enough to make the difference in an animal's odor sensitivity.

"While the sequence of the gene encoding the receptor that responds to the odor is unchanged, the way that gene is regulated may be affected," Ressler says. "There is some evidence that some of the generalized effects of diet and hormone changes, as well as trauma, can be transmitted epigenetically. The difference here is that the odor-sensitivity-learning process is affecting the nervous system – and apparently, reproductive cells too -- in such a specific way."

What the researchers don't know yet:

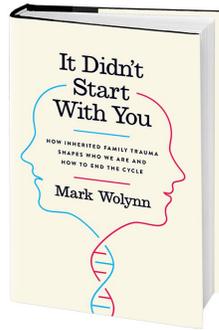
- Are these effects reversible – if sensitized parents later learn not to be afraid of an odor, will effects still be seen in their pups?
- Does it only happen with odors? Could mice trained to be afraid of a particular sound, for example, pass on a sensitivity to that sound?
- Do all the sperm or egg cells bear epigenetic marks conveying odor sensitivity?
- How does information about odor exposure reach the sperm or eggs?

"We are really just scratching the surface at this point," Dias says. "Our next goal must be to buffer descendant generations from these effects. Such interventions could form the core of a treatment to prevent the development of neuropsychiatric disorders with roots in ancestral trauma."

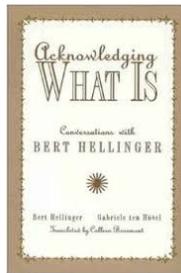
—10 KEY POINTS TO KEEP IN MIND ABOUT ANCESTRAL TRAUMA

1. **Inter-generational trauma is real.** Anecdotal research by Bert Hellinger, Anne Ancelin Schutzenberger (“The Ancestor Syndrome”) and others is now being confirmed by scientific studies that are able to actually identify the transmission of trauma from one generation to another through DNA changes, hormonal disruptions and other markers. As you work with people, particularly those with seemingly “intractable” problems, keep in mind that the person’s problem may be rooted in a previous generation. This will inform the attitude that you bring to each client or patient who comes to you.
2. **Become educated about inter-generational trauma and how it may live with yourself and your clients and patients.** This includes sorting through your own intergenerational trauma as well as how you can identify intergenerational trauma in your clients and their family systems. As you sort through your own family system pain and difficulty, you will be able to address and dissolve blind spots and therefore be able to offer a greater depth of healing to your clients.
3. **Learn to identify the kinds of ancestral trauma that our ancestors, and our culture, have experienced.** On a family level, this may include immigration, early or traumatic death, shunned or missing family members, war and combat and the like. On the cultural level, slavery, genocide of the indigenous and natives, the Holocaust and other traumas are present and impact multiple generations to come. Knowledge and interest in history will offer you a greater sense of what those who came before us experienced, suffered and endured.
4. **Look at how you can begin to safely and appropriately address these issues within your practice or other kind of work space.** For many people, ancestral trauma is simply not even considered thought; for others, there may be a strong unconscious desire to avoid looking at the pain of their ancestors. Part of your assessment will be to determine their readiness to explore these areas. If they are not ready to look at ancestral experiences, go in another direction and revisit later.
5. **When a client or patient comes to you with the presenting problem, ask about the ancestral experience.** The problem may be depression, anxiety, couple arguments, sibling feuds, poor health, high levels of anger, etc. Ask, “Did anyone else in your family suffer in this way or experience this in his or her lives?”
6. **For many people, books, articles and videos are a great place to start.** The recently published book “It Didn’t Start with You” by Mark Wolynn is a very readable book that many people have found helpful; he has many good articles at his site www.markwolynn.com. Web searches for “intergenerational trauma” and “Family Constellations” can also point you and your clients to helpful resources.
7. **Take a neutral stance when hearing your client’s story.** You may be tempted to join the client in vigorously blaming the bad parent, the abusive ex-boyfriend or any other kind of perpetrator who has hurt your client in some way. Validate feelings, of course. Remember it is more helpful to hold the stance within you that there is no one to blame for a client’s difficulty, that the trauma happened and that it likely — but not always — has roots in the larger family system.
8. **Do not permit your clients to speak badly of others in their current or past family system.** This includes history taking, general discussion and reporting, as well as role play, if you do the latter. Again, although blaming and pointing are perfectly normal responses when people are suffering, blaming divides rather than heals. Reframe the blame into identifying and taking responsibility for anger. For instance, rather than “You’re a terrible person and you’re a terrible father and I hate you,” encourage the client to try out a statement that takes responsibility, such as, “I’m angry with you.”
9. **Encourage the clients to learn more about their family history, particularly if they know very little.** This may include starting their family genealogy, talking to the family “historian” or at least the oldest person in their family, as well as their parents, if the parents are available and willing to talk. Also helpful — looking through old photographs, family mementoes and letters.
10. **Pay attention to your own body.** When you sit with a client, the client is bringing his or her ancestral history with him or her, through the body. Your body may be attuned to the unconscious material of your clients. Pay attention to your level of tiredness, anxiety or numbness when sitting with a client, as well as sensations in any part of your body, emotional feelings and thoughts that may not seem like they belong to you. Although these are not definitive ways of assessing, your body may be picking up and attuning to important clues about your client’s distress.

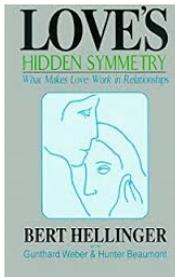
Resources



It Didn't Start with You: How Inherited Family Trauma Shapes Who You Are and How to End the Cycle
By Mark Wolynn



Acknowledging What Is: Conversations with Bert Hellinger
By Bert Hellinger with Gabrielle ten Hovel



Love's Hidden Symmetry: What Makes Love Work in Relationships
By Bert Hellinger with Gunthard Weber and Hunter Beaumont



Constellations & Addiction Treatment

Go to www.thefix.com website to search and read Karen Carnabucci's article about how practitioners are using Family Constellations with addicts.



Honor Your Ancestors with an Altar and Transform Your Life

Go to www.medium.com website to search and read Karen Carnabucci's article about to use family and ancestor altars for healing and grieving.

YouTube videos

Go to YouTube.com and search for “Dan Booth Cohen” videos. Watch especially for the videos titled “The Inherited Mind” and “The Three Dimensions of Consciousness.”

Also at YouTube, search for “Mark Wolynn” and “Science and Nonduality Conference” for Mark’s 30-minute lecture.

**North American Systemic Constellations**

Blog articles, e-letter subscription, social media links and conference rinfo at www.nasconnect.org. It also sponsors a conference, coming Nov. 11-15, 2020 in Colorado Springs, Colo.

**Ghost in Your Genes**

Go to YouTube.com and search “ghost in your genes” to watch this full-length NOVA video.





About Karen Carnabucci, MSS, LCSW, ACSW, TEP

Karen Carnabucci, MSS, LCSW, ACSW, TEP, is a licensed clinical social worker and nationally board-certified trainer, educator and practitioner of psychodrama, sociometry and group psychotherapy who uses the creative arts, psychodrama, Family and Systemic Constellations, sand tray and other action methods for learning, healing, change and growth.

She has trained with Zerka Moreno, J.L Moreno's widow and collaborator in psychodrama, and Heinz Stark, a leading trainer in Systemic Constellation Work, and many more wise mentors and teachers. She is a graduate of the School of Social Work and Social Research at Bryn Mawr College.

She has presented at the annual conference of the American Society of Group Psychotherapy and Psychodrama and the biennial North American Systemic Constellations Conference as well as many local, regional and state conferences and gatherings.

She is the founder of the Lancaster School of Psychodrama and Experiential Psychotherapies, located in Lancaster, Pa., where she offers training and supervision for professionals with CE and psychodrama credits, supervision for LCSW and other licensure, personal growth groups and psychotherapy.

Karen is the author of:

- “Show and Tell Psychodrama: Skills for Therapists, Coaches, Teachers and Leaders.”
- “Integrating Psychodrama and Systemic Constellation Work: New Directions for Action Methods, Mind-Body Therapies and Energy Healing” with the late Ronald Anderson
- “Healing Eating Disorders with Psychodrama and Other Action Methods: Beyond the Silence and the Fury” with Linda Ciotola.

See Karen's website at www.realtruekaren.com to:

- Subscribe to her e-letter for professionals.
- See her calendar of events and trainings at realtruekaren.com
- Read her blog articles.