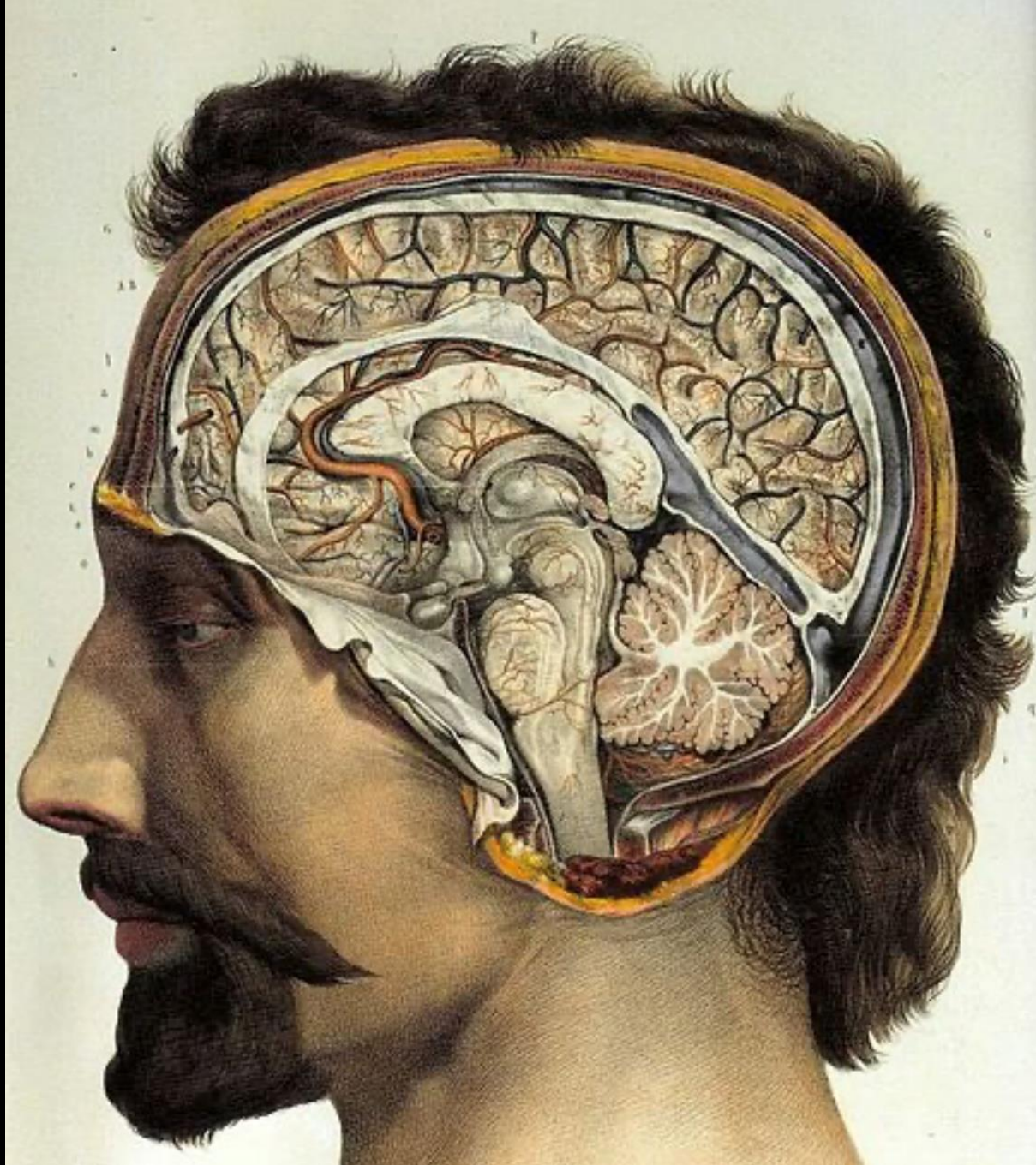


# WHAT BRAIN SCIENCE HAS TO TELL US ABOUT CONNECTION AND LONELINESS © J. W. Freiberg, Ph.D.; J.D.

## OUTLINE OF TALK

- WHY IN THE WORLD WOULD AN ATTORNEY BE WRITING AND SPEAKING ABOUT WHAT BRAIN SCIENCE HAS TO TELL US ABOUT CONNECTION AND LONELINESS?
- THE NATURE OF SCIENTIFIC REVOLUTION
- BESSEL VAN DER KOLK'S USE OF CONTEMPORARY BRAIN SCIENCE: THE LIMBIC BRAIN
- THE UTILITY OF DISTINGUISHING THE LIMBIC BRAIN FROM THE CORTICAL BRAIN IN INQUIRIES OTHER THAN THOSE OF TRAUMA PSYCHIATRY
- THE LIMBIC BRAIN'S ROLE IN BOTH ENABLING CONNECTION AND IMPEDING LONELINESS
  - A Thumbnail Description of the Biology of the Homo Sapiens Tri-Partite Brain
  - The Evolutionary Development of Connection
  - The Development of Neural Connectivity and Social Connections in a Human Child
  - Connective Success, Better Health, and Longer Life
- IDENTIFYING CHRONICALLY LONELY PERSONS IN YOUR CLINICAL PRACTICE
  - The UCLA Loneliness Scale – Version 3
  - Amy Banks, M.D.'s Relational Assessment Chart
- CLINICAL WORK WITH THE CHRONICALLY LONELY: The Team Approach to Relational Coaching
  - Step 1: Explaining the Team Approach
  - Step 2: Managing Expectations
  - Step 3: Determining The Source of the Client's Relational Malfunctioning
  - Step 4: The Strategy of Relational Coaching



Midsagittal Drawing of Human Skull / Brain

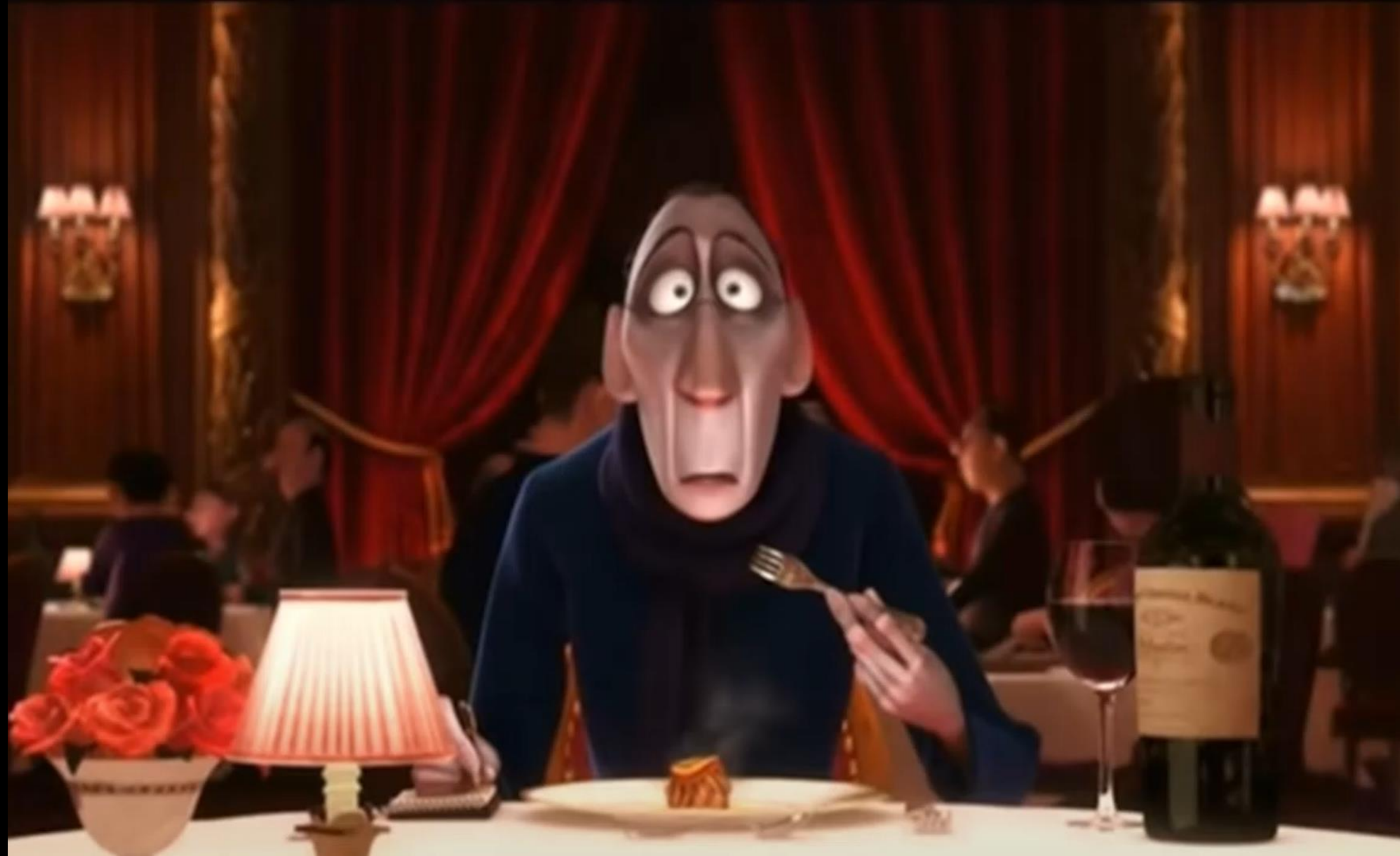
Film Clip from Ratatouille ("R")





























Bonobo Moms and Infants





Elephant Calf and Sleeping Mom





Elephant Cows with Calves



Elephant family





*hooked.*



Chimp Hug





*hooked.*



1:41



Chimp Hug





Chimp Hug



Play (k)

SUBSCRIBE

Chimp Hug





Gorilla Nuzzling



Jane Goodall



Camel Hug





Kangaroo Hug





Hippo Nuzzling



Wolves Nuzzling





Cheetahs Nuzzling



*hooked.*

Lion Hug







Lion Hug





Lion Hug





Lion Hug



Bear Nuzzling





Boy with chicken



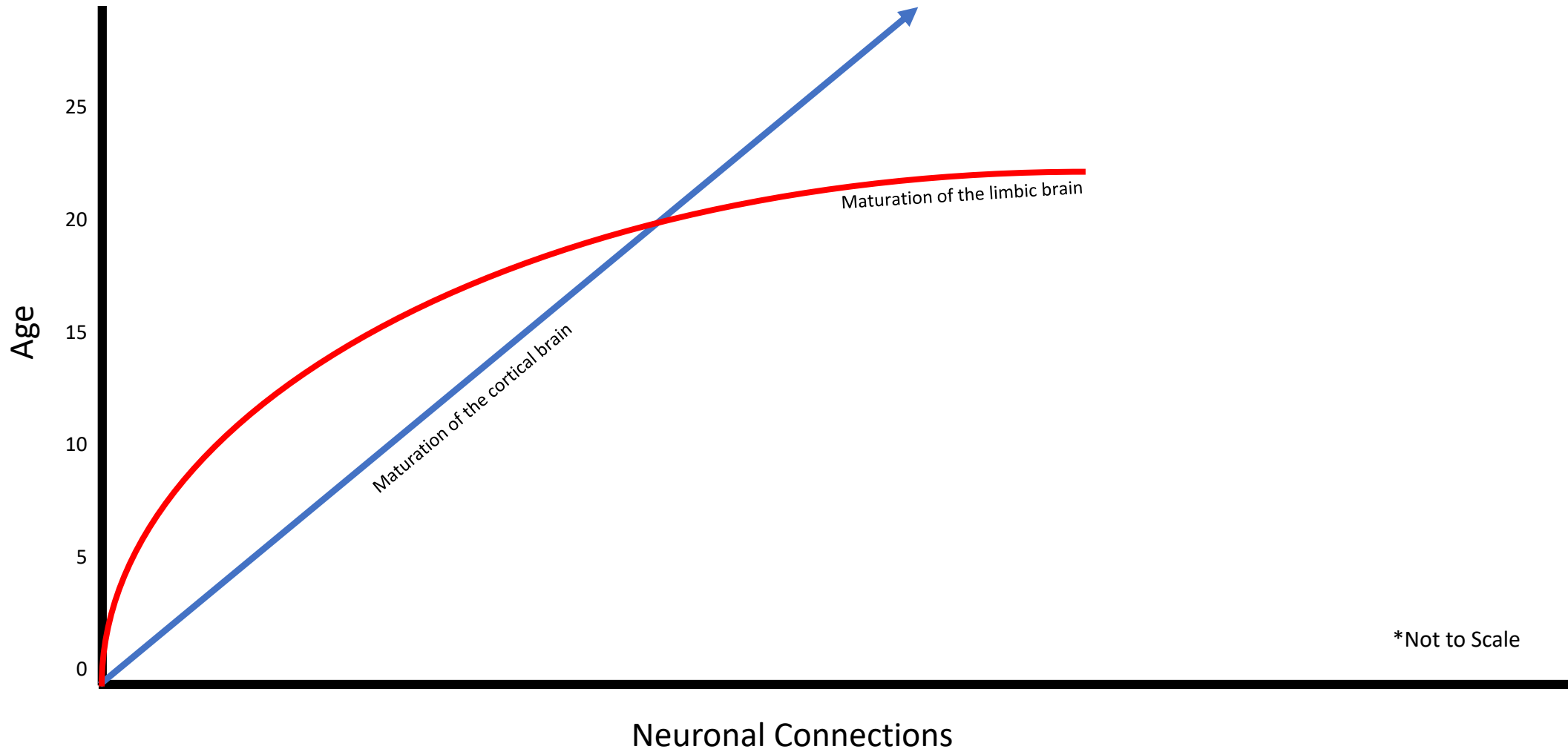
Baby







# Differential Development Rates of the Limbic and Cortical Brains





# UCLA LONELINESS SCALE - VERSION 3\*

Statement	Never	Rarely	Sometimes	Often
1. How often do you feel that you are “in tune” with the people around you?	1	2	3	4
2. How often do you feel that you lack companionship?	1	2	3	4
3. How often do you feel that there is no one you can turn to?	1	2	3	4
4. How often do you feel alone?	1	2	3	4
5. How often do you feel part of a group of friends?	1	2	3	4
6. How often do you feel that you have a lot in common with the people around you?	1	2	3	4
7. How often do you feel that you are no longer close to anyone?	1	2	3	4
8. How often do you feel that your interests and ideas are not shared by those around you?	1	2	3	4
9. How often do you feel outgoing and friendly?	1	2	3	4
10. How often do you feel close to people?	1	2	3	4
11. How often do you feel left out?	1	2	3	4
12. How often do you feel that your relationships with others are not meaningful?	1	2	3	4
13. How often do you feel that no one really knows you well?	1	2	3	4
14. How often do you feel isolated from others?	1	2	3	4
15. How often do you feel you can find companionship when you want it?	1	2	3	4

16. How often do you feel that there are people who really understand you?	1	2	3	4
17. How often do you feel shy?	1	2	3	4
18. How often do you feel that people are around you, but not with you?	1	2	3	4
19. How often do you feel that there are people you can talk to?	1	2	3	4
20. How often do you feel that there are people you can turn to?	1	2	3	4

Alright, now let’s talk about totaling your score. It’s a bit more complicated than just adding up the numbers, because the following questions are reverse scored: 1, 5, 6, 9, 10, 15, 16, 19, and 20. So, for these nine questions, if you circled “1,” on a separate sheet of paper, give yourself a “4,” if you circled “2,” give yourself a “3,” if you circled “3,” give yourself a “2,” and if you circle “4,” give yourself a “1.” Total the new scores. Add to this the total of your circled scores on the other holes.

Just to make certain this is clear, *after* making the “reverse score” changes on the nine questions listed above, (indicated below by an asterisk) the loneliest person on the planet would have the following scores on questions 1 through 20, in order: \*4, 4, 4, 4,\*4,\*4, 4, 4,\*4,\*4, 4, 4, 4, 4,\*4,\*4, 4, 4,\*4 and \*4. So, this fictional loneliest person would have a total score of 80, while a person who considers himself to be a genius of connective skills, would have a score of 20. Your score, my score—everybody’s score-- falls somewhere in between, because the questions are designed to probe the different levels of confidence each of us has in our connective capacities, and few among us—if any—live their life utterly confident that they are always in tune with everyone they know, that they never lack companionship or feel alone, that they are always outgoing and friendly, and so on.

\*See Russell, D, Peplau, L. A., & Ferguson, L.L. (1978). Developing a Measure of Loneliness. *Journal of Personality Assessment*, 42, 290-294. Russell, D, Peplau, L. A., & Cutrona, C. E. (1980). The Revised UCLA Loneliness Scale: Concurrent and Discriminate Validity Evidence. *Journal of Personality and Social Psychology*, 39, 472-480. McKenna, K. Y. A. S., & Gleason, M. E. J. (2002). Relationship Formation on the Internet: What’s the big Attraction? *Journal of Social Issues*, 58, 9-31.

## RELATIONAL ASSESSMENT CHART\*

Answer the questions on a 1 to 5 scale:	Name #1	Name #2	Name #3	Name #4	Name #5	Total Statement Score	C.A.R.E Code
1=None or never 2=Rarely or minimal 3=Some of the time 4=More often than not; medium high 5=Usually; very high							
1. I trust this person with my feelings.							Calm
2. This person trusts me with his feelings.							Calm
3. I feel safe being in conflict with this person.							Calm
4. This person treats me with respect.							Calm
5. In this relationship, I feel calm.							Calm Accepted
6. I can count on this person to help me out in an emergency.							Calm Accepted
7. In this relationship, it's safe to acknowledge our differences.							Calm Accepted
8. When I am with this person, I feel a sense of belonging.							Accepted
9. Despite our different roles, we can trust each other as equals.							Accepted

10. I feel valued in this relationship.							Accepted
11. There is give and take in this relationship.							Accepted
12. This person is able to sense how I feel.							Resonant
13. I am able to sense how this person feels.							Resonant
14. With this person I have more clarity about who I am.							Resonant
15. I feel that we "get" each other.							Resonant
16. I am able to see that my feelings impact this person.							Resonant
17. This relationship helps me be more productive in my life.							Energetic
18. I enjoy the time I spend with this person.							Energetic
19. Laughter is a part of this relationship.							Energetic
20. In this relationship, I feel more energetic.							Energetic
Safety Group Score							

\*Reprinted with consent of author. See Amy Banks, M.D. with Leigh Ann Hirschman. *Wired to Connect: The Surprising Link Between Brain Science and Strong, Healthy Relationships*. Jeremy Tarcher / Penguin (2015). P. 95, ff.