From *The World in Six Songs*
Book by Daniel Levitin

Three cognitive abilities characterize the musical brain: (pg 15)

1. **perspective taking:** the ability to think our own thoughts and to realize that other people may have thoughts or beliefs that differ from our own
2. **representation:** the ability to think about things that aren’t right there in front of us
3. **rearrangement:** the ability to combine, recombine, and impose hierarchical order on elements in the world

These three abilities, alone and in combination, are the common foundation of language and art.

The musical brain helped to prepare humans for survival. (pg 104) The same neurochemicals that helped ensure survival in hazardous, ancient environments are those released to relieve stress. Music is a safe forum to practice and hone skills vital through the life span. This is practiced through TRIP: Tension, Reaction, Imagination & Prediction. Common life experiences among humans cause a convergence of meaning for “tension” and “release” across individuals when referring to music.

When learning music – it would be inefficient and also unnecessary to try to memorize every single note of a flurry of notes. (pg 159) Instead, research shows that in cases like this, musicians typically memorize the low note, the high note, and how many beats there are available to get them from one to the other. Then using their knowledge of scales and tonality – rules - they construct the intermediate notes as and when they’re needed. Rhythm plays its role in the in aiding recollecting of lyrics. (pg 167) These rhythmic units usually coincide with the units of meaning in oral tradition of that culture.

Synchronized singing (pg 184) positively affects the psychological state of individuals. An individual must balance self-confidence in his singing compared to a willingness to align with his neighbors. This trade off is nonlinear and dynamic, changing throughout the course of a performance (and it is found in many other dynamic systems, such as ecosystems).

Ceremony (pg 191) (a uniquely human invention) commemorates important events (birth, death, marriage, the seasons, etc.). Rituals tie us to the to the event itself and to the cycle of history in which many events have previously occurred and will continue to occur. They are a form of externalized, social memory, and when marked by music, they become even more firmly instantiated in both our personal and collective memory.

Children’s songs construct & reinforce the physical and social order of the environment, encoding the perceptions into age-appropriate schemata, information vital to the survival of every member of the group. (pgs 148-149)
Forms of nonsynchronous singing & chanting exist in much of the world’s religions. (pg 211) Rounds are too difficult for young children, who become distracted by the other parts, until they reach a developmental stage in which they have more control over their attention (frontal cortex development), at about six or eight years old. Complex nonsynchronous music can thus serve as a marker of intellectual maturity. Call & response, because of it’s predictability, can cause shifts in brain waves, easing us into altered states of consciousness (flow).

Music is a highly efficient memory and information transmission system. (pg 225)

“It is the love of our existence that is the highest love of all, the love of humanity with all our flaws, all our destructiveness, all our petty fears, gossip, and rivalries; love of goodness that we sometimes show under the most difficult stresses, of the heroism of doing the right thing even when no one can see us doing it, of being honest when there is nothing to gain by it, of loving those whom others might find unlovable. It is all this, and our capacity to write about it — to celebrate it in song—that makes us human.