

To: Summer Vocology Students

From: SVI 2024 Guest Faculty Lynn Holding

Re: Reading Assignment for SVI course "The Third Pillar of Voice Science: Cognitive Science," from the book, *The Musician's Mind: Teaching, Learning, and Performance in the Age of Brain Science* by Lynn Holding

Last updated 3-21-24

Dear SVI Enrollees:

I am looking forward to speaking with you all about the application of cognitive science to the singing voice! In order to make our short time together most productive, there is an advanced reading assignment in ***The Musician's Mind*** that you should complete anytime before my arrival at SVI; (complete detailed assignment, below).

The ***The Musician's Mind*** is available On Amazon at [this link](#), in these formats:

- Paperback
- Kindle
- Audiobook

Reading Assignment / *Musician's Mind*

Lynn Holding has assigned certain sections, which are listed below in the "Reading Assignment SVI Musicians Mind"

Reading Assignment SVI Musicians Mind

While I encourage all SVI enrollees to read the entire book, I have listed the chapters and subsections below as follows:

- "Required" = these topics will be central to the course.
- "Strongly encouraged" = these topics will be covered, or referred to, in this course.
- "Not required" = there will probably not be time to cover these topics in this course.

Introduction: A New Enchantment

Required: *pages xix-xxv*:

- A New Enchantment
- The Brain on Music
- The "Mozart Effect"
- Music and the Mind

Chapter 1: Science, Art and The Missing Mind

Required: *A//*

- What Revolution?
- Mindless Behaviorism
- The New Science of Mind
- Music as a Weapon
- Science and Art
- C.P. Snow's "Two Cultures"
- The "Third Culture"
- The Theory of Multiple Intelligences
- The Rescue of Emotion
- The Other Half of the Truth
- The Mind-Body Problem
- Neuroaesthetics
- Cautious Enchantment

Chapter 2: Groundwork: at the Foothills

Required: *A//*

- Neuromyths and Brainscams
- In the Shadow of the "Mozart Effect"
- Tracking a Scientific Legend
- Exposure Is Not Learning
- The Left Brain | Right Brain Dichotomy
- Brain Personalities and Learning Styles
- Real Brain Gains
- What is the Use of Music?
- The Big One
- Know-That and Know-How
- How the Thing Works

Chapter 3: How Learning Works

Required: *A//*

- Two Basic Modes of Information Processing
- Learning Defined
- The Triumvirate of Learning
- Step One: Attention
- Attention Aides: Emotion and Desire
- Attention Aides: Motivation and Rewards
- Attention Aide: Goal-Setting
- Attention Aide: Sleep
- Step Two: Learning
- Chunking

- Constructed Memories
- Step Three: Memory
- Neurogenesis and Neural Plasticity
- The Plastic Paradox
- Back to the Body

Chapter 4: Learned Movement: Motor Learning

Required: *All*

- The Question is How, Not What
- Motor Learning and Performance
- Differences Between Learning and Performance
- Performance Shifts: Upsides and Downsides
- Negative Performance Shifts and 'Unlearning'
- The Path to Carnegie Hall
- Three Rule of Practice
- Motor Imagery: Thinking About Doing
- Controlled versus Automatic Processes: Learning/Have Learned
- Feedback
- Inherent Feedback
- Vision
- Singers' Alternative Facts: Cognitive Dissonance
- Proprioception
- Augmented Feedback
- Concurrent Augmented Feedback
- Terminal Feedback
- Feedback Frequency
- Knowledge of Performance and Knowledge of Results
- Too Much Information?
- Hands Off
- The Theory of Attentional Focus
- Attentional Focus in Music
- Novice Learners and Internal Focus
- Challenges to "The Maxim" and "Just-do-it"
- Flexible Attention
- Planning for Disruptions: Training How to Think
- Training Embodied Cognition

Chapter 5: Performance Studies

Required (these highlighted sections)

- Deliberate Practice
- Cognitive Demands of Deliberate Practice
- Emotional Demands of Deliberate Practice

- Grit
- Beyond Deliberate Practice
- Early Starts and Caring Mentors
- Tiger Moms and Helicopter Parents
- The Inverse Power of Praise
- Building Motivation
- Self-Esteem Theory
- Nature/Nurture
- The Talent Account: So What?
- Toxic Talent and Social Justice
- The Good Enough Musician

Chapter 6: Mind Games: *Not required*

- Break A Leg! - and Other Mind Games
- Music Performance Anxiety (MPA)
- Choking Under Pressure
 - Causes of Choking: The Theory of Explicit Monitoring
 - Causes of Choking: The Theory of Distraction
 - The White Bear Problem and the Ironic Effect
- The Upside of Anxiety
- Researched Treatments for MPA
- Standard Psychotherapies for MPA
- Alternative Therapies for MPA
- Stories of MPA
- The Upside of Quitting
- Good Luck – and Break a Leg!

Chapter 7: the Digital Brain

Not required, but strongly encouraged

- Digital Heaven
- Trouble in Paradise: The "Screen Invasion"
- Multitasking: "Dumbing Down the World"
- Interruption Science and Acquired ADD
- Zebras Don't Multitask, Either
- Internet Addiction
- Who is Minding the Store?
- The Plastic Paradox and Digital Technology
- Who Cares if You Listen? The Problem of Audience Attention
- Dialing Down Empathy

Chapter 8: Emotion, Empathy and the Unification of Art and Science: *Not required, but strongly encouraged*

- Emotion
- Understanding Empathy
- Paying Attention To Empathy
- Empathy And Goodness
- Empathy And Bias
- Leveraging Homophily
- Instilling Empathy Through Art
- Coda: The Fourth Culture And The Unification Of Art And Science