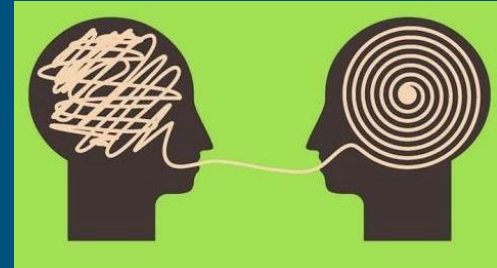


Lifting the Curse of Knowledge in Voice Pedagogy



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“The better you know something, the less you remember how hard it was to learn.”

--Steven Pinker,
A Sense of Style



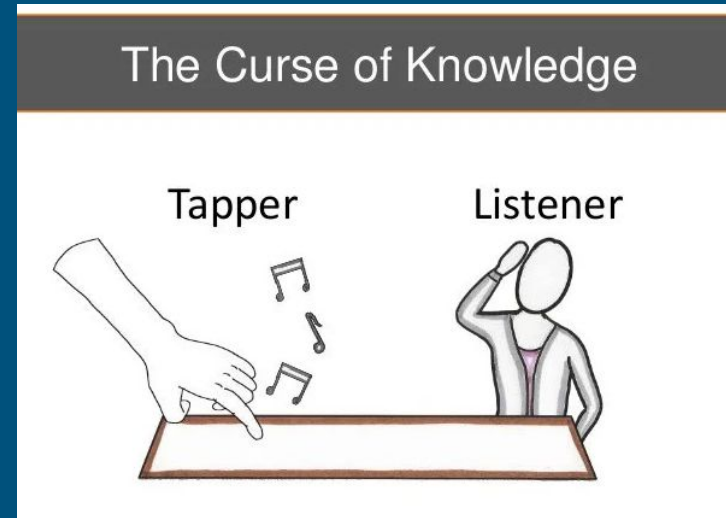
What is *The Curse of Knowledge*?

- Cognitive bias → people do not realize their expertise is **not** shared by others
- Once learned, the gift of knowledge turns into a curse
- You're speaking your native language: "Expertese"
- Experts assume information is simpler and clearer than it is



Curse of Knowledge study (Newton, 1990)

- The “tappers” tapped the rhythm of a well-known song to the “listeners”
- Tappers predicted the odds listeners would be able to guess the song were 50%
- Listeners guessed correctly only 2.5% of the time



AWARENESS: FIRST STEP BUT NOT THE ANSWER

- Does shining a light on the curse help?
- Even when people were warned about the curse, it remained strong (Pohl & Hell, 1999)
- Why is the curse so stubborn?



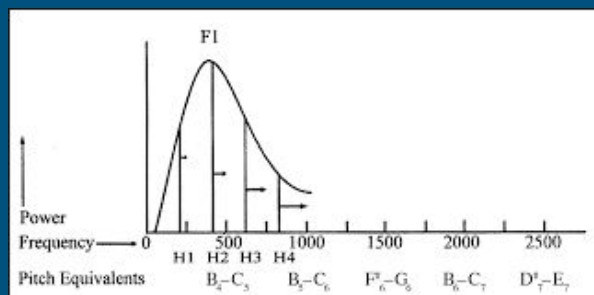
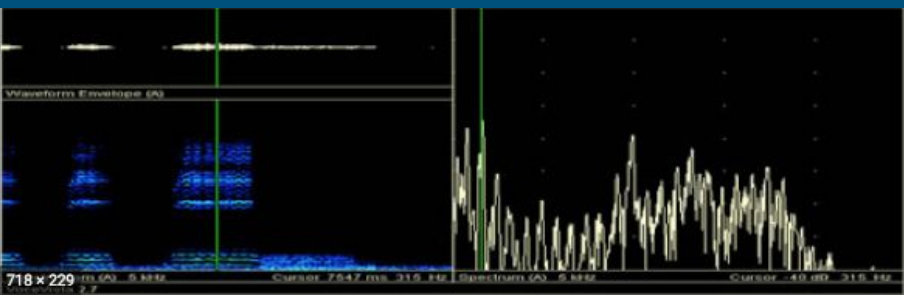
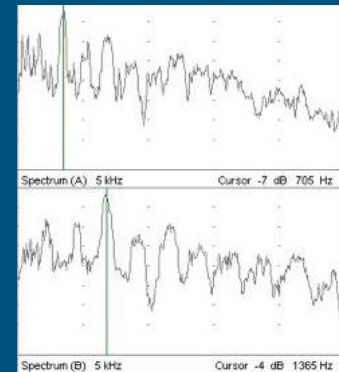
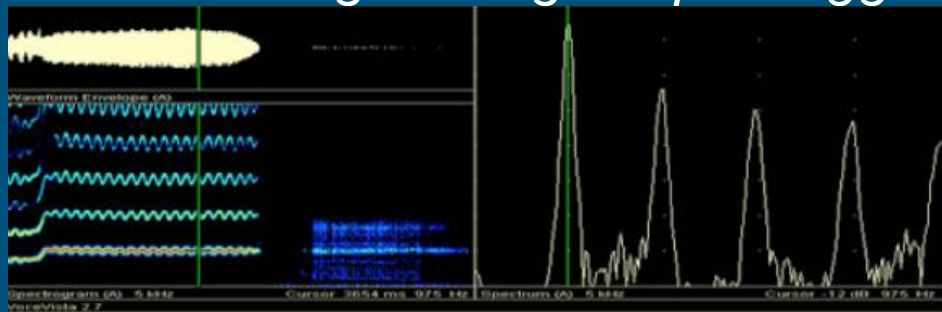
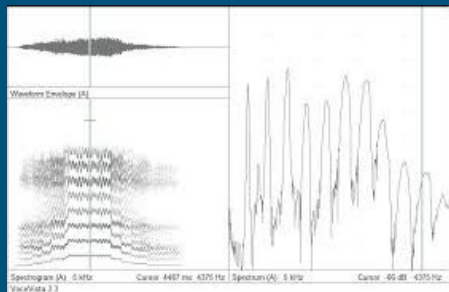
YOUR BRAIN ON EXPERTISE

- Brains of novices and experts are activated differently (Hill & Schneider, 2006)
- Brains of experts work less strenuously -->more efficient (Bernardi et al., 2013)
- Expertise requires restructuring of the brain over time



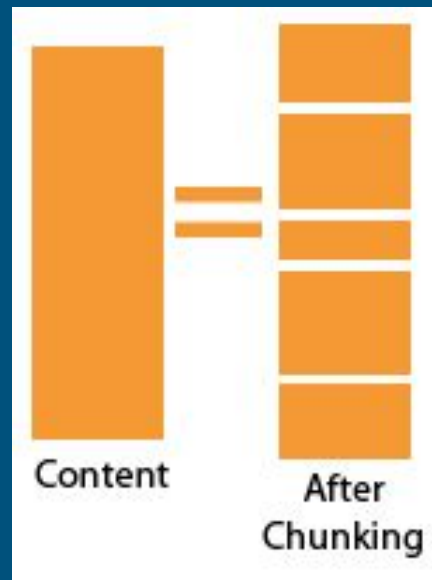
CHUNKING: UNCONSCIOUS SHORTCUTS

Male singers need to learn to let the second harmonic rise above the first formant in negotiating the *passaggio*



THE PROBLEM WITH “CHUNKS”

“As we read and learn, we master a vast number of these abstractions, and each becomes a mental unit which we can bring to mind in an instant and share with others by uttering its name. An adult mind that is brimming with chunks is a powerful engine of reason, but it comes with a cost: a failure to communicate with other minds that have not mastered the same chunks.” (Pinker, 2014)



REMEMBERING THE NOT-SO-RECENT PAST

- **Availability heuristic:** recall more recent experiences/memories more accurately than older ones
- Farther away one gets from learning phase, foggier it becomes in the mind
- Experts unconsciously viewed a task as simpler than it was → lack accurate memory of their own novice experience



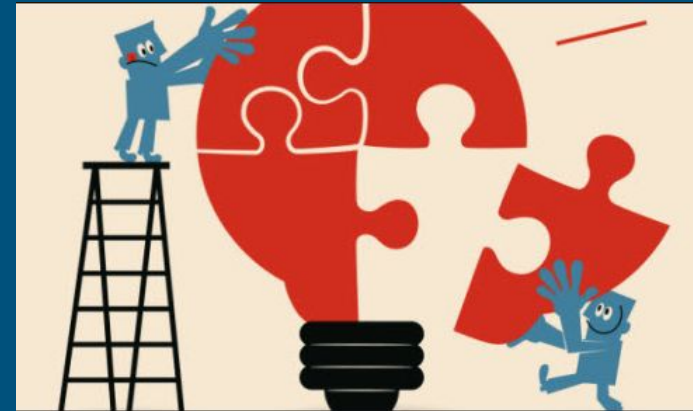
A FORCE TO BE RECKONED WITH

- What are teachers to do?
- Practical suggestions for lifting the curse



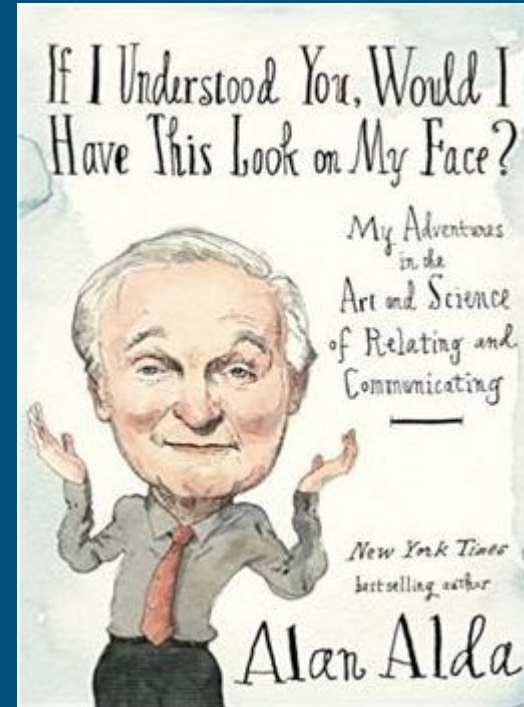
COLLABORATION WITH INTERMEDIATES

- Intermediates possess a better idea of how long it would take novices to perform certain tasks (Hinds, 1999)
- *“Knowing a subject is profoundly different from knowing how that subject is best learned.”* (Wieman, 2007)
- Infuse curricular planning and academic committees with intermediates, survey graduate students, studio class



AVOID JARGON AND THE ABSTRACT

- “Naming something doesn’t make it understandable” (Alda, 2017)
- People are overconfident in determining what other people are thinking (Epley, 2014)
- Finding a “universal language” --> different than “dumbing down” the information



EMPATHY TRAINING



- *“Just because you are busy doing things that seem to you like teaching, this is no reason to believe that the students in the room with you are necessarily learning what you intend for them to learn.”*
(Duke, 2009)
- Online Test: “Reading the Mind in the Eyes” <http://socialintelligence.labinthewild.org/mite/>
- *“As teachers, much of our success hinges on our ability to empathize with students, and the degree to which our students believe we care about them is directly proportional to how well they will follow our recommendations.”* (Helding, 2017)

EMPATHY TRAINING



- An improviser must “*observe the other person, track body language and tone of voice, intuit their thoughts and feelings.*” (Alda, 2017)
- Name the emotions of others → changes both parties (Lerner, in press)
- Responsive Listening
- Students are “*experts at assessing their own understanding,*” and if they are unsure, they know it (Wiggins, 2014)
- Learn something new!

PRIORITIZATION: FIND THE CORE

- *“Forced prioritization is really painful. Smart people recognize the value of all the material.”* (Heath & Heath, 2007)
- *“Accuracy to the point of uselessness is a symptom of curse of knowledge.”* (Heath & Heath, 2007)
- **Alda’s 3 Rules of 3:** 1) no more than 3 pieces of info 2) explain in 3 different ways 3) make point 3 times



ANCHORING IN WHAT'S KNOWN

- “Horseless carriages,” primal sounds
- Power of analogies
- *“People learn better when they construct their own understanding.”* (Wiggins, 2014)



REVERSING THE CURSE

- Answer stage vs. Telling Others stage
- Collaboration
- Using concrete language
- Empathy
- Prioritization
- Anchoring



Further reading

For more information and complete references, please see the *Journal of Singing* article:

Melissa Treinkman, "Lifting the Curse of Knowledge in Voice Pedagogy," *Journal of Singing* 75, no. 3 (January/February 2019): 337-344.

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