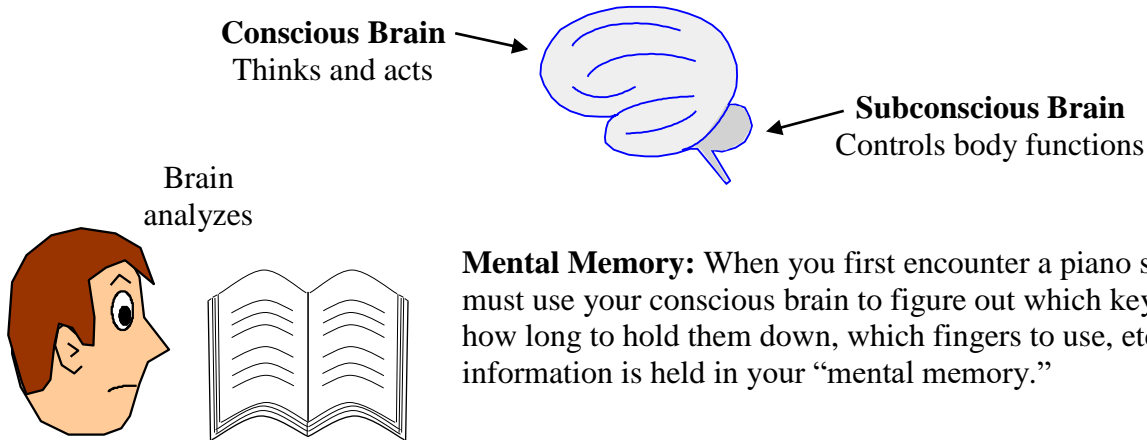


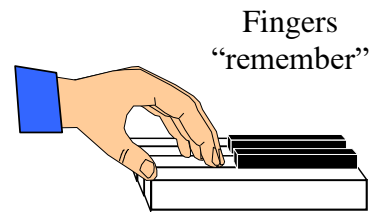
# Practice & The Piano Paradox

## Mental vs. Muscle Memory

You have two brains: a conscious brain for thinking and taking deliberate actions, and a subconscious brain for controlling body functions and automatic muscle actions like breathing and pumping blood.



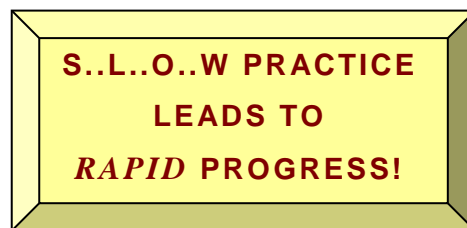
**Muscle Memory:** As you begin to press keys on the piano, your subconscious brain records these movements in "muscle memory." With repetition, your fingers develop a "mind of their own," and you're eventually able to play the song without consciously thinking about it.



In fact, once you've learned a song, if you try think about which key comes next, you'll often make a mistake and not be able to proceed without replaying the song from the beginning. Ironically, conscious thinking interferes with programmed muscle memory!

When first learning a physical task, such as driving a car, you must consciously pay attention to every aspect, which can be overwhelming. But in time the task becomes almost automatic, and you're able to perform it subconsciously while engaging in other activities, like daydreaming or having a conversation. Likewise, once a piano song is committed to your muscle memory, you can begin to pay attention to playing it more expressively or adding enhancements.

## The Piano Paradox



*A paradox is the opposite of what you expect.*

How could doing something slowly lead to rapid progress?  
Because when you hurry, you're more likely to make mistakes.  
And those mistakes are what gets programmed into your muscle memory!

# Owning Mistakes

**“If you play it wrong *three* times, you own it!”**

It takes only a few repetitions to incorrectly program muscle memory. It’s maddening to “own” a mistake. Even when you know the problem area of the song is coming and you consciously warn yourself to avoid making the mistake, you’re likely to repeat it, because it’s stored in muscle memory.

The solution is to go back over the faulty song section several times *extremely slowly* until you successfully reprogram your muscle memory to play it correctly.

To reduce errors, practice slowly and follow the DIRT-FT (dirt-foot) R

**Do It Right The First Time!**



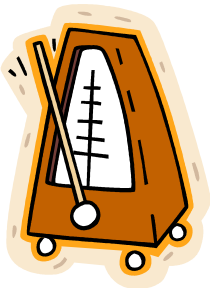
## Mental Practice

Although conscious thought can interfere with stored muscle memory, you can enhance your learning progress by consciously feeding messages to your subconscious brain. A famous experiment once demonstrated that basketball players who *imagined* tossing balls into baskets improved as much as players who actually did so. Similarly, imagine yourself playing the piano. Examine the written music and visualize the fingers you’ll use and the keys you’ll press. Look for patterns and repeated song sections. When you sit down to play, you’ll play better.



## Physical Practice

When you practice a song, don’t just mindlessly repeat the same motions over and over. Focus on what you want to improve. Challenge yourself, but don’t overdo it. Too much practice can lead to finger or wrist fatigue or pain. On the other hand, if lack of time is an issue, practice in short, 10-minute sessions every chance you get. Ironically, you may find that after an extended non-playing period, song passages that used to be difficult have become easier. It’s as if your subconscious muscle memory continues to organize itself even when you’re not practicing. But playing piano is a complex physical endeavor, so don’t expect miracles. Just aim to make each practice session enjoyable.



## Practice The Song At A Uniform Speed

A common tendency is to race through the easily played portions of a song only to bog down, or come to a screeching halt, at the harder sections. This results in uneven play and increases the time necessary to master the song. Urge yourself to go slowly during the easy parts, or even better, practice the hard parts alone until you can play them quickly enough to combine with the easier parts.

## Practice the Entire Song

When practicing a song, it seems natural to start at the beginning each time. One problem with this is that after you’ve struggled to master the first part, it’s easier and more gratifying to keep playing it than to tackle the challenges of the next part. Another problem is that you may tire of the song before you ever completely learn it. Instead, force yourself to skip over the first part and practice the next part as if it were a separate song. As you separately master each of the parts, combine them together a few times, then shift your focus to the next part until you’ve learned the entire song.

# Practice Signs

If desired, print these signs (on thicker paper or cardstock if you have it), cut them out, and display them near your piano as practice reminders.

