IV

Getting Into the Zone

And How to Become More "Pressure-Proof"

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Choking

Why It Happens, and How to Prevent It

So why *do* we choke?

Is it related at all to how much we've practiced? Or how effectively we've practiced? Is it purely a function of how nervous we are? Or, are some folks simply more prone to choking than others?

Many of the most memorable examples of choking are of championship-winning athletes who suddenly experience an inexplicable drop in performance at the worst possible time. Greg Norman, for instance, had held the world No. 1 ranking for 331 straight weeks, and finished his career with 90 tournament titles. And Jana Novotna finished her career with over 100 tennis titles.

So it doesn't seem to be a matter of skill, experience, talent, or practice per se. And the research in this area suggests that the causes of choking are indeed more mental in nature - and that they are specifically related to focus.

In the next couple lessons, you'll learn the two things that can lead to choking, and why attention control may be the key not just to getting in the zone, but helping us become more choke-resistant as well.

IV | Lesson 1.1

What Causes Choking Under Pressure?

Two Theories From the Research on Choking and Performance

Researchers have long been curious about the phenomenon of choking, and over the years, two different theories or mechanisms have been identified that seem to explain why this happens.

Theory #1: Explicit monitoring

The first, is the explicit monitoring or conscious processing theory, which suggests that under pressure, we tend to think too much about the physical execution of motor movements, and try to micromanage all the individual steps, instead of trusting our "muscle memory" to take care of the job. The problem of course, is that once a skill becomes automatic, thinking about what exactly your thumb, elbow, wrist, and fingers are doing at each step of a tricky shift totally screws up your ability to execute what should be a fluid, effortless motion.

Indeed, former University of Chicago psychology professor (and current Barnard College president) Sian Beilock's research suggests that when we're first learning a new skill, there's a lot more activity in the cerebral cortex, which is responsible for conscious thought and higher-order processes.

Watch!

Why we choke under pressure - and how to avoid it (@TED)

But as we begin to get the hang of things and are able to execute the skill up to speed, with more consistency and accuracy, control of the motor movement sequencing is passed along to the cerebellum, which is then entrusted with the responsibility of executing these movement patterns at the appropriate time.

Unfortunately, we don't have conscious access to the cerebellum, so when we begin thinking too much about technique and attempt to exert too much deliberate control over our muscles, we shift control back to the cerebral cortex and disrupt the cerebellum's ability to run off these motor programs automatically, and thereby end up making mistakes.

If you've ever had to sit or stand on camera, and were told to "just act natural," you know how difficult it can be to do this when you're suddenly all self-conscious and don't remember how to sit in a chair like a normal person.

Theory #2: Distraction

The second explanation for choking is distraction theory. Which suggests that under pressure, our focus goes away from the music to irrelevant thoughts – like thinking about the other people in the room, and worrying about what they might think if we mess up. But since our brain can really only concentrate on one thing at a time, the relevant and irrelevant thoughts end up competing for the same limited attentional resources, and something has to give.

For instance, playing solo Bach was always a challenge for me, not just because of the technical difficulty, but because I was always a little worried about the potential for memory issues. But ironically, the more I worried about having a memory slip, the more likely I was to have one, because these worries prevented me from thinking about my memory cues and staying in the moment.

Two theories, but a common pathway

So there are TWO things that could make us choke? Agh, how screwed are we?

Ha, yeah, but did you notice that the two pathways to skill failure both have something in common? They both relate in some way to focus - or the thoughts that are going through our mind during the execution of a skill.

The key to becoming more choke-resistant thus relates to attention control, which is the skill that this module will be focused on (ha!).

Before we get into that though, there are two things I want to go over, that will help you have a better understanding of the principles underlying the strategies that the next few practice challenges will be devoted to.