I Can't Play Fast!

It's an age-old lament. But what does it even mean? In the technique-obsessed '80s, where every empty garage housed a drum kit and every basement a Marshall stack, "You're fast!" was the ultimate compliment. And in its vagueness it perfectly embodied our unscientific thinking on the topic. It had nothing to do with picking technique, per se. Eddie's tremolo? Fast. Eddie's tapping? Fast. Billy Joel's double-fisted middle C hammering in "The Angry Young Man"? Fast.

The source of the speed, and thus the impressiveness, was as irrelevant to us as the inside of an Atari cartridge. I remember one of my uncle's friends playing me a track of some kind of virtuosic bluegrass duo, and when the picking ratcheted up in the solo section, he excitedly proclaimed, "And that's acoustic -- so that's really fast!" It was as if picking technique on acoustic guitars was somehow measured in dog years. The funnier part was that I remember being in total agreement: of course acoustic guitar was hard. It was definitely harder than electric guitar. Everybody knew that. And that's why only hard-core music school purists like Al Di Meola, or mystical jazz savants like John McLaughlin, even attempted it.

Of course this made no sense. What we were both confusing is the fact that legato techniques, and thus slippery fretting-hand lines in the Van Halen and Vai mold, are less likely without the insane compression of a tube amp cranked up to 11. But the connection to
picking technique was completely illogical. The geometry of picks and strings was essentially identical between the two instruments. And so were the mechanics.

But this kind of logical lapse was commonplace back in the day. Nobody thought about the why. And the background radiation of this type of confused thinking still lingers, and informs much of our current attitudes toward technical development.

What is Fast?

In order to solve the puzzle of picking technique, we need to define what it is in the first place. Ironically, it turns out that raw speed isn't the biggest obstacle. If the internet has accomplished nothing else for guitarists, it has outlined more completely than ever before the contours of the global guitar community. There are tons of great players out there.

Sure, a Van Halen-esque figure who simultaneously defines the musical, sonic, pedagogical, and fashion zeitgeists is still a generational occurrence. But in terms of simply executing the techniques, it's obvious to even casual observers that there are many players who can now do this. This was clear back in the day, when the sounds of Eruption tapping emerged from bedroom windows across the world seemingly overnight. But thirty years later, the vast and growing litany of viral video "Flight of the Bumblebee" attempts demonstrates that raw hand speed itself was probably never in short supply.

Instead, the real problem is accuracy. To produce intelligible sound, the pick must strike the string at the instant the fretting finger locks the string to the fret. This synchronization must continue even as the melodic flow moves from one string to another. If this synchronization falls below a certain fairly high tolerance threshold, notes cease to be musically recognizable. At that point, even virtuosic levels of hand
speed simply devolve into two simultaneous but unrelated movements, and not really guitar playing at all.

The Six Components of Picking Technique

And when we look at what is required mechanically to maintain this tight synchronization, we quickly uncover an entire system of mechanical challenges, each of which solves a different facet of the problem.

1. The Motion Mechanic

To play notes with a pick, we need a way of moving it back and forth in the classic alternating down-up sequence. Historically, this movement, or motion mechanic, has been the most visible and thus overtly discussed element of picking technique. Their sheer variety has been a source of fascination and bewilderment. While rotational forearm techniques are probably the most common, elbow and even finger-based motion mechanics are also possible. Yngwie Malmsteen, to take a highly relevant example for Cracking the Code, uses all three. In this lesson we'll examine Yngwie's rotational motion mechanic, as it is a highly capable all-rounder, and also a great introduction to rotational techniques used in other styles like gypsy jazz.

2. String Tracking

If all you could do were move the pick back and forth, you'd never be able to play on more than one string. Moving from string to string is entirely separate mechanical problem, and this becomes increasingly clear as the distances get larger. For example, if you imagine a line that moves from the first string to the fourth string, skipping over the others, this is a distance that the picking motion mechanic is simply not big enough to traverse.
Instead, string tracking typically requires relocating the motion itself from one string to another. Sometimes this involves tracking the entire forearm across the bridge like a phonograph arm. You can see this type of string tracking clearly in the sweeping technique of Michael Angelo Batio, where the upper arm and forearm work together in a sawing motion to push the hand in a straight line across the strings. Alternatively, Paul Gilbert's string tracking technique relies more on a clock face-style sweeping of the wrist to refocus the picking action. In his case, the pick traces a curved path across the strings thanks to the relatively small radius of the wrist's sweep.

Whichever system you use, the point here is that string tracking is always happening. I often refer to "string tracking" colloquially as the phonograph style movement of the upper arm and forearm, because it's the most visually distinct from the picking motion itself. In the phonograph solution, it's obvious that tracking and picking are two completely separate activities. However in the Gilbert scenario, this is no less true -- it's simply a different type of movement that's performing the tracking.

3. Anchoring

Anchoring is the tendency to brace the picking arm or hand against the guitar as a point of tactile reference. The most common form of this, at least in electric guitar playing, is to rest the right hand palm on the bridge saddles. In addition to providing a reference point for focusing the motion mechanic on the correct string, it also allows for modulating the amount of hand-to-string contact via palm muting -- a nearly essential noise reduction and tonal control technique for high-gain amplifiers.

By contrast, many acoustic players use a forearm anchoring strategy, where the forearm contacts the body of the guitar closer to the elbow. This is frequently complemented by a finger brace on the pickguard to
form a kind of bridge over the strings. This makes muting more difficult, but this is less of a concern for acoustic players, where unamplified string noise is less audible.

The choice of anchoring strategy has important implications for string tracking. For example, a hard bridge anchor, that contacts firmly at one point and never moves, will interfere with the phonograph arm style of string tracking. Instead, players that do this tend to rely more on clock face string tracking. By contrast, an anchor that moves will more effectively permit transporting the entire picking movement from one string to another unchanged, with the phonograph technique.

In most cases, a blend of both tends to occur. Even players who anchor firmly to the bridge will tend to move this anchor somewhat, using the phonograph arm technique, as they play across the strings. If the phonograph movement is less than the actual distance from the top string to the bottom string, then clock face movement makes up the difference.

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