



LET'S ROLL: Ask Dr. Banjo

Tune It Or Die

Pete Wernick

Yes, that sounds severe. I was taken aback by that catchy phrase on a t-shirt worn by one of the nicest people I know, Scott Thile (Chris' dad). I thought, "What evil lurks...", then

remembered Scott was a piano tuner, and in professional tuning, the only place to set the bar is "high". Everybody likes music more when it's in tune.

Prior to electronic tuners, 30+ years ago, it was easy to tell who were the pro bands. The pros were in tune. Ever notice on Flatt & Scruggs live shows they were always in tune? *How did they do that?* Good ears and vigilance were the only resources back then. Nowadays, our fine \$25 clip-ons help us greatly, but vigilance and speed are still as valuable as ever. And banjos are still the hardest instruments to tune! More on that later.

One instrument out of tune can cause a contagion. Someone else hears it and starts to tune by ear to that sound (should instead check their own tuning and if it's right, sit tight, or firmly play the correct note.) Others join in, usually patience runs out, and someone starts the song before the tuning is done. Oww. Poorly tuned instruments tend to mess up the singing too, and an otherwise-tight band can lose its confidence and its edge as they start realizing it doesn't sound right. Or else... people just stand there and tune. And tune and tune. And if it's the banjo, often as not a dim-witted drooling-out-of-both-sides-his-mouth emcee will start telling banjo jokes. I'm glad to have the chance to say this in a public forum: *That is stupid, amateurish beyond belief.* Imagine if Flatt or Bobby Osborne had **ever** told a banjo joke while Earl or Sonny was tuning! (Of course, Earl and Sonny were fast.)

None of this need happen if each player has a reliable tuner and uses it conscientiously, especially with any change of capo. But that's just part of the story.

Vicki in California asks about the effects of temperature change.

"Today I went to a jam and the banjo was in the "cold" car for only about a half hour and when I got to the jam it was "cold" or it just wouldn't tune...my

electronic tuner was all over the place... is there a period of time that it generally takes for the banjo to "normalize" after transport? it wasn't even that cold today!"

Vicki,

Banjos can be squirrely, not so much due to transport, but more likely from temperature changes. Even a small temperature change can *slightly* loosen or tighten the head, which raises or lowers the bridge *by a tiny amount*, which can stretch or loosen strings—*enough* to change the tuning. So temperature changes are problematical.

Performing banjo players in particular need to take note of sudden temperature changes. A well-cooled backstage is not a good place to tune before hitting a 90- or 100-degree stage. You'll go right out of tune (flat)! Better to do a final check-up on stage as the band is being introduced. And generally, tune when the banjo is stabilized, by the stage or someplace where the temperature is about the same as the stage.

The David Letterman Show studio temperature is 50 degrees (have you ever seen anyone perspire on that show?). So when our 5-banjo band in 2005, Men With Banjos, finished our sound check we actually left the banjos in the studio just out of camera range. When it was time to play two hours later, they were still in tune, no adjustment needed. Taking them backstage (and fidgeting on them) and then back out just before playing would be asking for trouble. (By the way, if you'd like to see our *in-tune* performance of *The Foggy*, see the Video File on DrBanjo.com.)

There's so much talk about great banjos and setup and licks and tricks, but let's remember, if it's not right in tune, that's all spoiled. And keeping a banjo in tune means getting on top of and staying on top of many factors.

Sometime when it seems appropriate, do a little education of your fellow

musicians. Not when they tell banjo jokes, but sometime when they might actually listen respectfully.

Now, *fiddles* are the hardest instruments (by far) to *play* in tune, but:

Banjo is the hardest instrument to tune.

1. I've covered the effects of even minute temperature changes. Banjos are the only instruments in our music where the bridge sits not on a solid piece of wood, but on a completely flexible piece of material about 1/100th of an inch thick, and suspended across an 11" diameter circle. Of course it will flex!

2. Banjo necks are long and thin—much longer than the neck of any other bluegrass instrument (yes, even the bass). Long and thin, combined with the fact that wood flexes means one string's adjustment can affect the tuning of the other strings. Huh, why? A change in one string's tension can slightly affect the neck's bow, which then affects all the other strings. So going to C tuning can be a problem. Lowering the fourth string from D to C lets the neck straighten a bit, slightly tightening the other strings: sharp. (I'll wait while you take out your banjo, tune perfectly to G, then drop the 4th string and recheck.... See? Your C on the 1st string isn't quite C any more.) And then when going back to G tuning, *all five* need retuning. Sorry!

3. And... the banjo is so alive with sound that when overtones don't match up just right, the banjo just doesn't sound right. Even when your clip-on tuner says it's right (yes, frustrating). That can happen when the bridge is in the wrong place (another typically banjo-only problem), and it can also happen when the strings get worn, dirty, or dented up from underneath by repeated fretting. So the moral of this one is: "Change your strings!"

If you've not changed your strings since the last decade—you know, the "oughts", that ended this past January—do it today. All string companies that advertise in these pages will appreciate you, and so will the other musicians and people (including you) who can hear when you're right in tune or not. Tuning will go faster now.

4. Then there's capoing (only banjos and guitars do that), which causes problems too. *Count on it* (well, unless you have a compensated bridge). The 3rd string routinely goes sharp when the banjo is capoed 4 frets (as in going to B). Since

most of us have not found a compensated bridge we like as well as our favorite straight one, that means being prepared to slightly lower the 3rd after capoing to B—and then raise back up when going to “open”.

5. All you need is a slightly worn 2nd fret under your third string (do you ever make a D chord or an F?), and the string will go a little more sharp than with a new fret. Why? The string departs the top of the fret a little closer to the bridge when the fret’s top is flat rather than a round peak. So if you’re about to go into the studio, it’s a good time to have your most-used frets at least recrowned, or replaced. Then the 3rd string will be in tune on *both* your open string and when you play a D!

So add it up, and banjos are hard to tune and keep in tune! Earl Scruggs’ playing sounds great partly because his great ear and his diligence help him note perfectly despite all these hazards (he never uses a tuner). On live shows, he manages to quickly switch between C tuning for *Soldiers Joy* or *Farewell Blues* or *Ain’t Gonna Work Tomorrow*, and D tuning for *Reuben*. What a guy!

A cool anecdote about Earl: He had that horrible fall about four feet off a stage after a show in 2005. He broke a knee, but his banjo was not damaged. Horrified people at the scene were reassured when Earl commented shortly after the fall that it had “knocked it in tune.”

What a guy!

OK, to be continued. The only thing that takes longer than tuning a banjo is *talking about tuning a banjo!*

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