Subject: Debunking audiophile voodoo
Posted by animix on Thu, 12 Oct 2006 03:17:35 GMT
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An interesting and enjoyable read.

http://www.ethanwiner.com/believe.html

Subject: Re: Debunking audiophile voodoo
Posted by dc[3] on Thu, 12 Oct 2006 04:35:33 GMT
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Oh, comb filtering is real alright. It is a major factor in sound system design I deal with every day. It does not *begin* to explain how we can hear things that are supposed to be unmeasureable and/or masked. The idea that now, everything is measurable is rubbish.

This does not excuse the voodoo peddlers out there, but there is still controversy about this precisely because our brain/ear apparatus still does things that surprise us.

DC

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Subject: Re: Debunking audiophile voodoo
Posted by "Kris" . on Thu, 12 Oct 2006 12:43:57 GMT
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I beleive that everything IS in fact measureable...but, that our ability to know WHAT to measure is te limiting factor. Our specs like THD, TIM, etc don't tell us what 'sounds best'. If differences will show up in our 24 bit/96kHz orginal tracks, and in the 16 bit 44.1kHz CD mix, then they were in fact measured. The problem is, we don't really know what distortion spectrum is euphonic versus harsh.

I think Ethan is out to lunch with his comb filtering argument...yes, its a real effect, but its also something that when kept under control our brains can easily smooth over. Think about it, if his arguments were true, you'd never be able to mix a song as our reference position is always changing.

Cheers,

Kris

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Subject: Re: Debunking audiophile voodoo
Posted by dc[3] on Thu, 12 Oct 2006 15:15:02 GMT
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it's interesting how many "distortion generators" like tubes, exciters, tape simulators and the like we use to make recordings sound more compelling isn't it?

Look, we don't want our profession to simply amount to a bunch of voodoo. We want it to be quantifiable and scientific, and to a great

extent it is. But, I remember when the first high-end speaker cables came out years ago, and most engineers guffawed loudly at them, but quietly, as more of us listened, we found some of these cables made a real difference (and some were complete crap) In the 70's it was not uncommon to have well-known and respected engineers saying that there was no difference between high-end cables and THHN electical wire, Romex, or lamp cord. No one says that any more. We have found that some cables indeed increase detail, and it most certainly is *not* comb filtering, since the difference is apparent and profound no matter where you place your head.

Now, the phenomenon of people expecting some high-priced doodad to sound better, and so it does, is real indeed. But so is the phenomenon of some tin-ear Mr. Science wannabe claiming something isn't there because he cannot measure it or explain it.

It is just as silly and incompetent to convince yourself that something you hear is not there as it is to convince yourself that something you wish to hear IS there.

So, how do we know the difference? We develop a hypothesis, attempting to isolate the phenomenon and its possible explanation, and design an experiement to understand the phenomenon. Sometimes we succeed.

Years ago, I bought a Nordost AES digital cable to use between am A-D convertor and a DAT. I did not expect to hear anything, but my friend who sold it to me was so excited about it, I got one on-approval. Well, it made quite a difference in small-signal detail. (when the orchestra plays soft passages) and on other areas as well.

How could this be? Hell, the conductor heard the difference, and one of my mentors, a Ph.d in the physics of sound (who poo-poohed the whole idea) changed his mind at the first 3 seconds of music.

I was so annoyed at this, that I called Nordost up and asked what was going on. They actually told me. While they claim some small improvement from the silver conductor and all that, they then asked me how long the Canare digital AES cable I was comparing the Nordost to was. 1 foot said I. Well, they said to make up a 10 foot Canare cable and compare the short one and the long one. Turns out that most of the improvement from the fancy cable was due to the extra length (it was about 4 feet as I remember) which Nordost attributes to reflections in a too-short cable. I could hear no significant difference between the 10 foot Canare and the Nordost BTW, and I never bought another Nordost digital cable.

So, no all the high-end cable folks are scummy!

We simply can hear things, at times, that we cannot yet measure.

While this severely complicates the world for those who want it nice and simple (you mean some of that actually WORKS??, oh-hell, now I have to figger out which works and which doesn't?) and it opens us up to charlatans, it is still superior to either the ignorance of the high-end voodoo salesmen, or the self-imposed ignorance of those who cannot find a phenomenon on their present equipment, so dismiss it.

I was analyzing a mic the other day, and it wanted to feedback, really bad, about 8K, but the analyzer showed nothing. So, I switched the analyzer from 1/3 octave resolution to 1/12 octave and bam, there it was. A narrow band spike in the freq. response.

Now, if this was 1982, and all we had was 1/3 octave analyzers should I have claimed the spike wasn't there, even though the feedback that resulted from it almost tore your head off?

DC

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Subject: Re: Debunking audiophile voodoo
Posted by "Kris" . on Thu, 12 Oct 2006 17:08:06 GMT
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"We simply can hear things, at times, that we cannot yet measure."

I'm sorry, but I disagree. In both your examples, had you recorded the signal(s) via pretty much any modern A/D converter and analyzed it off-line using readily available software (like Matlab), you'd have seen the difference as well as have heard it. The technology was there to detect those differences, but you didn't have it handy...that doesn't mean it wasn't measureable though.

One thing I agree with Ethan about is that its the first 30dB or so that really matters. Stuff that makes differences down around -80 dBFS or so is really low on my priority list. I'd rather put more money into having a better room.

Cheers,

Kris

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You are, of course, assuming it is... I suspect that utter confidence in our present tools to measure everything may be as misguided as absolute trust in golden ears...

Just a thought.

>One thing I agree with Ethan about is that its the first 30dB or so that
>really matters. Stuff that makes differences down around -80 dBFS or so
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>really low on my priority list. I'd rather put more money into having a
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>room.

A better room is most important. An exception is classical music where small signal stuff is vitally important, and the room you record in is likely to be quite decent already.

best,

DC