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Subject: Thought experiment & why sonic indistinguishability is not a bad thing

Posted by [akhilesh](#) on Tue, 10 Jan 2006 17:05:44 GMT

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While the subject of sonic indistinguishability of certain components is unpopular, especially on the more idiotic special interest websites like the taco bell forum, here are some further thoughts.

1. A thought experiment: Suppose you were a subject in an experiment. You were asked to listen to a signal, that was emanated from an analog transducer (a speaker). This signal (program material of some sort) obviously was represented by a certain waveform. Let us call this waveform S1. S2: Now let us suppose the same signal was slightly altered, so that the 15000-20000 Hz components in the waveform were increased by 0.3 db. Do you think you could distinguish S2 from S1. Clearly, measuring instruments could, but could a human being? The answer is no. S3: NOW suppose we took S1 again and this time increased the distortion in the signal by 0.01%. Do you think you could distinguish S3 from S1, or for that matter from S2? The answer is NO, again. Most solid state amps available today of almost any price over say \$200, differ only in these levels of magnitude, on the frequency curve & distortion. Now, why should we buy more expensive amps then? Is this bad news for anyone? The answer is no, for several reasons: 1. More expensive amps may have more extended operating characteristics. For example, a speaker may go as low as 1 ohm on certain frequencies, and a cheaper amp may not work there. 2. You can buy a ferrari for \$250,000 or a porsche for \$90,000, with the porsche having better acceleration, stopping, skidpad & overall performance than the ferrari. Do you think Ferrari should shut down? No. Many people would choose the ferrari for the name, the way it makes them feel, and the way it looks. A lot of audio jewellery is sold for these reasons as well. The problem occurs when certain unscrupulous manufacturers, magazines & reviewers perpetuate a myth that the more expensive amps have to SOUND better, and try to convince listeners that they should sound better. The truth is always the way to go: they don't sound better, but that doesn't mean you should buy the cheaper amp, unless you want to! Hope this adds more perspective to the debate. -akhilesh PS. To directly answer your point about all solid state amps distorting sound the same way, the point is: if the original signal (WITHOUT an amplifier) and the signal through the amplifier differed only by say 0.3 db from 15,000 Hz on up, you couldn't hear it. So solid state amps do NOT distort or alter the signal in any audible way. There is this thought that solid state sounds dead, but I would say it's the opposite: Tube amps sound LIVE. In other words: tube amps do stuff to recordings that make them sound more live. Solid state amps pretty much reproduce whatever shlock you feed thru them, and a lot of the PM out there IS schlock! -akhilesh