Subject: An audio related topic (of all the nerve!)
Posted by wunhuanglo on Sun, 31 Jul 2005 20:13:37 GMT
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I'm posting this, lifted whole cloth, from alt.audio.equipment because I have no idea how to link to a usenet post, but it's interesting.^^Posted by Arny Krueger *arnyk@hotpop.com* One of the more striking audible/visual illusions is the McGurk effect. The McGurk effect shows that hearing is not believing, when there is also conflicting visual evidence. In fact, visual evidence can completely overcome things that are otherwise clearly audible when presented without the distracting visual evidence.You can even be fully aware of the McGurk effect and its application to your immediate situation, and still be fooled.The "McGurk effect" was first described by Harry McGurk and John MacDonald in "Hearing lips and seeing voices", Nature 264, 746-748 (1976). 1976? This is very old news!An audio recording is played of a person saying a certain thing. A synchronized video of that person saying something else is displayed.Almost all of the time, almost all people perceive a sound that seems to match the video. Surprisingly what they perceive isn't the sound that is there for them to hear.If you listen to the sound track with your eyes shut, you can hear the audio recording quite accurately. Open your eyes again, and you perceive a sound that matches the video. What you perceive does not match the audio.It's amazing that when even when you know the trick and exactly how it applies to the current situation, you can still be fooled again and again. This has happened to me many times. This is not delusion, it is illusion.One of the best web-based demos of the McGurk effect I've seen can be found at http://www.media.uio.no/personer/arntm/McGurk_english.html .Since many common English words that sound alike can mean different things, the McGurk effect can have some striking but highly confusing effects.McGurk's effect is so strong that sounds don't have to be hidden away in words for it to confuse things. As the web demonstration shows, even isolated syllables can be strongly impacted by the McGurk effect.Imagine a comedy sketch based on the McGurk effect. Twopeople have a humorous conversation based on they words they actually say, but the audience sees visuals of the performers saying something else. This little trick could be quite shocking if strong profanity or other highly inflammatory statements were put into the audience's perceptions by means of simple visual effects. Seems like a natural for Letterman or SNL.The sound track would be clear evidence that the performers said nothing wrong, but the telephones at the FCC and network headquarters would no doubt light up like the Detroit River on fireworks night! It might be interesting to have a legal test of comedic McGurking.Applications of the McGurk effect to sighted evaluations of audio components seem quite clear. During most sales presentations and home demonstrations, listeners are given visual information indicating that sound quality has changed, usually that sound quality is greatly improved.The visual information that is presented during audio equipment demonstrations is often quite elaborate. Consider a comparison of a vacuum-tube power amp with its richly glowing vacuum bottles, and a solid state power amp in a darkened plain metal box. Consider a high end vinyl playback system with artistic polished metal shapes and a deep ebony disc spinning hypnotically, as compared to a dinky little digital player with a tiny ugly light green glowing screen on its front panel.We know from our level-matched, time-synched, blind listening comparisons that the audible cues are often subtle, to say the least. Therefore it is no surprise that visual evidence can lead to perceptions that differ from the sound that is in the listening room.Considering what we know about the McGurk effect, it is easy to understand why people will report perceptions that agree with the visual cues that they receive no matter what sound is in the room.Knowing about the McGurk effect helps me understand why so many people were fooled by the SET amp and vinyl

demonstrations I saw at HE2005 in New York a few months ago.McGurk's effect shows that visual information is far stronger than would merely suffice to cause people to perceive that one amplifier sounds different from another when they actually sound similar or alike. McGurk's effect is capable of making people believe they hear something that is quite different, even something that is almost the opposite from the sound that is actually in the room.Audio McGurking might explain perceiving favorable sound quality from a gritty-sounding vacuum tube power amp, even though the SS power amp is sonically superior. Or, Audio McGurking might explain why so many perceive that vinyl sounds better than good digital.Sighted evaluations are something like the fundamental principle of stage magic which is distracting the audience away from what's really happening, towards what the performer wants the audience to perceive is happening.

Subject: Re: An audio related topic (of all the nerve!)
Posted by Manualblock on Sun, 31 Jul 2005 21:02:31 GMT
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Arney Kruger; that name sounds familiar? Where's he from? Didn't he own a small audio publication at one time?

Subject: Re: An audio related topic (of all the nerve!)
Posted by wunhuanglo on Mon, 01 Aug 2005 02:24:24 GMT
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Arny's the usenet's #1 advocate for ABX testing - there was a post around here about him debating John Atkinson a few weeks ago.
The Man Who Brought You ABX

Subject: Re: An audio related topic (of all the nerve!)
Posted by Wayne Parham on Mon, 01 Aug 2005 02:53:17 GMT
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Very interesting. Thanks for the post.It does make sense, doesn't it? When considering the whole package, sights and sounds come into play. If we're looking strictly at acoustic accuracy, acoustic measurements and double blind tests should be very good. But when we're looking at the whole enchilada, features, aesthetics and other creature comforts are lumped in there as well as the sound.At GPAF, Earl Geddes said something to the effect that he doesn't care how audio equipment looks, it's the sound he cares about. "If I want art, I'll buy art," he says. Geddes is all about measurements and double blind tests. I agree with him on the testing part, and I think that's where to look when optimizing the acoustics. But I just can't help but want attractive equipment

too. Aesthetics are important to me.If it looks impressive, it looks impressive. You know what I mean?

Subject: Re: An audio related topic (of all the nerve!)
Posted by Manualblock on Mon, 01 Aug 2005 12:28:27 GMT
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Thats what she said.

Subject: Re: An audio related topic (of all the nerve!)
Posted by GarMan on Wed, 03 Aug 2005 13:47:44 GMT
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The only thing I'm disappointed by is that this wasn't posted in General Forum to get more exposure. The link was an excellent demonstration of how our audio perception is linked to visual cues. It also leads me to consider to what degree all five of our sense influence each other.Here's an interesting thought. If visual cues can influence what we hear, should it not be considered as a legitimate feature of an audio component? If it works out that music sounds better to the human brain when we're looking the pattern of walnut veneer vs maple, should we account for it as a contribution as opposed to a distraction?G.
