

# More: The Selling of Audio

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## ABSTRACT

Audio demonstration is frequently controlled by the seller. The selling methods used tend to bias the listener toward the seller's system and often mask long-term satisfaction estimates. The paper documents frequently-used selling techniques and offers suggestions for successful auditioning.

## INTRODUCTION

The lights dim as the music begins to play. A hopeful and smiling salesperson assures the anxious listeners that something special is about to happen... and happen it does! A switch is silently thrown and the state-of-the-art in audio takes a giant step forward! Swirls of sweet sound fill the air: tighter bass, clearer highs, more punch, better stereo. Pulses race as visions of ad copy flash through the creative (if perhaps less technical) minds. It is perhaps months and thousands of dollars later before enthusiasm for the subject system has dimmed, but dim it usually does. What happened?

## THE CONCEPT OF "MORE"

The above scenario has occurred countless times and will doubtless continue to occur. What has gone wrong is that when the new effect was switched in, the variables of volume, bass and/or treble, number of sources, etc. were allowed (or worse, deliberately made) to increase, biasing the short-term listening situation in favor of the demonstrated system. The elements of this biasing I call "MORE". Adding "MORE" is like putting menthol and camphor in snake oil. If the oil really works, why spice it up (maybe to hide the smell)? Unfortunately, even for skilled listeners, "MORE" and the demonstrator's enthusiastic suggestions are very difficult to ignore. Small (1dB) volume boosts are not even heard as boosts, but as 'clarity' or as some other attribute.<sup>1</sup>

A recent example of the effects of "MORE" was observed in the rapid rise and fall of interest in reverb-rich DSP room simulation setups. When the "Jazz Club" was engaged, the original signals (soloist, instruments, etc.) were maintained at about the same level while the reverb effects were added. The overall volume was thus increased ('MORE'). Eager customers rushed to add this hot new feature to their equipment lineups. As the novelty wore off, typical listeners adjusted their volume back down to his or her preference, just as before. The main signals now seemed immersed in excessive reverb and the soloists sounded distant. Most customers didn't like the effect and turned it off. The lesson: mixing studios usually add just the amount of reverb, etc. that customers prefer (or they don't stay in business).

[Note: Adding extra reverb qualities to a vehicle's rear speakers may be useful. Studios today mix stereo for two speakers and apply appropriate ambiance for that configuration.]

## TYPICAL DEMONSTRATION CONDITIONS

Commonly seen are demonstrations where additional speakers (often rear speakers) are switched in only when the 'correct' system is being auditioned. Potential customers speak of being 'surrounded' and the new effect is credited. Other simpler and direct ways of feeding additional speakers can prove equally 'surrounding' (i.e. Dolby Surround or Hafler's simple L-R & R-L rear speakers connection). Music provided by most prospective suppliers is typically well recorded and rich with stereo information (unlike the typical music enjoyed by the vast majority of listeners). Often heard are jazz, classical and chamber music selections. These types of music tend to add diffuseness to systems which untrained listeners may attribute to the auditioned system. Complex technical explanations usually precede or accompany demonstrations. Patents are typically mentioned (though they often refer to a method of manufacture or assembly, etc.). Brand names with artist's renderings flavor the proceedings. Data from

other evaluations and from surveys may be shown. The '?' symbol is found on many descriptive words. Wow! When trained evaluators insist upon more controlled listening conditions or suggest that "MORE" is being added to spice up the demonstration, dazzled spectators and the product promoters feel that the "N.I.H." (Not Invented Here) factor is poisoning the demo. Experienced engineers learn to remain quiet for fear of appearing negative.

## NOW, FOR THE DEMO...

So...now you're about to witness a demonstration. Before the presentation starts and the lights dim, there are some controls you should insist upon for your audition:

- An A-B style test should be performed. Audio demonstrations without comparison are virtually worthless. For example, characteristics attributed to a new amplifier may be in fact due to the excellent speakers used in the demonstration. Many great leaps forward evaporate in the presence of careful A-B comparison.
- Overall volume, as perceived by the listeners, should not increase as any effects are switched in. The grandiose claims typically made for audio effects would imply that they should remain great even if their volume is a little softer...right?
- Perceived bass and treble levels should also remain the same. If the system gets brighter (even if its due to "time/phase replenishment" or something other than straight equalization), ask for an equalized alternative for comparison. Equalization is relatively cheap.
- Additional speakers, if not used for "A", should not be used for "B". If "B" requires additional speakers for the subject system, figure out something simple for the speakers to do with "A".
- If possible, neither you or the person doing switching should know which system is energized (double-blind testing is well accepted in the non-audio world for subjective testing, and A-B-X testing<sup>2</sup> is even better). If feasible, listening evaluation should occur before the sales presentation begins.
- Listening positions should not be restricted. Car audio proposals should never be auditioned in a center seating position (until steering wheels are in the centers of cars, as they ought to be). • If speaker pairs are being compared, try to arrange the rights and lefts of each of the pairs to be as close together as possible, above and below each other if practical.
- Bring your own CDs and use music typical of your customers' tastes. Listen to your own CDs first. If your demonstrator insists on his/her CD's for her/his system, use those same CD's in your system. Participating in correctly managed A-B tests using music which your

customers typically enjoy can help you correctly judge the elusive characteristic of long-term listening satisfaction. In essence, long-term satisfaction closely parallels short-term satisfaction if and only if the short-term evaluation is scientifically done

## A BRIEF TOUR OF MY YEARS OF DEMOS

The writer has witnessed many "breakthrough" demonstrations; a few with genuine benefit and the vast majority with "MORE" and little else of a positive nature. I have, and you will, hear some rather consistent phrases from the "sonic breakthrough" promoters. Here are a few of my favorites along with some comments:

- **“It’s not really louder, it just seems louder.”** If it seems louder, it is louder, period. If a carefully placed microphone indicates something different from what you’re hearing, put the microphone where you’re hearing.
- **“The volume gets louder because of this special effect.”** Developing a button to boost volume, bass or treble is cheap and nobody pays royalties. If the effect is worthwhile, it will stand on its own without "MORE".
- **“Listen to all the sounds you couldn’t hear before.”** The "mix" of sound designed into the original recording may well have been altered by the system and is often more reverberant and less intimate. Studios pay professionals to mix sounds that people like, so be careful about systems that do mix modification. Remember, if you add more reverb and side sounds, the volume becomes louder and the user may well turn it down, reducing intimacy. This is one reason why long-term reactions to some systems are so much poorer than the favorable initial reactions.
- **“You can hear stereo all over the room”** Certain speaker systems seem to accomplish this, but if this is done by electronic effects, listen carefully. What you may hear "all over the room" is likely the side sounds and/or ambiance emphasized by the effect. Are the instruments really still spread about a wide stage when you move off center?
- **“See how mixing in frequencies up to 100 kHz. adds to the realism of the sound”** Testing concepts like this show that frequencies in the normal hearing range are being substantially modified ("MORE"?).
- **“Isn’t this system spacious?”** Yes...but do your customers really listen to fusion jazz recorded with wide-spaced microphones! How spacious is the system on their typical music (available in the top-40 racks or on your local radio station) ? Some systems sound downright monaural on average music, especially in the relatively noisy environment of the automobile.
- **“Big stars like (insert name of star) love this effect.”** Big stars are involved with production, not re-production (there are some exceptions). Their mixing

engineers will listen to and adjust their product before it is heard by the general public. Besides, (insert name of star) couldn't challenge the promoters with the knowledge you and I have.

• **“We’ve showed it at other places and everyone is excited...why not you?”** Congratulations! You controlled the demonstration effectively.

## CONCLUSION

Great sound has been and can continue to be produced by correct system design and attention to detail. New ideas rarely give relief to the need to do things right nor do they often bend the laws of physics or psychoacoustics. It could be, however, that new effects and systems will come along which will significantly enhance the listening experience on a long-term basis. At my company, as well as other OEM's, we and our customers are always interested in any new audio processing idea or system concept that works. When we evaluate your system, I can promise you we will give it a fair, but controlled, evaluation. If you have a system which increases customer satisfaction and generates excitement without "MORE", please give us a call.

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## REFERENCES

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Please note that this paper has been revised to correct some grammar and to include the author's new email address.

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