

Blind Listening To Cables... Can we hear the differences and if so, does it tell us anything?

by Roy Gregory

Hi-fi has, and always has had, more than its fair share of sacred cows: ideas or beliefs that become articles of faith for their advocates. Amongst the most vociferously attacked and defended is the whole issue of cable sound, with available views running the gamut from "all cables sound the same" through to "you should spend the lion's share of your budget on cables and rely on basic electronics". The truth, as is so often the case, lies somewhere in between, but we have garnered considerable criticism for our interest in the whole topic of cables, how to get the best out of them and just how much it makes sense to spend.

Along the way many of those critics have rather missed the point, mistaking exemplars for advocacy, and the attempt to develop a general approach or strategy for individual product promotion. There are those incensed by the cost of the cabling we use, and those who think the whole exercise is lunacy. In short – expensive leads are a rip-off that make little or no difference and we're all delusional.

Difficult to resist then, the opportunity to put all these things into some sort of context, and what better way than blind listening? After all, those who are most sceptical of cable quality are also the most vocal advocates of blind testing – and vice versa. The opportunity then, is not to simply test the validity of those claims made for the sonic benefits of superior cabling, but to examine the whole issue of blind listening itself. In other words, to test the test – to consider what it tells us but also what it doesn't. After all, a key issue with any methodology is the influence that it itself exerts over the process.

How the test was done...

The problem of course, is in devising an appropriate test or set of tests. Way back in Issue 1 we carried out a similar exercise with budget leads – with notable success. As a result, I opted to use a development of the same format, employing the same checks and balances.

The basic set-up involves a blind, panel test, subsequently repeated with the same test products but a different system, thus allowing us to compensate for and also investigate the issue of system matching. Sounds simple but it's not without its complications. The test

group consisted of five

expensive cable sets as

well as a budget combination, the intention being to assess the audibility of differences between cables, as well as whether or not the expensive cables outperformed the basic pairing. Secondly, there was a spread of price and approach, with different materials and constructions in an effort both to maximize the sonic differences and see

to what extent the cost/performance equation held true. The tests themselves involved a panel of three listeners who sat en bloc. It would have been better to conduct separate listening but it would have been unwieldy to say the least. The sessions took all day as it was! Instead we simply banned any discussion during the testing in an attempt to prevent undue influence.

For each test series, the panel were first played one of the expensive cables, without its identity being revealed, to set a level of expectation from the system and act as a control. The six samples were then played, each one with three different pieces of music, the control set appearing for a second time. The first of the six was marked as a 10, each following sample being marked up or down in comparison.

This differential marking system gets over the issue of establishing a scale for what is, after all, a completely arbitrary judgement, indicating as a primary response

▶ preference as opposed to rating. In terms of relative performance, it's a far more meaningful gauge. On the second series we adopted the same approach but a different running order and choice of initial control as well as the different system.

In both cases we went to great lengths to ensure that the identity of the cables was concealed, and whilst the drapes between the speakers and in front of the system would have had their own influence on the sound, they're an unavoidable evil if blind testing is to be achieved.

The scores were entered on preprinted response sheets, along with comments regarding the listener's response to each cable. These written notes deliver a valuable expansion to the simple numerical scores, often helping to explain apparent anomalies.

The systems used...

The systems chosen were designed to be both sonically and qualitatively different, in an attempt to both eliminate or at least reduce the possibility of system dependency as well as examine the audibility of cable differences in lower resolution as well as high-end systems.

The first system used consisted of the following equipment:

Burmester CD001 CD player Hovland HP100 valve pre-amp Hovland RADIA solid-state power amp ProAc Tablette Reference 8 Signature loudspeakers IF Designs Tallis loudspeaker stands

The system was placed on a Quadraspire rack and powered up using a Shunyata Hydra distribution system and power leads, chosen on the grounds of their performance and the fact that they are 'neutral' as regards the interconnects and loudspeaker cables under test, thus avoiding any unwanted synergy between mains and signal cabling. The speakers were single wired and all interconnects were single-ended. Although this is the simplest possible configuration, the variety of different plugs and spades on offer made the change overs far from straightforward.

The more modest system comprised:

Burmester CD001 CD player Sugden a21 integrated amplifier Royd RR2 floor-standers I opted to employ the same CD player as it meant that I only had to keep one digital source connected, preventing possible problems of interaction. The systems were set-up on a Thursday in the large listening room at Phonography in Ringwood, the tests taking place the following Monday when the shop was closed. This ensured that everything was well warmed through and ready to go once the panel assembled.

The music...

As described, we used three selections for each set of blind tests. First up was the fragile delicacy of Janis Ian's 'At Seventeen', chosen for its natural, unforced,

open and detailed sound. Whilst just about any system should sound good on this, it's adept at revealing tonal and spatial license, especially to familiar yet particular voice. This was followed with 'Hey, Bossa Nova' from the

incomparable Elvis. An
excellent and extremely
busy recording this
revealed the ability of the
cables to keep everything

separate yet in time and in proportion. Any propensity to exaggerate, especially in the bass,

wreaked havoc on the musical integrity and dance rhythm of the track. Finally, we heard the Adagio ma non troppo from the XRCD of the Dvorak *Cello Concerto*, with Gregor Piatigorsky and the BSO under Munch. Perhaps the least obviously demanding of all, this track ruthlessly reveals inner instrumental texture, intra-instrumental balance and the control of tempo. It's languid pace conceals an inner tension and vitality built on the relationship between soloist and orchestra. The phrasing should be perfection, with Piatigorsky's mastery obvious to all. Sadly, this isn't always the case...

On the second set of tests, the Janis Ian track was replaced by Aimee Mann song 'How Am I Different?' as much to relieve boredom as anything else. However, this did have the effect of presenting the modest a21 with some seriously deep and unruly bass to contend with, creating a situation in which the cables with greater bandwidth and dynamic range risked running into trouble by asking too much of the system. A classic conundrum if you're going to use expensive cables with basic electronics.

The other two tracks remained the same, at the



▶ panel's request, their informative character and the accumulated experience with them being both useful and something of a safety blanket, continuity in an otherwise blind environment.

The listeners...

As it fell to yours truly to spend his day on hands and knees behind the systems, I was excused listening duties, which meant finding three willing victims, I mean volunteers... But who? This question is absolutely critical to both the outcome and validity of the tests, defining what they do and do not tell us. Experience and familiarity will play a huge part in the responses garnered, as well as the listener's attitude and approach to the test program. Issues of reliability and repeatability of data are also dramatically influenced by the choice of listener, key considerations considering the relative lack of time available to us. To really iron out the variables you'd need to use more systems, more rooms, different times of day and periods between sessions, and far more sophisticated controls. Fine if you've got a government research grant, but somehow I don't see cable sound as a burning issue at No.10, despite Tony's dodgy taste in music. Major vote winner? I suspect not... Especially when compared to crushing the infamous Dr. Evil and his dark cohorts, along with a place on the World Stage to go with it. Bitter? Me? I just can't help feeling that a bit of cable

Enough of this silliness, just who did we choose, co-opt or coerce?

think about all those volunteers...

research would at least have been a lot cheaper! And

Being based just north of Salisbury, Nigel Finn from the Chord Co. was too good a prospect to miss. And before you cry foul, let's remember that although the Chord Signature cables are included in the test, it is blind listening, allowing us to examine how Nigel would mark his own designs!! He gamely accepted this potential banana skin, thus representing somebody who not only spends a lot of his day and earns all of his living from listening to cables, but someone who has an unhealthy interest in the sound of solder. He was by far the most experienced listener on the panel, both in terms of the subject and the methodology involved.

Nigel's home system consists of Roksan and Chord Electronics front-ends feeding a Bonnec pre and two

Bonnec stereo power amps which are used to bi-amp a pair of KEF Reference 201s or RDM1s. Various supertweeters and subs also make occasional appearances, whilst the cables are an ever changing mosaic of Chord Co. prototypes.

The ever-willing Jason "What Parapet" Hector was also happy to oblige. As an electronics research engineer by day, this was new ground for him. Yet, as a reviewer on the magazine, he hears far more equipment than most

people. However, coming from a ruler flat background before cresting the subtle rise that finds him inhabiting his current Well-Tempered, Dynavector, Shahinian world, cables have always been

a proscribed subject as far as he's

concerned: NACA5 good – Kimber 8TC better... But that's about as far as it goes. The sort

of exotica under test here are generally greeted with a slightly bemused smile and a well developed sense of scepticism. Perfect for my purposes...

Third lamb to the slaughter, the unsuspecting Kevin Russell, engineer and salesman at local emporium

Salisbury Hi-Fi, who had absolutely no idea what he was letting himself in for. His home set-up consists of a Meridian 506/24 CD player and 501 pre-amp, driving his own valve power amp and a pair of ART ST-One speakers. Cables are Chord Chameleon and Odyssey. Again, the shop stocks none of the cables under test.

This trio of (fairly) willing participants gives the panel a nice cross section of attitude and experience, both in terms of the subject matter and the actual activity of blind listening. More importantly, from my point of view, not one of these listeners uses the Nordost Valhalla cables that nearly half of our reviewers rely on, and which lie at the root of so much of the vitriolic outrage directed our way. Fine, let's put our opinions to the test and see whether the Valhallas would perform under blind listening conditions as well as we think they do when we know their identity.

The cables...

As mentioned earlier, we selected cables to offer a cross section of materials and technology, construction and price, ranging from where high-end designs start right the way up to the dizzy heights of the Nordost Valhalla. In each case we obtained two sets of interconnects

and a 5m pair of single-wired speaker cables. In the mix I wanted to include our benchmark designs, by way of corroboration and confirmation of our faith in their performance and value. But along the way it was essential to provide credible competition. The designs selected and the rationale behind them is laid out below:

Nordost Valhalla (1m pr, \$2195; 5m spkr, \$4296) Nordost (UK) Ltd. Tel. (44)(0)1352 730251 Net. www.nordost.com

So much has been written in these pages regarding Valhalla that it seems superfluous to add more. It acts as the cable of choice for CT, CB and myself, as well as SG if only he could lay his hands on some. Undeniably expensive, it employs Nordost's mono-filament construction and multiple silver-plated copper, solid-core conductors.

Siltech SQ-110 and LS-188 (1m pr, \$1430; 5m spkr, \$6300) RT Services Tel. (44)(0)1235 810455 Net. www.siltechcables.com

Representing the top-end of Siltech's G5 Classic series (there's a more expensive Signature range) this beautifully presented cable is a price match for Valhalla. The conductors are drawn from a silver/gold alloy, which is unique as far as I'm aware. Construction is a closely guarded secret but is claimed to offer significant benefits when it comes to the rejection of magnetic and RF interference. It appears to comprise a

closely twisted solid-core
configuration combined
with a sophisticated
shielding arrangement.
All terminations are
from WBT and the quality
of fit and finish is absolutely
exemplary. Fit, finish and
flexibility are all superb, as you'd
expect given the source of the
terminations and the pedigree of
the conductors. The packaging,
which always seems to be a
headache for cable designers,
is both effective and intelligent

as well as being suitably individual. It rounds off the classy presentation perfectly.

These leads are the latest product from US cable designer

Stereovox Symmetry (SEI-600 1m pr, \$1695; 5m spkr, \$8770) Tel. (44)(0)1727 865488 Net. www.symmetry-systems.co.uk

Chris Sommovigo , the man behind the superb Illuminati digital leads. They are extremely unusual in that they represent a totally clean sheet approach to the problem, with even the plugs and terminations being specifically designed and manufactured for the purpose. Conductors are flat, ovoid solid-cores, silver-plated, twisted and shielded. The terminations are beautifully executed and designed to

offer a constant impedance to the signal. Unusual

these days, is the total absence of directional marking. Flexibility and connection integrity are both excellent, which is just as well given the bulk and weight of the speaker cable. The leads are packed in cymbal cases which is both simple and

for cables

• effective. It's a neat touch that's indicative of the lateral thinking that pervades all aspects of the design.

Audience Au24 (1m pr, \$401.60, 5m spkr, \$1591.20) Metropolis Music Tel. (44)(0)1892 539245 Web. www.audience-av.com

Audience's Au24 cables offer a dramatically different face to the high-end cable world. Yet they arrive with excellent recommendations and an internet reputation as a Valhalla beater, which certainly suggests they should be taken seriously. The more so given their comparatively modest price (we are talking highend cables here!). The simple, solid copper cores are designed to minimize inductance and eddy current resistance, while the incredibly straightforward, even minimalist construction follows many of the low-mass tenets that have proved so effective over the years. In fact, Audience have done their best to eliminate any superfluous parts or purely cosmetic elements, on the basis that every time you add additional sleeves or dressing, you can hear it. They're right too! The end result is an almost impossibly thin lead that's as basic in appearance as you can get. Despite the minimalist plugs, connections are very tight indeed, while the springy nature of the leads makes any excess something of a handful.

Chord Signature (1m pr, \$500; 5m spkr \$1150) Tel. (44)(0)1980 625700 Net. www.chord.co.uk

Chord's Signature
cables might be the
company's flagship
products but are still
only entry level in highend terms. In technological
terms they represent the new
trend toward designs based on
microwave cables, promising exceptional
sound quality for their price. They also represent
another of our benchmark products and as such
it will be interesting to see how they stack up. In
constructional terms, this is another minimalist, low-mass

design, despite the comparatively bulky conductors.

The construction is absolutely first class with extremely neat finishing and considerable care given to matching materials and conductor surfaces. Hence the use of silver plated copper conductors and plugs in combination with silver solder.

Connections are

positive without being so tight as to damage socketry, but these cables are very springy indeed, making neat dressing a nightmare. The speaker cable is colossal and if the red and black colour-way upsets your sense of aesthetics, it's also available in an all black finish.

QED Q-nect 3/Silver Anniversary (1m pr, \$40; 5m spkr, \$80) QED Audio Products Tel. (44)(0)1483 747474 Net. www.ged.co.uk

At less than a tenth the price of the next nearest competition, you might well wonder what the QED cables are doing in this group. The answer is simple: I want to know whether people can hear the difference between cheap and expensive cables when they don't know what they're listening to. As such, the three-times What Hi-Fi Award winner represents the people's choice. The basic, stranded speaker cable and shielded twin-ax interconnect use silver-plated copper conductors and offer neat, mass-produced style terminations. Practicality is excellent with the interconnects being flexible and the speaker cables offering a cross-section

hard to criticize the presentation given the price, although the proof will be in the listening.

almost as slim as the Au24. It's

Listening Results

The response sheets for the panel were collected and collated to create the table laid out below. The running orders have been corrected to make it easier to follow individual cable performance, although the results are still separated into first and second groups and by listener.

▶ Scores by Listener

	TEST GROUP 1			TEST GROUP 2				
CONTROL	STEREOVOX			CHORD				
	NF	10	10	10	NF	15	16	15
SILTECH	JH	10	10	10	JH	10	11	9
	KR	10	10	10	KR	11	9	13
	NF	18	18	18	NF	14	16	16
NORDOST	JH	13	12	12	JH	15	15	15
	KR	16	16	16	KR	14	13	14
0.00	NF	12	16	11	NF	10	11	12
QED	JH	15	14	15	JH	6	7	6
	KR	12	13	13	KR	8	7	10
	NF	16	18	10	NF	10	10	10
AV24	JH	12	15	8	иг JH	10	10	10
AV 24	KR	18	16	11	KR	10	10	10
	IXIX	10	10	11	IXIX	10	10	10
	NF	15	15	13	NF	15	16	13
CHORD	JH	13	14	13	JH	14	14	15
GITGILE	KR	16	14	13	KR	15	15	15
	NF	15	15	15	NF	12	12	12
STEREOVOX	JH	12	12	12	JH	7	8	8
	KR	17	17	15	KR	10	10	10

In the first group, the Siltech was the first cable scored, whilst in the second it was the Au24, accounting for their straight 10 scores. You can handle this raw data in a number of different ways. Initially, I ranked the cables by overall preference, totaling the scores for each listener and then rating them accordingly. Adding together those ratings then produces an overall ranking for each cable, based on the combined preferences of the panel across both systems and all musical selections. However, one thing became clear almost immediately. The Siltech finished dead last in the first session and a very close third in the second! The result in the first round was also by far the most concerted verdict, with the ranking agreeing across all three listeners. What do we conclude from this? Well, the Siltech cables and the Hovland electronics obviously don't get along. This kind of incompatibility is always a possibility with cables and has occurred with a vengeance in this instance. That's why we used two different systems. In this case, the response is to rely on the second set of scores, doubling them up to create an adjusted result, adding it to the results table as an additional entry.

Rankings by Listener and Overall

CABLE	RANKING	TOTAL
NORDOST	1 1 1 2 2 3	10
Adj. SILTECH	1 3 3	14
CHORD	4 2 4 3 2 1	16
STEREOVOX	2 4 1 (4 5 4)	20
Au24	3 5 3 6 3 4	24
SILTECH	6 6 6 1 3 3	27
QED	5 1 5 5 6 6	28

The final consideration is the question of total scores, or points awarded. Whilst the scoring system is preference based rather than numerical in nature, used in conjunction, the two results present a fuller picture.

Overall Rankings and Total Points Awarded

CABLE	TOTAL SCORE	BY RANKING	
NORDOST	272	1	
CHORD	258	3	
STEREOVOX	219	4	
Adj. SILTECH	218	2	
Au24	214	5	
QED	199	7	
SILTECH	198	6	

Conclusions

Well, the first and most obvious result is the clear preference exhibited by all listeners for the Nordost Valhalla. Topping the ratings both in terms of rankings and points scored, our benchmark top-end cable accumulated only four faults (in equestrian speak) with a total of ten against a theoretical minimum of six! That's an impressive performance by any standards and an emphatic justification for our faith in its abilities.

Equally apparent (and reassuring) is the audible gap between the expensive cables and the budget QED. Indeed, barring a single aberration (that we'll get to later) the gap would have been even wider. Ignore the spurious Siltech results in the first round and it finished plum last in five out of six cases. This is hardly surprising given its price and shouldn't be taken as a criticism of QED or its products. However, it

▶ does rather undermine the notion that cable differences are inaudible or unimportant. And yes, I'll admit that there's a certain satisfaction in hoisting the blind-listening/all cables sound the same brigade on their own petard.

But perhaps the most gratifying performance comes from the Chord Signature, our "mid-price" benchmark. Ranked a solid third on preference (behind the Nordost and Adjusted Siltech) that places it well beyond its price level. Look at its accumulated points and it gets even more interesting, scoring a solid second, well ahead of the pack, reflecting the consistency of its scoring across all listeners and genres. Again, this underlines the "subjective" results achieved in the observational review. Which is nice.

And talking of consistency, the results themselves are remarkably consistent across the range. Both the major aberrations detected were reflected in every listener's notes, the Siltech's system

incompatibility being particularly obvious. Less sonically apparent was a flaw in the first round listening with the Au24. The first two tracks were negotiated with ease, the cable scoring highly. But once we reached the Dvorak things fell apart alarmingly, a fact that was picked up by every listener. Unfortunately, the Au24 was first up in the

second session, which meant that I'm unable to tell whether this is a system or program related effect. However, the accuracy with which it's mirrored in the numbers is impressive, reinforcing just how audible differences in system and cable performance are, even under blind conditions.

So much for the highlights, the real detail and quality is in the stitching. Dig a little deeper and interesting patterns begin to emerge that start to throw some light on the influence of the process itself. I've already mentioned the Siltech result and its effect on the initial, overall outcome. Now let's take a look at the Stereovox scores. On the face of it, especially considering the price of these cables, they represent a poor return. Yet, having listened to these cables in isolation I'd consider them worthy of far higher marks – a judgement based on the same criteria applied to the Nordost and Chord reviews whose outcome was so emphatically reinforced by the blind-testing. Why the discrepancy?

I think it has a lot to do with the nature and sonic character of the Stereovox cables. Compared directly to the more obvious sounding competition they can sound almost muted. They don't exhibit overt or ear-catching strengths such as impressive dynamics or dramatic transparency. But listen

longer and you realise that they have a sense of balance and integrity that brings an unforced coherence to music. It's a quality that emerges gradually and is far from apparent in straight A/B comparisons (although A/B/A listening does prove more revealing – as always). This effect becomes even more apparent under blind-listening conditions, actually exaggerating the responses of the listeners. Sure, you can devise a different blind-test, and with more time and resources you could certainly develop a superior test protocol, but this instance does tend to underline the potential pitfalls in blindtesting. Reading through the listener's comments you can see the cable's character emerging in the repeated use of words like 'even', 'unforced' and 'easy', but it's hard to interpolate these into the numerical scores unless you use a far more complex points system, which has related problems all its own. Certainly, keeping things simple should aid consistency and repeatability and that seems to be reflected in our results.

Now let's take that a stage further and examine the single biggest anomaly in the whole test series. How can the same listener mark the QED as best in one series of tests and worst

in the next? Yet that's exactly what

JH managed to achieve. Of

course, he could just be deaf

(after all, he is a reviewer)

but looking at his other

but looking at his other results reveals much greater consistency, as well as the fact that he picked up on the Siltech and Au24 anomalies

also identified by the other listeners. This suggests that the responsibility lies elsewhere.

Read the accompanying side-bar and it'll give you some insight into the thought processes that governed the marking. Indeed, my biggest criticism of blind-listening is that it transforms the exercise into one where listeners attempt to identify products rather than identifying their characteristics. It's a subtle shift but a vital one, rearranging the listener's priorities. Read Jason's own description and you can begin to see just how unsettling and threatening having all your established benchmarks removed can be. Rather than freeing the listener it tends to pressurize them, undermining their confidence. As a research scientist by trade, JH responded by reverting to type. The end result was to recast the exercise, at least to start with, as a sophisticated form of pin the tail on the donkey.

Now, if we combine that with the particular sequence of events, we can start to see where that first round score



Fear And Loathing In Ringwood...

by Jason Hector

It is always with some trepidation that I put myself forward for these sorts of tests. (I can't say that I noticed! Ed.) Will I identify the cheap cable? Will I be consistent with my opinions? Will I hear any differences at all? Well the last worry soon evaporated as the cables were swapped around and it was clear that each set had marked performance differences. But until you've sat there, with nothing to see and none of your usual reference points that you start to realise just how deeply this sense of apprehension lies. It was further stokeded by the nature of the tests; comparative listening is not something I do day to day. Normally I set a system up and try to get a feel for the whole of its presentation rather than worrying about how it compares to anything else. And I do that over numbers of albums rather than just a few tracks! In the first run through all of the cables were fresh to our ears and there was a tendency, in my case, to always try to compare the current cables under test to the previous cable rather than awarding it an absolute score. This made the ordering more important than perhaps it should have been. The tendency is to try to identify the cable and then mark

it, rather than simply respond to what you're hearing. It's that confidence thing again... When you have a better feel for the boundaries, as we did second time around, then each cable becomes more isolated and its comparative performance easier to discern.

With my working background I also have a tendency to over analyse, or go into scientist mode and again this led to some confusion in the first run through with too much focus on small parts and not enough on the whole. Another way of saying that I was listening for that specific drum strike or backing vocal rather than the way it was integrated into the rest of the piece. The second time round I was more relaxed (lunch and a pint of Ringwood bitter helping) and interestingly, as the gaps between the cables were perceived as more obvious this in turn led to more confidence in my opinion.

The general thrust of the results speak for themselves and I feel confident that using these cables over time at home, with my music in my system, would lead to even larger differences between the cables becoming ever more obvious. Whether that would result in the same ordering is a different question. I can't help feeling that there are performers here that would do better under those circumstances – and not just the cables!

▶ came from. Remember, this is right at the start of the process, and it's an unfamiliar system. The control cable was the Stereovox, followed by the Siltech which really didn't suit the system at all. Next came the Stereovox again, then the QED. That makes a running order of solid-core, underperforming silver and again, solid-core. Each subsequent disappointment builds on the last, increasing the tension and pressure. Imagine the palpable sense of relief, having been marking down the unfamiliar and unimpressive, when something familiar and multi-stranded hove into earshot. After all, of the assembled cast, this is the closest thing in technological terms to the cables Jason runs at home. Trouble is, this was no donkey - it was an ass. Somehow the image of a drowning man grabbing a passing life-belt swims, unbidden into my mind. Under the circumstances, a degree of relieved overreaction is understandable.

After that, things settle down a bit, although the absence of stranded cable thump and smear still undermines the subsequent results. But some sense of orientation is beginning to assert itself and the scores for the last three cables are beginning to hit a groove. This is reinforced

by the post-session debrief which helps establish some way-marks in the wilderness. The second series results are far more representative. This time, the QED appears after the Nordost, which rather puts it in context.

consistency of NF, far more familiar with both the subject matter and methodology.

He was even able to reliably identify cable configurations in many cases. Likewise, KR arrived unburdened by expectation and unfamiliar with most of these products to the point of never having heard of most of them. Identity was something of a side issue. All of which leads us to the biggest intangible in blind-testing – the listeners themselves. Compensating for

Now compare this to the

themselves. Compensating for variations there is well beyond the scope of any test that either this or any other magazine could devise and fund. JH is probably feeling a

little bruised and not a little embarrassed by all this. Well, he shouldn't. What his experience usefully demonstratesis the hidden-psychology that governs blind-testing. Revealing this facet is if anything, more important than the other results put together. Next time you're thinking of writing in to demand blind-listening tests, just bear what it reveals in mind.