

TV shows such as The X Factor pump up the volume on certain notes to keep the audience's attention, according to Gareth Malone (bottom)



### Acoustics

## Turn it down! Why are TV shows so loud?

**T**he Head of Sound at the BBC must be increasingly tempted to stick a finger in both ears. With one lug already ringing from the rumbling complaints that TV actors (in shows such as Jamaica Inn and Happy Valley) speak too quietly or indistinctly to be heard by older viewers, now comes an earful in the other from those moaning that the soundtracks on TV shows these days are too loud.

Top TV choirmaster Gareth Malone has said this week that The X Factor leads the shows that offend his musical sensibilities. It is not just that they pump some notes to 11 on the amp, but that 7 and 8 become noisier, too. Malone blames a process called “audio signal compression”, in which the sonic range is reduced to raise the volume of the quieter sounds in a track closer to the loudest.

This process has been long used in adverts and movies to keep the audience's attention, as loud sounds are associated with excitement and enthusiasm. (The career of Chris Evans has largely been based on this principle.) According to Malone, it has increasingly spread to TV programmes.

Many viewers are also, unlike most of the participants in Malone's TV shows, singing from the same song sheet. Protests led to a remixing of the soundtrack

on a Dr Brian Cox series, Wonders of the Universe, although the problem there may have been more the balance of the sound-mix between words and music (those with impaired or ageing hearing struggle to distinguish between competing noises) rather than audio signal compression.

The problem is that so many different technological interventions come between material and our ears. Audio signal compression is sometimes confused with “data compression”, a separate process (also known as source coding), in which the size of files is reduced in order to make storage or transmission easier. This results in a loss of sound quality, which is why it is often unwise to tell composers or musicians that you have all their stuff on your phone.

So, while Gareth Malone and many viewers complain about rising amplification, some producers and directors are more concerned about the percentage of audiences who experience programmes with the sound compressed for portability. Viewers are presumably now sometimes listening to audio-signal-compressed soundtracks that have then been data-compressed, rendering them a double insult to the ears.

It can't be long before the Head of Sound sends a memo suggesting a season of silent movies, although even those have musical soundtracks that could have their sonic range reduced and induce Gareth's most searing look of disappointment.

**Mark Lawson**



### CUT YOUR HAIR!



In tennis changeovers we've seen everything from Tim Henman demanding a ballboy fetch him a Coke to Jim Courier reading a Armistead Maupin novel. Not, until now, a haircut. During a game at the WTA finals in Singapore, Svetlana Kuznetsova snipped off her plait, which was getting in her eyes. It worked - she went on to win.

For more on the joys of DIY haircuts - see [theguardian.com/fashion](http://theguardian.com/fashion)

