

Tom Service and Prof. Lawrence Parsons discuss the ‘tingles’

Tom: How individual, how personal is all this? I mean, I have a list of pieces that usually, depending on the performance will probably give me this kind of effect. Some of those are probably held in common by other listeners around the world but probably not everyone. I mean, from a scientific point of view, is it actually possible to say there are certain musical characteristics i.e. long slow melodies, luscious orchestration, or particularly luscious harmony, whatever, things that you could say actually this is going or this music should produce, is more likely to produce, a kind of chills effect neuroscientifically speaking as opposed to music that isn't?

Larry: Yes, we can sort of make some general ideas. One is that sadder music, where people would react or describe as sadder music, tends to be more likely to produce chills than happier music, but both can. And even choosing between happy and sad, it's not important, what is important is that you, you, the individual, who's going to have this tingle experience, thinks it's pleasurable. So you and I can play, listen to the same pieces so all the same activities, sequences of tones are going into our heads, into our brains, into our bodies in the same way; but because you really prefer it, because it really gives you pleasure, you'll have much more of a probability of having one of these experiences. Whereas if I don't prefer it, I won't have it.

Tom: Is there any illusionary use for this experience? I mean, the centres of the brain that seem to be animated in this experience are the instinctive,

ancient parts of the way that we relate to the world. I mean is there any use for this feeling?

Larry: The older centres, the centres of the brain that are involved with reward, motivation, planning, emotion, all of those centres get involved, including visceral; the senses you have of how your body feels. And music is closely tied to physical movement, to dance, or actually making the music, you know beating the drum or singing or doing something with your hands to make a sound that's melodic.

Tom: That's a wonderful thought because it suggests that actually what's happening when I as an individual, or we collectively as an audience experience the phenomenon of the tingle factor, actually it's a connection with a really primal embodiment of the essential social power function of the musical experience.

Larry: An emergent idea would be that we have social needs, and music is a key element to our social nature and to our, the organisation of social groups and that could go back to early days of language development. It could go back to early days of sort of cultural exchange, where the members of a group would come together and tell stories about the hunt, about the day's activities. Stories about the forest gods, whatever cultural, you know, entities they believed in, and they used that as a sort of dramatic dance music combination where all the members of the group are involved at some level. And these large social organisation experiences tuned everyone's emotion in the group together, binds everybody together, infants to babies to all members from the

oldest to the youngest member of the group. So this kind of critical social context or mechanism should be rewarding. Modern day people can sit in a room by themselves, with their earphones on and think that they're having a personal experience but they're not. They forget that some group of people or somebody made that music and they're implicitly still involved with that, you know, they're simulating a social event with musicians. Now they don't remember, I mean, you lose it because it's stripped down and it's modern and so on but it's still a social event and you connect with it in a social way and your social, personal brain and reward centres and emotional centres are there and they're active and that's where we think about it.