



John Sloboda at Milton Court, Guildhall School of Music & Drama in London.

Q&A John Sloboda

Melodic psychologist

London-based music psychologist John Sloboda explores the subconscious connections and disjunctions between musicians and their audiences. He discusses his experiments on the 'emotional hotspots' experienced by listeners and the surprising power of improvisation.

What role does psychology have in classical music today?

There is something of a crisis in the classical music world. Audiences are less willing to treat composers like gods, with musicians as the faithful transmitters of their intentions. Concert attendance is declining. A culture of intense competition and elitism can set young musicians up to be either scared or dismissive of the public. Classical musicians may need to learn how to connect with their audiences better — to talk to them, look them in the eye and improvise. They need to remind audiences of the special unpredictability of live music. We are researching how audience motivation and engagement change when some of these aspects are introduced into concerts.

How did you work with musicians early on?

From the start, my research was carried out in real rehearsal rooms, not in a darkened cubicle with buttons to press. I focused on what happened when instrumentalists

read musical notation, and found that good readers don't look at all of the notes, but seem to be able to pick out recurring patterns. This allows them to read with minimal effort and to make 'intelligent mistakes' that deviate from the score, but in musically appropriate ways. In an early study, I inserted deliberate mistakes into a piece of music. Poor readers painfully and slowly played the mistakes as written. Good readers played what they expected to be there, because they had extracted the essential structure of the piece. This raised a bigger question: how do we apprehend the aesthetic and emotional meaning of music?

How did you begin to work with concert audiences?

From research on 'colder' cognitive areas such as memory and perception, I moved on to 'hotter' subjects — emotion, passion and motivation, the drivers that pull you out of bed in the morning. In an early study, I asked 100 people to tell me which specific moments

in recorded music triggered physical responses such as tears, shivers down their spine or hair standing on end. These 'emotional hotspots' tended to occur at moments that manipulated listeners' expectations, such as dissonant notes that were held but eventually resolved. When I shared my results with film composers and hotel bar pianists, they said: "Yeah yeah, we know this already." But it was one of the first scientific studies to show that listeners feel the strongest emotions in response to the unexpected.

Does that have implications for musical improvisation?

In the eighteenth century, musicians would embellish and improvise, never playing a concerto the same way twice. A team of researchers at Imperial College London and the Guildhall School of Music & Drama, also in London, are investigating the impact of performances that reintroduce the lost art of classical improvisation to chamber music. In one experimental concert, we told audiences the two ways in which they would hear the same music, but we didn't tell them the order. One was a prepared composition; the other was improvised in real time by the performers. Using an electroencephalograph to measure brain activity, we found greater synchrony between the brains of musicians and listeners during the improvised performances, especially at moments involving a surprise, such as an unexpected shift in harmony or dynamics. In general, audiences rated improvised performances as more emotionally engaging.

Tell me about your work in drawing audiences closer.

Before a November 2013 concert of Britten Sinfonia, a UK chamber ensemble, we held an open dress rehearsal and audience discussion on the nature and value of the collaboration between musicians in putting on a programme of contemporary work. After a concert earlier this month, the audience gave feedback to the musicians on what they heard and felt — an opportunity that was eagerly and thoughtfully grasped. Such initiatives show concert-goers that they are not 'ticket fodder', but more like consultants or collaborators. We deployed audience questionnaires at the November concert and will use focus groups to investigate the impact of these interventions. Also, at a workshop on 1 March, we will share first findings with the musicians and audiences involved. Although qualitative, our results may inform more intensive and controlled research, in which specific features are deliberately included or excluded from different events, to assess their impact. We don't know precisely how it will change the concert experience, but we are eager to find out. ■

INTERVIEW BY JASCHA HOFFMAN