Matthew Shlomowitz

Lecture about Listening to Music

Completed: 2017
Duration: 34 minutes

First performed by Patrick Stadler (saxophone), Antoine Françoise (keyboard) and Matthew Shlomowitz (lecturer) on 11 July 2017 at the Tzil Meudcan festival, Tel Aviv, Israel.
Lecture about Listening to Music

For lecturer, saxophone (soprano and tenor) and synthesiser/sampler

1. Microtonal Drone and Progressive Muzak
2. Repetition Piece
3. Music with Construction
   Probe Tone Signal Experiment
3b. Music without Construction, Microtonal Reprise
4. Reprise Extended
5. Pub quiz
6. Final Part

Performance instructions

The score is written in transposition.
Boxed texts in the score are spoken by the lecturer throughout the performance.

Set up
Required equipment

- stereo PA
- 1 vocal microphone
- 5 octave synthesiser with pitch-wheel and sustain pedal
- synthesiser amplifier
- 2 octave sampler keyboard
- 5 large sheets of cardboard

Routing

- microphone to PA
- sampler to PA
- synthesiser to amplifier

Sheets of cardboard

The five sheets are placed face down on a stand. The score indicates when each card should be shown. Each card should present the following text:

Card 1: George Michael, “Careless Whisper”
Card 2: Glenn Fry, “The Heat is On”
Card 3: Bruce Springsteen, “Born To Run”
Card 4: INXS, “Never Tear Us Apart”
Card 5: Next: improvised solo, live

Synthesiser

Five sound settings are used:

- Synth lead: simple/direct electronic sound with sharp attack and light reverb
- Epic synth: thick electronic sound with clear attack, heavy reverb and delay
- MIDI saxophone
- Electric piano
- Orchestral strings

<table>
<thead>
<tr>
<th></th>
<th>Microtonal Drone and Progressive Muzak</th>
<th>Synth lead, Epic synth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Repetition Piece</td>
<td>Synth lead</td>
</tr>
<tr>
<td>3</td>
<td>Music with Construction</td>
<td>MIDI saxophone</td>
</tr>
<tr>
<td>3b</td>
<td>Music without Construction, Microtonal Reprise</td>
<td>MIDI saxophone, Synth lead</td>
</tr>
<tr>
<td>4</td>
<td>Reprise Extended</td>
<td>Synth lead</td>
</tr>
<tr>
<td>5</td>
<td>Pub quiz</td>
<td>Electric piano</td>
</tr>
<tr>
<td>6</td>
<td>Final Part</td>
<td>Electric piano, Orchestral strings</td>
</tr>
</tbody>
</table>

iii
**Pitch wheel**

The pitch wheel is notated on a three line staff where the middle line indicates the unaltered pitch and the upper and lower lines indicate a pitch alteration of one tone above and below the played pitch respectively. Specific pitch alterations are indicated.

![Pitch Wheel Diagram]

**Samples**

<table>
<thead>
<tr>
<th>note</th>
<th>name</th>
<th>dynamic</th>
<th>duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>Kick drum</td>
<td>f</td>
<td>&lt; 1”</td>
</tr>
<tr>
<td>D4</td>
<td>White noise</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>E♭4</td>
<td>Snare</td>
<td>f</td>
<td>&lt; 1”</td>
</tr>
<tr>
<td>E4</td>
<td>Howling wind</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>F4</td>
<td>Plane</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>F♯4</td>
<td>Electro hand clap</td>
<td>f</td>
<td>&lt; 1”</td>
</tr>
<tr>
<td>G4</td>
<td>Ocean and fog horn</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>A4</td>
<td>Morse code</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>B4</td>
<td>Rocket launch</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>C5</td>
<td>Air raid siren</td>
<td>f</td>
<td>20”</td>
</tr>
<tr>
<td>D♭5</td>
<td>Construction</td>
<td>ffff</td>
<td>1’00”</td>
</tr>
<tr>
<td>E♭5</td>
<td>Synth pad 1 + wind (pitch: D)</td>
<td>f</td>
<td>10”</td>
</tr>
<tr>
<td>E5</td>
<td>Wind + ocean/horn + rocket</td>
<td>ffff</td>
<td>5”</td>
</tr>
<tr>
<td>F5</td>
<td>Plane + morse code + siren</td>
<td>ffff</td>
<td>5”</td>
</tr>
<tr>
<td>F♯5</td>
<td>Synth pad 2 + wind (pitch F♯)</td>
<td>f</td>
<td>10”</td>
</tr>
<tr>
<td>G5</td>
<td>Wind + ocean/horn + rocket + plane + morse code + siren</td>
<td>ffff</td>
<td>50”</td>
</tr>
<tr>
<td>A♯5</td>
<td>Synth pad 3 + wind (pitch: F)</td>
<td>f</td>
<td>10”</td>
</tr>
<tr>
<td>B♭5</td>
<td>Synth pad 4 + wind (pitch: A)</td>
<td>f</td>
<td>10”</td>
</tr>
<tr>
<td>B5</td>
<td>“Noise is a pain in the arse for animals” programme note</td>
<td>f</td>
<td>40”</td>
</tr>
<tr>
<td>C6</td>
<td>Silence</td>
<td>f</td>
<td>&lt; 1”</td>
</tr>
</tbody>
</table>

- All samples continue to their end whether the key is depressed or not, or stop when the next sample is triggered. The function of the C6 ‘silence’ sample is to stop a playing sample when no other sample follows it.
- All samples begin from the start of the sample each time they are activated.
- In synth pad 1 and 3, the wind component of the sample is panned left, and in synth pad 2 and 4 it is panned right.
Lecture about Listening to Music

Matthew Shlomowitz

Microtonal Drone and Progressive Muzak

Soprano Saxophone in B♭

Sop Sax

Synthesiser

Synth

Ten Sax

Sop Sax
Your listening was first directed inward to appreciate the material nature of sound. The two instruments played long tones at slightly different frequencies, which created beating. In acoustics, a beat is an interference pattern between two slightly different frequencies. This interesting acoustical phenomenon drew you inward to attend to the materiality of sound. Using Pierre Schaeffer’s term, you engaged in reduced listening, which is the type of listening that focuses on appreciating the nature of the sound itself, without reference to external meaning.

It’s unlikely that you continued practicing reduced listening when the music changed. Instead, your attention shifted outward as you attempted to identify the musical style. This wasn’t straightforward, as the kitsch and naive aspects were suggestive of Muzak, whilst the irregular time signature and unexpected harmonic changes were suggestive of progressive rock. In addition to considering matters of musical style, the moment the Progressive Muzak entered also triggered a heightened awareness of the composition. Your natural response was: I didn’t see that coming, I wonder how the piece is going to proceed from here? We can call this mode of listening, What is going on in this composition? listening.
Let’s try and unpack your listening experience of this second piece. The first few times you heard that musical idea you listened outwardly to locate the style. As it continued to repeat, your attention shifted to *What is going on in this composition?* listening. As the question was answered – it’s going to continue repeating – you either stopped paying attention, or you found another way to listen. You may have found that the extreme repetition allowed your listening to shift inwards to appreciate the details within the idea that one might easily miss the first time. Or, perhaps you became attuned to the micro variations that naturally resulted from the fact that the musicians could not perform this challenging musical idea exactly the same way each time. If you have a critical disposition, you regarded these variations as mistakes and engaged in what David Huron calls *fault listening*, looking for the discrepancies and judging the musicians accordingly. Whilst this composition was simple, the listening experience was more complex. The next example considers how external factors shape listening.
You just experienced the struggle to attend to music in a challenging environment listening. One issue was that some of the sounds on the recording had sudden and unusual features, which captured your attention whether you liked it or not. We have evolved to be alert to striking and unexpected sounds because they potentially signal a threat. Whilst our survival skill auditory capacities have not developed for the sake of art, they are engaged by art.

The main issue, however, was that the saturated sounds of the construction recording made it difficult to discern, let alone attend to, the music. Other factors influence the way we hear in challenging listening environments. In 1968, Greenberg and Larkin did a landmark experiment in the field of psychoacoustics, where participants were asked to identify a soft tone amongst a loud recording of white noise. We'll now recreate this experiment. Your goal is to try and hear the saxophone tone amongst the white noise and some additional atonal music makes the task even harder.

Probe Tone Signal Experiment

Experiment 1
Soprano Saxophone in B♭
Synthesiser (electric piano)
Sampler (white noise)

The next example is the same aside from one element: the saxophone tone will now also be played prior to the example. According to the results of the original experiment, you should find it easier to identify the tone because the lead tone will direct your listening.
In this final version of the experiment, a lead tone will again precede the example, but this time the lead tone will not be the same pitch as the tone heard in the example, but rather a nearby pitch. This lead tone should still be helpful in directing your attention to the pertinent frequency range.
We are now going to return to the piece you heard earlier with the recording of construction, let’s now imagine it was titled *Noise pollution is a Pain in the Arse for Animals*, and accompanied by the following programme note:

**Keyboardist triggers “Noise pollution is a pain in the arse for animals” programme note sample (B5):**

In a given habitat, non-human animals each carve out their own bandwidth to make sure that they are heard amongst the other animals. Each species evolves to establish its own acoustic territory so that its voice is not masked, in an acoustic partitioning process that is both competitive and cooperative. *Noise pollution is a Pain in the Arse for Animals* is intended as provocation, as activism, illustrating how noise pollution is making communication difficult for animals.

Putting the political dimension to one side, this example suggests that information we receive from titles and programme notes influences listening; if the piece had been presented to you with this title and note, you would have experienced it differently. Non-textual information also influences listening, such as the appearance of the performers. Sincere looking performers suggest sincere composition and a sincere mode of listening. Likewise, intellectual looking performers suggest intellectual composition and an intellectual mode of listening.

In the piece with the construction, the recording provided an external distraction, but listeners can also be internally distracted, by their own thoughts. David Huron suggests we use the term *tangential listening* for when those thoughts are indirectly connected to the music or performance. You were engaging in tangential listening if you were thinking about the musician’s outfits. Huron proposes the term *distracted listening* for when you pay no attention to the music and are thinking about something unrelated, like where you might go after the concert. Here is that piece again without the recording of construction. To experience *distracted listening*, try to not listen to the music and think about something unrelated.
Let's now reconsider your experience of the first piece. I suggested that the acoustic beating drew your attention inward to appreciate the materiality of sound, but then as the Progressive Muzak entered, your attention shifted outward to identify the style and you also engaged in *What is going on in this composition? listening.* But, perhaps you had a different experience. For instance, if you are unfamiliar with acoustic beating and the idea of reduced listening, you may have found it difficult to find a way into this opening. Given the title of this lecture, you understood it had something to do with listening, but you weren't sure exactly what. If you are familiar with the genre of drone music, you may have compared the opening with other drone music and been concerned with evaluating whether this was good drone music. Or, perhaps you were confused at the start, but when the melody entered you retrospectively understood that the opening drone music was an intro, like the kind you get on some psychedelic rock albums. When the melody entered you didn't experience *What is going on in this composition? listening,* but rather, *I know exactly what is going on in this composition!* listening.

In the opening piece, the entrance of the Progressive Muzak was a surprise. In this reprise of that opening piece, you may be wondering if the melody will reappear. The unlikely has now become likely, as musical works set up patterns that shape listening expectations, because we expect patterns to reoccur. As the reprise continues, let's find out what will happen and what types of listening the music activates.
†In the following passage, create a different character for each melodic pattern using articulation, dynamic shape, etc.
The sample is likely to end around M143. If it continues until M145, that is fine too.
The next exercise combines four iconic songs from the 1980s that feature the saxophone. These songs have been scrambled together, which will make it difficult for you to identify the songs.

The pitches and rhythms of the four songs have been transcribed, but there are additional qualities (e.g. timbre, articulation, growls) which are not shown. The saxophonist is encouraged to add these qualities to characterise each song.
It is unlikely that you were able to identify the songs from that example. You will shortly hear more, with the songs becoming gradually less scrambled and the task progressively easier. The identification mode of listening is engaged by formats such as television game shows and pub quizzes, where contestants try to recognize songs as quickly as possible. We can more precisely call this competitive identification listening. This is a non-aesthetic mode of listening, as there is no interest in appreciating the sounding shape or structural features of the work.
Show card 1: George Michael, Careless Whisper

Your knowledge of popular music from the 1980s is here playing a heightened role. And there is an emotional dimension to this, with feelings of either frustration or triumph shaping your experience. Some of you will have recognised the iconic melodies from George Michael's Careless Whisper and Glenn Fry's The Heat is On, but struggled with the other two. Australians in the audience may have recognised the saxophone solo from Inxs's Never Tear Us Apart; the song was played at Michael Hutchence’s funeral, has been employed by Australian sporting teams, and used in advertisements by the South Australian tourist board. The appropriation of the song in these contexts has triggering new sets of associations amongst listeners. Perhaps only fans of saxophonist Clarence Clemens will have recognised the transcription of his solo from Bruce Springsteen's Born To Run, not least because the hillbilly styled arrangement was a musical red herring.

Repeat several times underneath the spoken text (approx. 8 times). After the final words are spoken (“was a musical red herring”) continue to the end of repeat and then continue on.

Show card 2: Glenn Fry, The Heat is On
subito $\frac{4}{4} = 84$

**Show card 3:** Bruce Springsteen, *Born To Run*

**Show card 4:** INXS, *Never Tear Us Apart*

**Show card 5:** Next: improvised solo, live After showing card 5, lecturer moves to sampler.
Final Part

Solo! Upbeat, 1950s early rock style

Tenor Saxophone in B♭

Synthesiser

Sampler

Performed by lecturer
Repeat until lecturer has removed card and is ready.
We've considered different ways we attend to music, such as focussing on the materiality of sound; locating musical style; considering how music relates to titles; and how musical works activate questions, such as What is going on in this composition? Listening. We can characterise each of these as: thinking about what we are hearing.

But, other aspects of listening are less cognitive - less concerned with perception, reasoning and evaluation. Listening to music can trigger powerful memories and associations that take hold of us, with our subconscious running the show. It can also generate emotional responses and provoke physical reactions, such as the release of muscle tension that results from the resolution of a dissonant harmony.

Listening experiences are complex, because they activate cognitive, associational, emotional and physical reactions simultaneously. For instance, during the saxophone solo you evaluated the quality of the solo, whilst also had the physical urge to dance. The 1950s style may have also triggered a general state of nostalgia or a set of personal memories.
Sometimes these reactions are even in conflict with one another, such as when we evaluate a musical work negatively, but our body nonetheless feels the positive urge to tap your foot. Likewise, we might feel cognitive dissonance when we find ourselves enjoying a style of music that in principle we feel negatively towards.

Repeat until text is finished.

Finally, beyond the conscious act of *listening* there is also *hearing* — the ear simply receiving sound. Whilst *hearing* might be passive and involuntary, music can still powerfully affect us even when we are not paying attention to it. In an article about the relationship between music and shopping, Jonathan Sterne suggests that within a high-end lingerie shop, unobtrusive classical music confers a refined and aristocratic sensibility upon the products.

*diminuendo to p* over first repeat, then continue *diminuendo toiente* as the text reaches “unobtrusive classical music...”
And that upbeat Muzak is played in the hallways of shopping malls in the middle of the afternoon to pick up consumer energy at that sluggish moment in the day.
Sop Sax

36

molto staccato

Synth
epic synth

39

f (non dim)

Sop Sax

36

molto staccato

Synth
epic synth

42