KlattGrid

Here are the exercises and discussion points to cover in the breakout rooms. I'll be circulating around the rooms during each breakout, but I won't manage to get to each one every time so please use the 'Ask for help' function if you have any questions or need any technical support. There will also be a chance for you to share anything interesting you find when we return to the main session after each breakout.

Breakout 1: Getting started with KlattGrid

Open and run the script 'Intro to KlattGrid.praat' from the Object window to get started (Praat -> Open Praat script)

Go to 'Edit phonation' and then have a look at the relevant parameters:

- **Open phase:** the fraction of one glottal period that the glottis is open (Between 0 and 1, default 0.7)
- **Flutter:** quasi-random variation in pitch (between 0 and 1)
- **Spectral tilt:** Extra tilt spectral tilt in dB at 3kHz (not H1-H2!)
- **Double pulsing:** Models diplophonia. Delays timing of pulse and attenuates its amplitude. (between 0 and 1)
- **Aspiration amplitude:** Amplitude of turbulent noise in dB

To make a manipulation, go to Point -> Add point at cursor

To add a point at a specific time/value, go to Point -> Add point at…

Discuss: What does it sound like if you:

- Increase or decrease the open phase?
- Increase or decrease the additional spectral tilt?
- Add points in the double pulsing tier?
- Add points in the aspiration amplitude or breathiness tiers?

Breakout 2: Starting with a real voice

1. Open one of the speech samples in Praat
2. Use manipulate -> To KlattGrid (simple) to copy synthesize it using the default settings
3. Listen to the copy-synthesized sample
4. Have a look at the pitch tier (Edit phonation -> Edit pitch tier)
5. Have a look at the formant grid (Edit filters -> Edit oral formant grid)
6. Play around with some of the phonation tiers again to make some voice quality manipulations

Discuss:

- How natural does the copy-synthesis sound?
- What do you think is causing the artefacts?
- What could you do to make the artefacts less noticeable, or get rid of them altogether?

Breakout 3: Working with a script

Open one of the sample sound files, select it, and run the script 'Copy synthesize and change phonation.praat' to create a synthesized modal, breathy and creaky sample

Discuss:

- How natural do the voice quality manipulations sound?
- Can you think of any ways to improve on these settings to create more natural-sounding breathy, modal or creaky manipulations?

Breakout 3: Working with a script