

LING 830 - August 3

Using Praat

Exploring consonant and vowel acoustics

Notes on *tsiitmuhw* by an L2 speaker

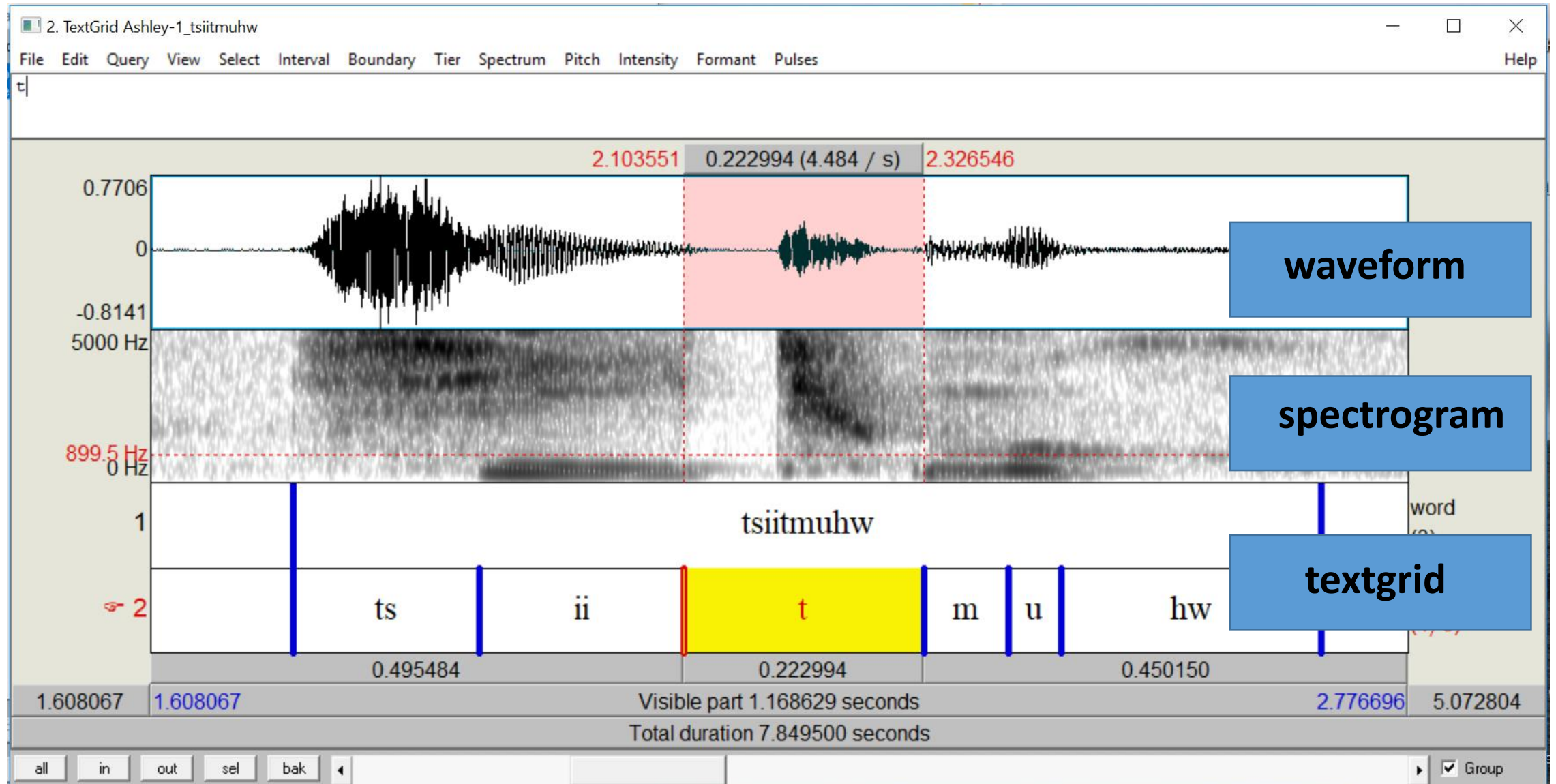
- First try

Change	What's happening
ts → st	The order of the sounds is reversed (“metathesis”)
t → ‘	The t is replaced with ‘unuhw (“lenition”)
labialized u → non-labialized u	I think this is related to hw → x: the consonant is not labialized, and so neither is the preceding u (“de-labialization”)
hw → x	Two things are happening here: 1) the velar fricative is being backed to the uvular fricative (“backing”) and 2) the fricative is losing its labialization (“de-labialization”)

- Second try (additional changes)

Change	What's happening
ts → ts’	The order of the sounds is now right, but the ts is pronounced as an ejective (“glottalization”)
ii → i (not sure about this)	Some of us heard the vowel as shortened a bit, although it’s not shortened a lot according to Maida’s measurements

Let's see what all these things look like...

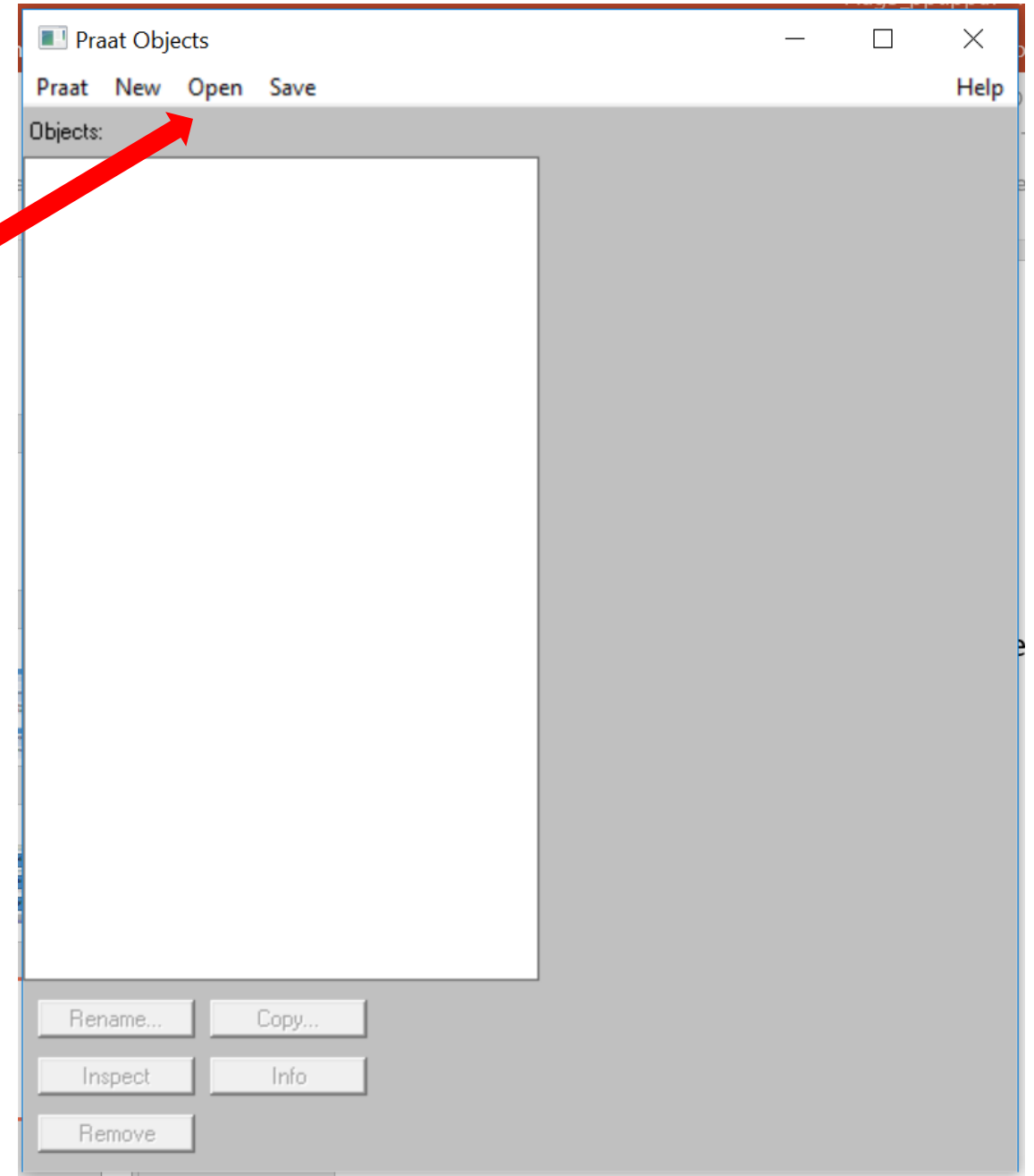


Some things to notice

- Manners of articulation:
 - Fricative /s/
 - Vowel
 - Stop /t^h/
 - Note release: aspiration ~ frication
 - Compare with English 'bitmap': unreleased and glottalized
 - Nasal /m/
 - Vowel /u/
 - Fricative /hw/

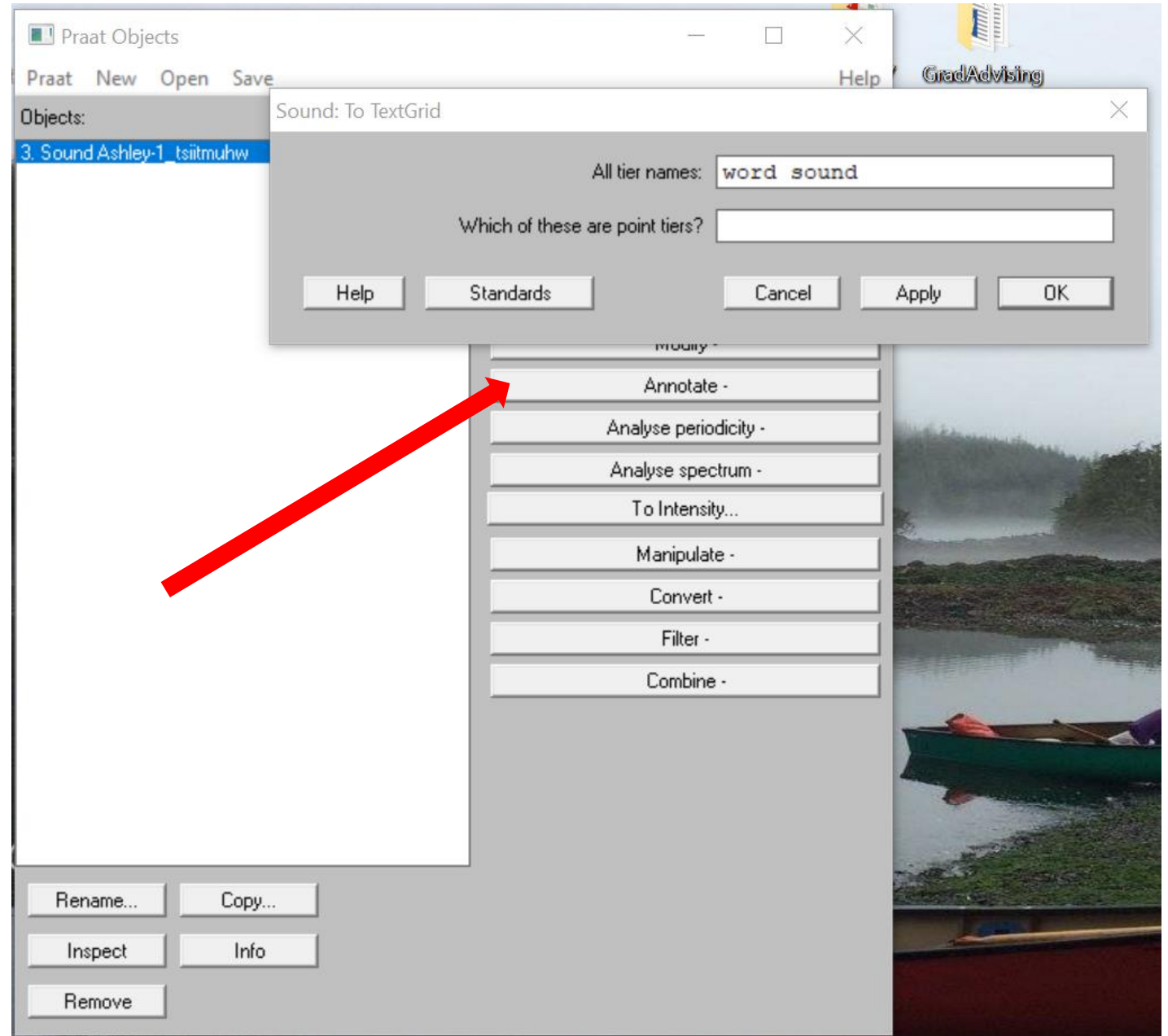
Praat basics

- Opening sound files
 - Open Praat (pink lips)
 - Praat > Open > Read from file...



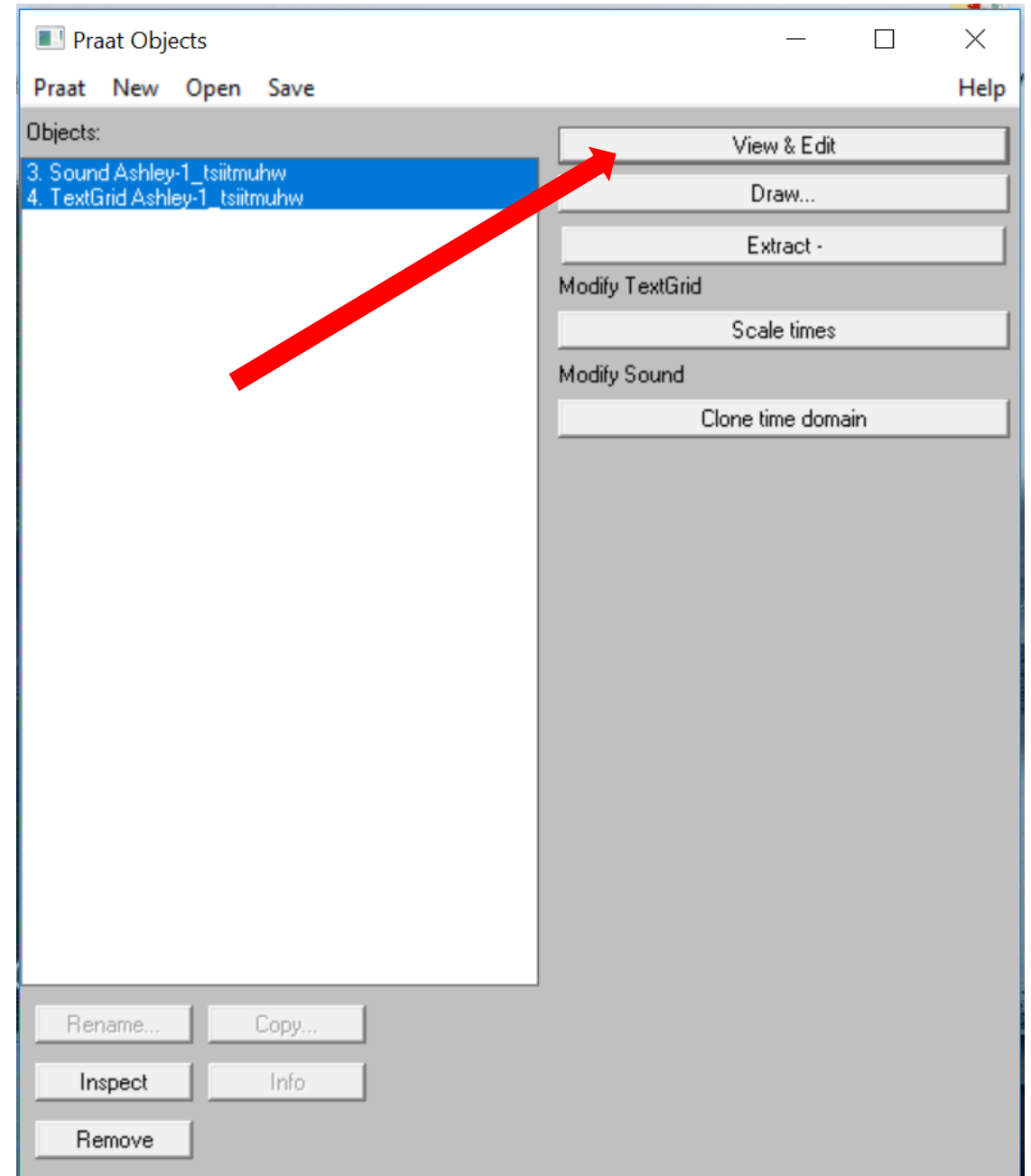
Praat basics

- Creating a textgrid
 - Highlight the sound file
 - Annotate > To TextGrid...
 - All tier names: **word sound**



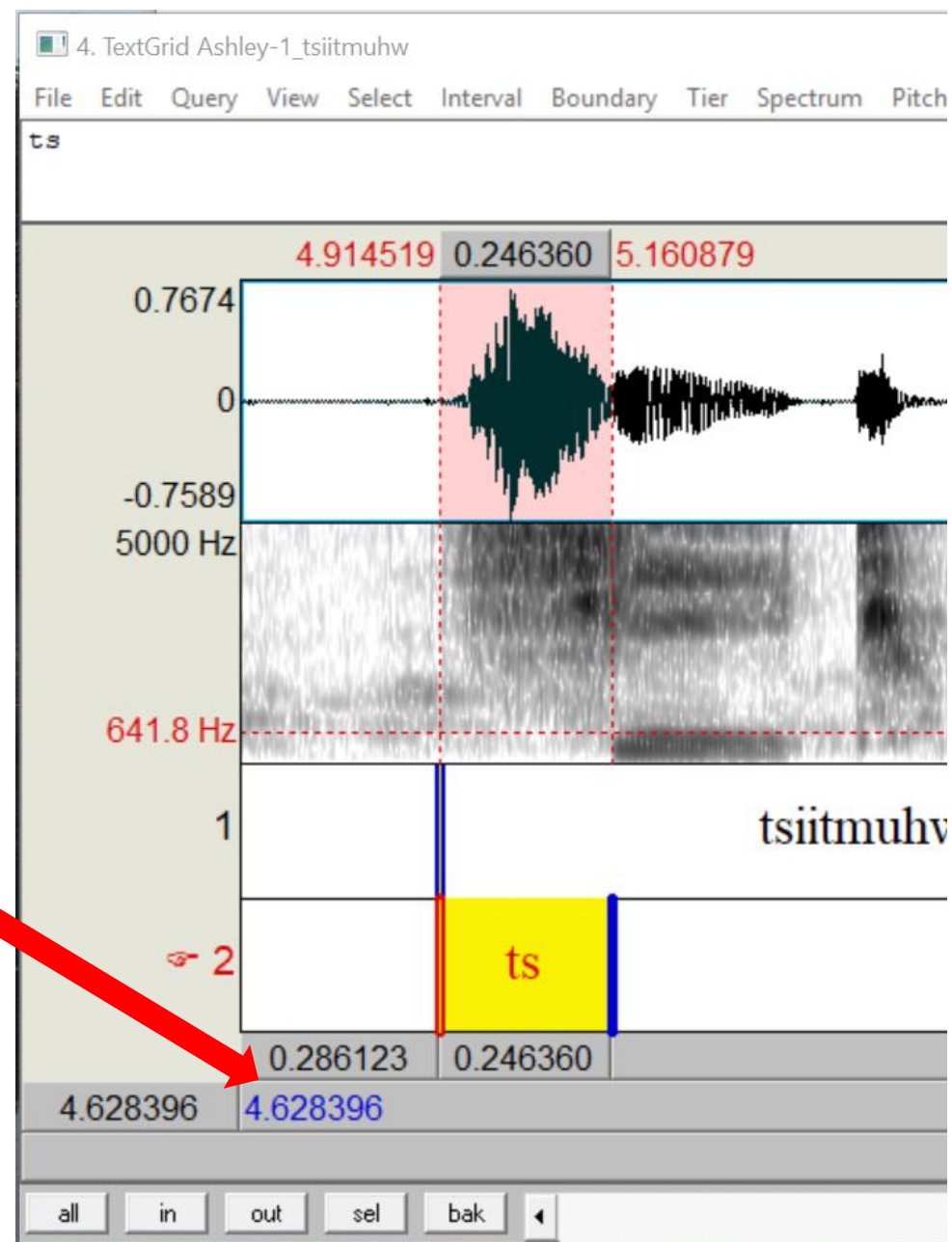
Praat basics

- Opening a sound file + textgrid
 - Highlight both, using Shift or Ctrl




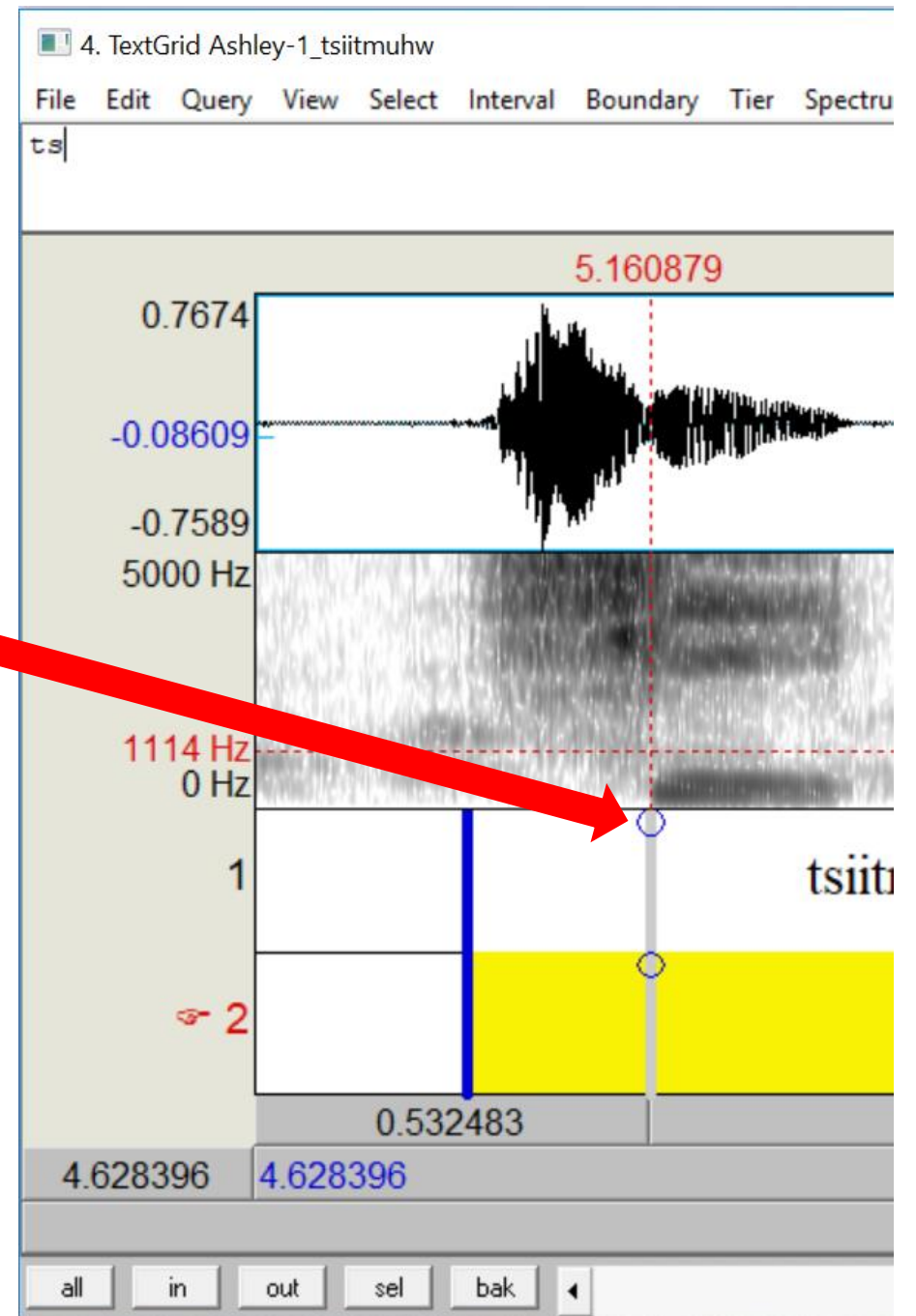
Praat basics

- Listening to a sound file
 - Top bar: just the selected interval
 - Middle bar: sound file section displayed in the current window
 - Bottom bar: whole sound file



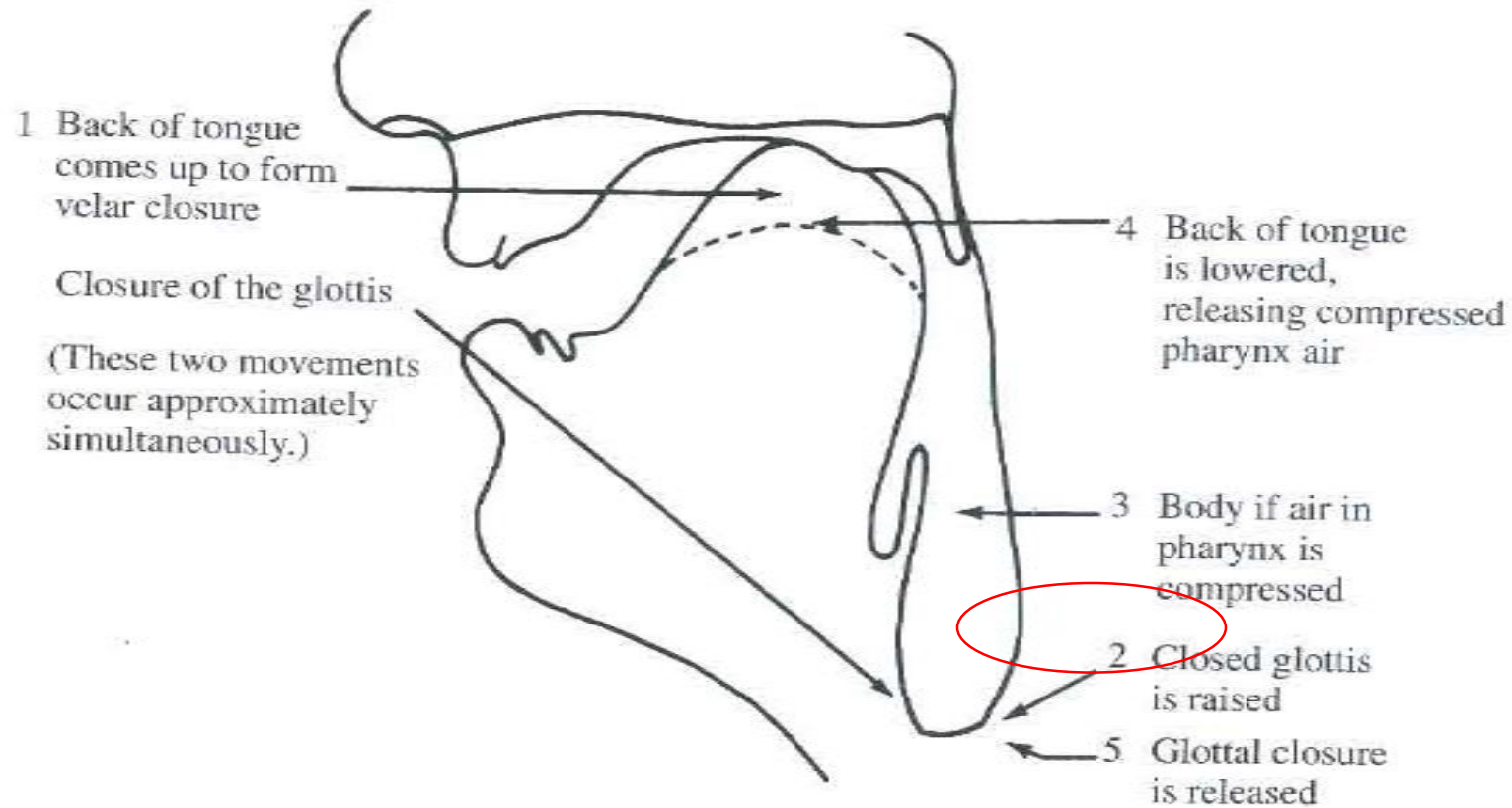
Praat basics

- Marking up a textgrid
 - Place the cursor on the **spectrogram**, in the spot where you want to place a boundary
 - On the **textgrid**, circles will show up 
 - Click in the circle to place a boundary
 - Use Alt + backspace to delete a boundary (if you make a mistake)



Ejectives: Traditional understanding

Figure 6.1 The sequence of events that occurs in a glottalic egressive velar stop [kʼ].



Ejectives – a little more

- Traditional understanding (Ladefoged & Johnson, 2011)
 - Larynx closed
 - Oral constriction
 - Larynx raised >> Pressure increase in the oral cavity
 - Oral constriction released >> poppy
- More recent understanding
 - Larynx/pharynx closed
 - Oral constriction
 - Larynx doesn't always raise >> no single effect on pressure
 - Oral constriction released >> poppy [t'] or creaky [ɾ]

Ejective typology: strong ←————→ weak