Praat-py:
The Force Unleashed!

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Linguists

- We <u>don't</u> speak many languages!

- We know **much** about languages!

- 我們不一定會說很多種語言！

- 我們知道很多關於語言的特性！

What is this talk about?

- What linguists do with vocal sounds.

- Why Praat is a cool tool.

- How Praat script helps (and not help).

- Savior: Praat-py

- 語言學家拿「語音」做什麼？

- 為什麼 Praat 很酷！

- 那 Praat script 有什麼好處（壞處）？

- 救星： Praat-py

Frequency? Pitch (tone)?

- ***Frequency*** is a physical term.
- ***Pitch (tone)*** is a linguistic term.
- In most occations, they refer to the same thing!
- A sound of 3 frequencies/pitches is like this...

- <u>頻率</u>是物理學上的定義
- <u>音調</u>是語言學上的定義
- 大部份的情況下，這兩者是一致的！
- 一個具有 3 個頻率 / 音調的聲音聽起來像這樣…

Language is about pitch

- Pitch is more about what you ears hear,

   but not what physically the sound is!

- How many pitches do you hear in these sounds?

- 音調和你的耳朵的聽覺感知比較有關係，

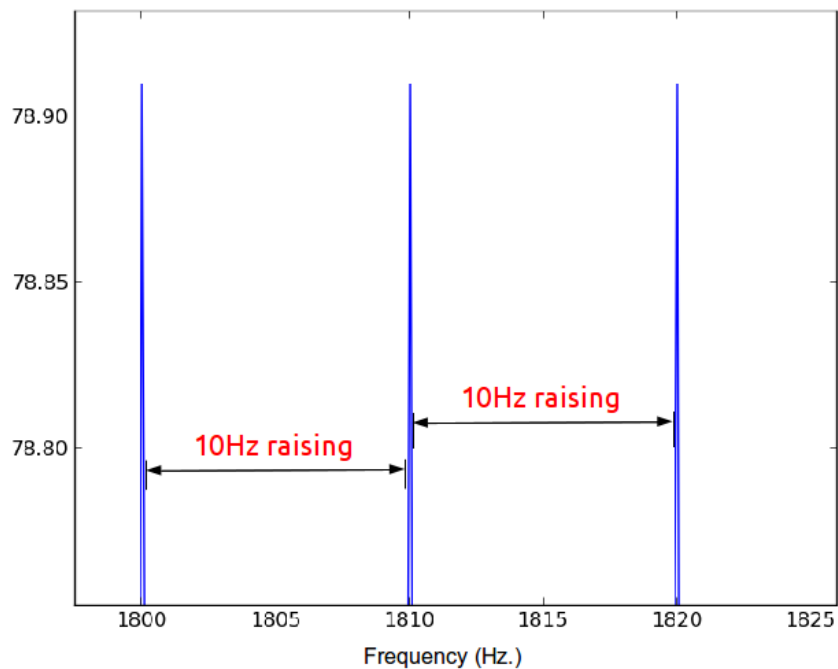   而不是和聲音的物理特性有關！

- 在這些聲音裡，你聽到幾個音調？

What do you hear?

- A). 1st sound has 1 pitch;
  2nd sound has 3 pitches.

  B). 1st sound has 2 pitches;
  2nd sound has 3 pitches

- C). I hear something else...

- A). 第 1 個音有 1 個音調;
  第 2 個音有 3 個音調。

- B). 第 1 個音有 2 個音調;
  第 2 個音有 3 個端嗰
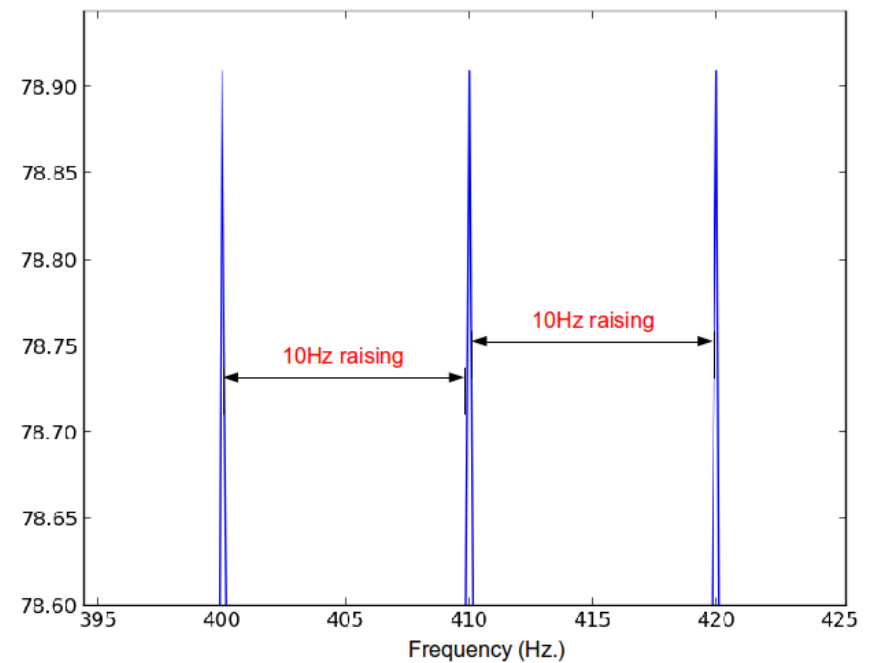
- C). 我聽到其它東西…

Answer

- Physical fact: both sounds have 3 frequencies with equal difference！

1st sound

2nd sound

- 物理事實：兩個聲音都有三個音頻，且每個音頻間的頻率差異是一樣的！
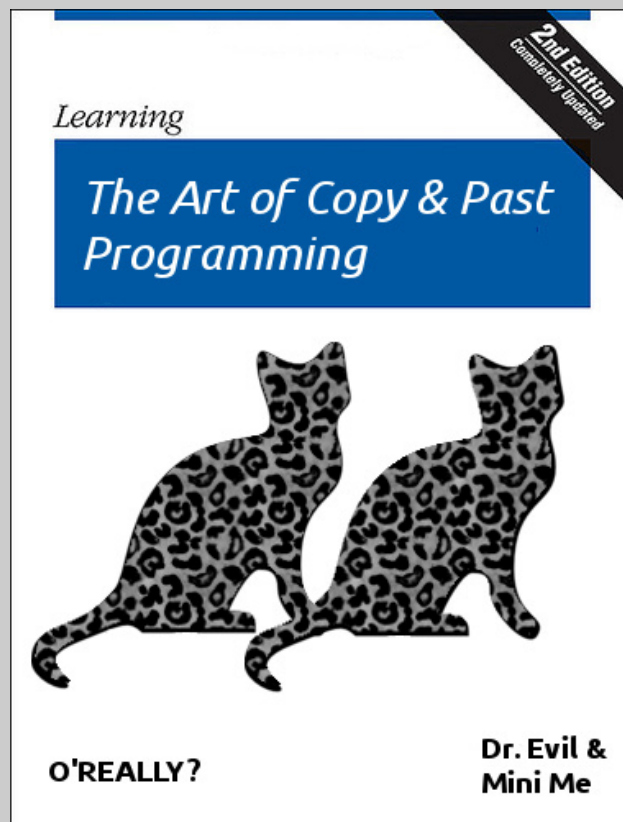
A tool to reflect what we hear

- By default, Praat trys to show the difference according to how you hear, but not how the sound is.

- 預設條件下， Praat 企圖呈現的是聽覺感知上的結果，而非物理上的數值測量結果

How Praat script helps

- Execute once and past the history!

- 執行一次，再貼上記錄，就寫好 Praat-script 了！

How Praat script not helps

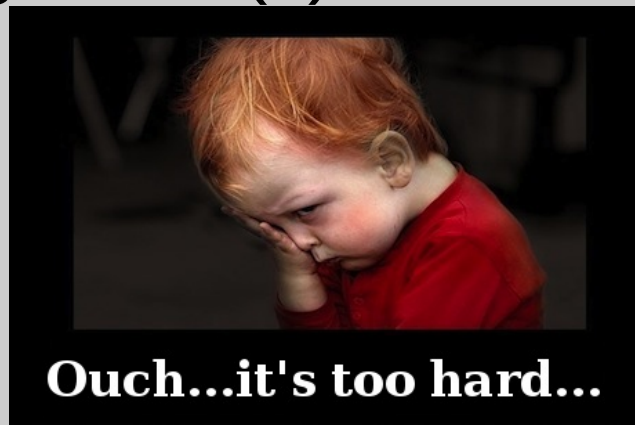- What if I have 6000+ sound files?

(and we usually do!)

- 那要是我有 6 千個音檔呢？（挫塞！）

Could it be any worse?

- Praat-script is insensitive to indention, yet it doesn't allow brackets.

- It's space is reserved to seperate a function from its argument(s)...well...in most cases.

Ouch...it's too hard...

- Praat-script 可隨意縮排，但不能用括號。

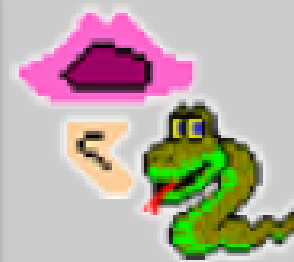- 它的空格「偶爾」會用來區別函式和參數…不過其實不加空格有時候也沒關係。

Praat-script

- When I read a praat script that has been modified by many other people with many different style, I am like...
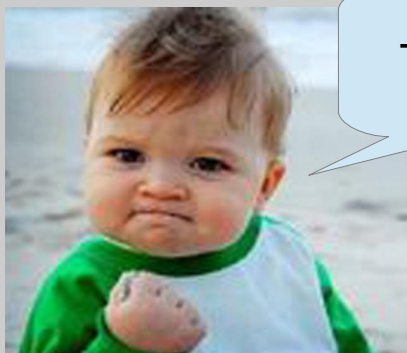

- 每次我讀到轉過許多手，充滿不同風格的 praat-script 時的表情…

Praat-py: a python wrapped version of Praat

- There are only two functions:

  - go() means "mouse clicking"
  - getString() returns the string data

That's it!

- 總共只有兩個函式的包裝：

  - go() 表示滑鼠點擊。
  - getString() 取得回傳的字串。

Praat-py

- Summary
  - Praat is easy to learn and good to use.
  - Praat-script is rather idiosyncratic.
  - Praat-py combines the advantages of both Python and Praat
  - How about a PyPraat?
  - Questions and Comments

Reference

- Praat: http://www.fon.hum.uva.nl/praat/

- Praat-py: https://github.com/tauberer/praat-py