

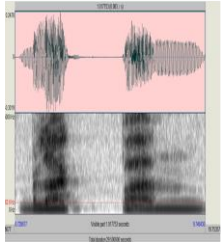
“Could you say [læpˈtʰɒpˈ]?”

unreleased plosives by advanced French learners of English: the efficiency of an awareness approach

MAELLE AMAND & ZAKARIA TOUHAMI



Introduction & research questions



Degree of unreleased stops amongst French learners of English.



Suggestions for online teaching and assessing material



Better results with gesture and awareness?



which technique was more useful for each level?

Immediate imitation versus audio visual conscience awareness in learning

Imitation

Rojczyk (2013)

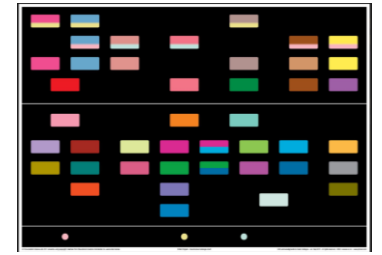
=> “natural process”

=> “fine-grained phonetic features” can be reproduced

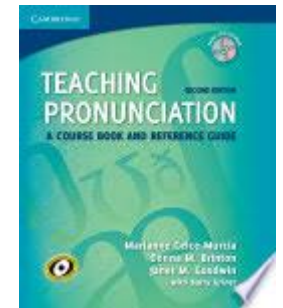
Gesture

Goldin-Meadow (2003)

=> “...gesture does more than reveal thoughts – it plays a role in changing those thoughts” (Goldin-Meadow 2003)



Silent Way® *learning with mime and awareness.*



By Celce-Murcia,
Brinton, Goodwin 2010

Research on plosives in language variation and SLA:

■ Varieties of English:

■ Davidson (2011) on spontaneous speech:

- “approximately a quarter of the stops followed by a consonant were released, but release was strongly affected by the place of the stop and the manner of the following consonant”.

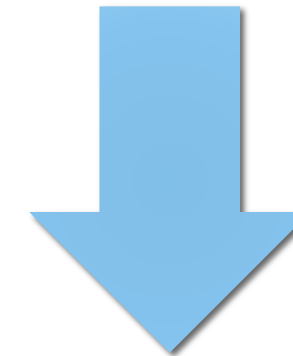
■ Second language acquisition:

- Šimáčková & Podlipský (2015) => Czech learners of English
- Rojczyk (2013) => Polish learners of English

More released



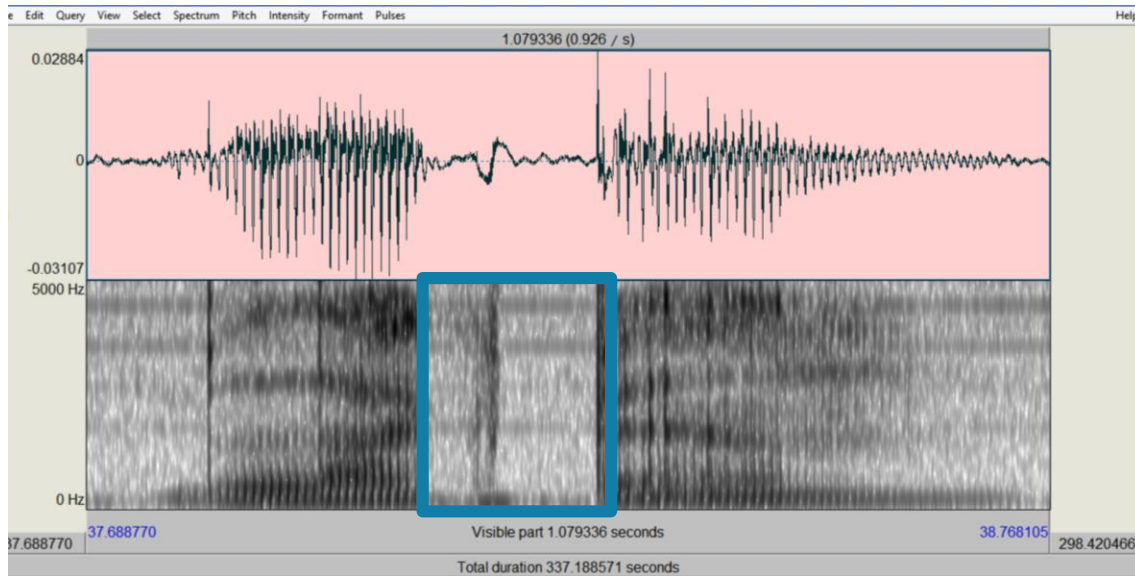
- Homorganic pairs straddled between words: p p, k k or t t
- /p/ /t/ more often unreleased than /k/



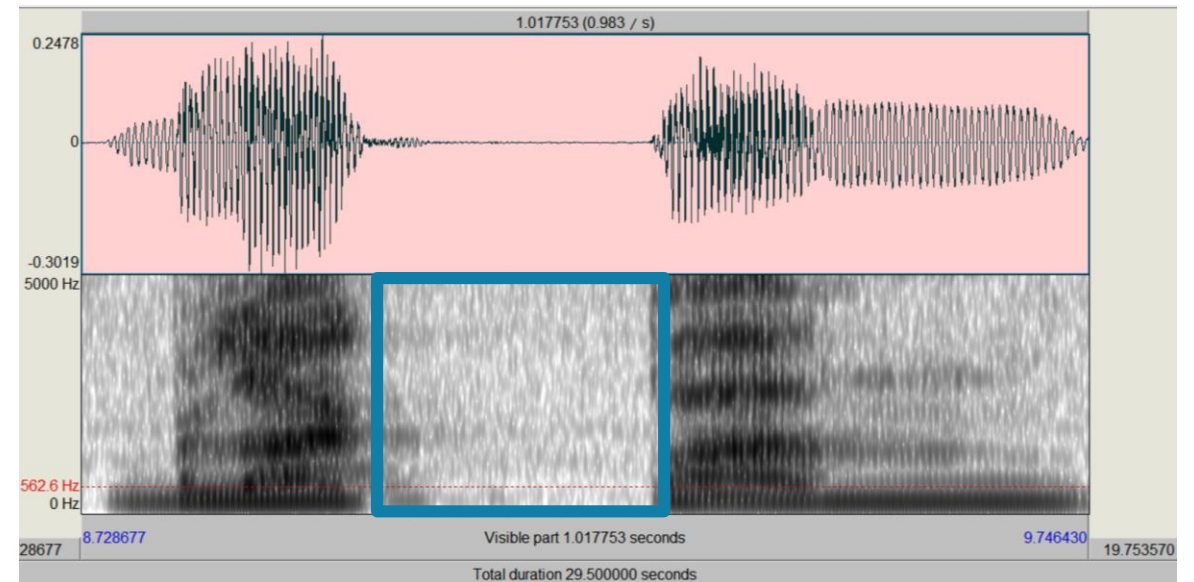
- Final position
- Heterorganic pairs.
- /k/

Less released

Spectrographic representation: “black pan”



Released



Unreleased

French-accented learners of English



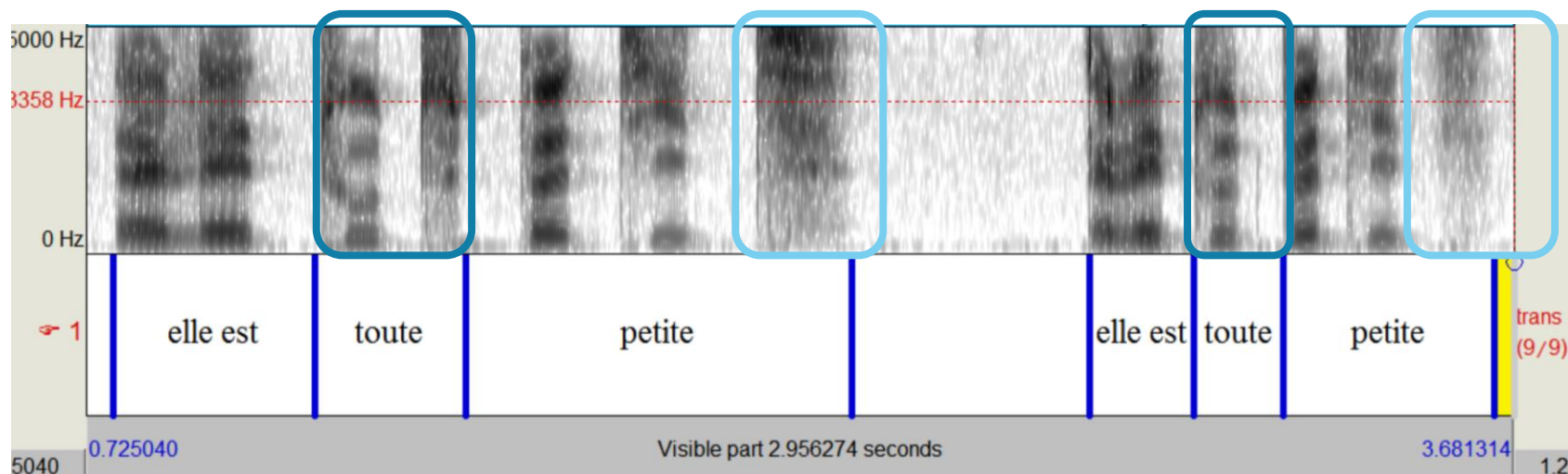
Van Dommelen WA (1983 & 1985),
Tran & Vallée (2007 & 2009)

- More released in sentence final : “elle est toute petite” (Tran & Vallée, 2009)

Translation: “she is tiny”.

- A certain degree of non release in plosives straddled between words in: “elle est toute petite”.

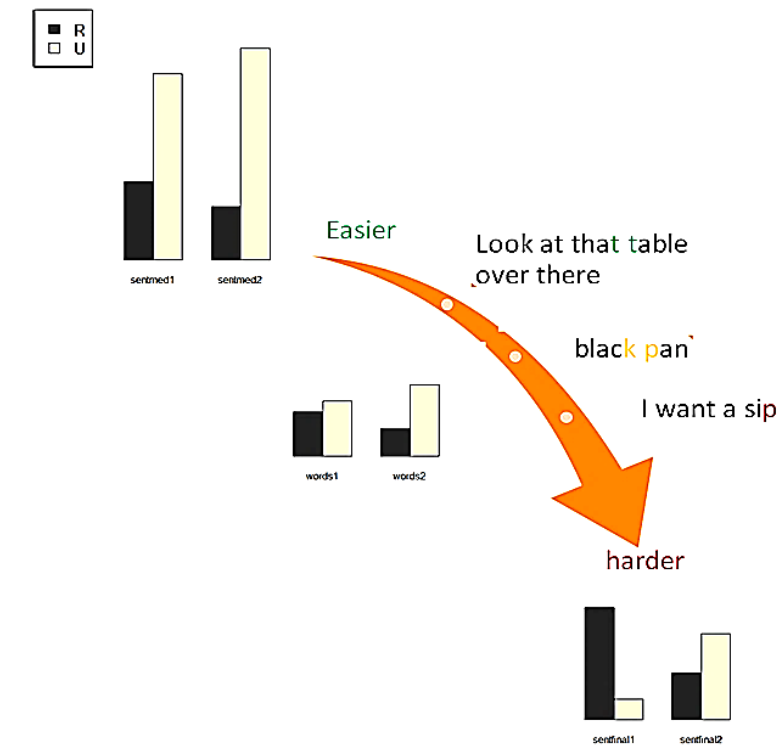
Except in Southern French



The Pilot experiment (Amand & Touhami 2016).

Speakers: n = 12

- Secondary school students (level A)
- Adults not specialised in English (level B)
- 2nd year students of English or Master degree (level C)
- => Adults perform better after an awareness approach with articulatory training.
- => Utterance final plosives and heterorganic pairs of stops are significantly more often released than homorganic pairs.
- => /k/ is the least unreleased while the unrelease of /p/ is more easily produced by learners.



The Present study

- 26 Second year students of English.
- 2 groups (1 control $n=13$ + 1 test $n=13$)
- Sound attenuated room (University of Paris Diderot).
- Praat (Sampling frequency 44100Hz)

Materials & stimuli

- **Voiceless stops** : bilabial , alveolar and velar
 - [p^h], [t^h], [k^h]
- **Words & pairs of words (n=9)**
 - “a trap^p”
 - “that^t cat”
- **Sentences**
 - “Stop^p talking please!” (n=24)
 - “Yes, yes, all right^t!” (n=24)

=> 2 repetitions

Measurements

- **Rojczyk et al. (2013) vs Henderson & Repp (1982)**
 - Binary variable: R / U
 - Release => audible & visible on Praat (Boersma & Weenink 2016)
- **Number of tokens measured: 2808**
 - 26 participants (13 control, 13 test)
 - 18 words (**paired** plosives)
 - 12 sentence (**final** plosives)
 - 24 sentences (**straddled** plosives)

Building the tutorial

The teaching strategy: raise awareness and help to pronounce

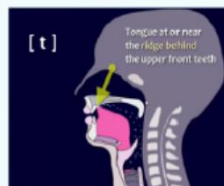
Who?



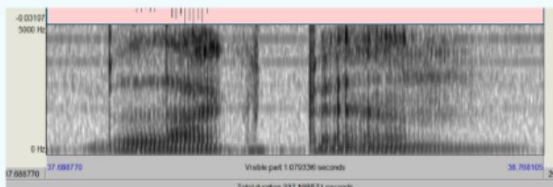
&



How?

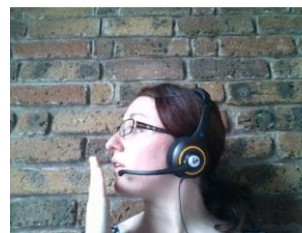


Proof, please?



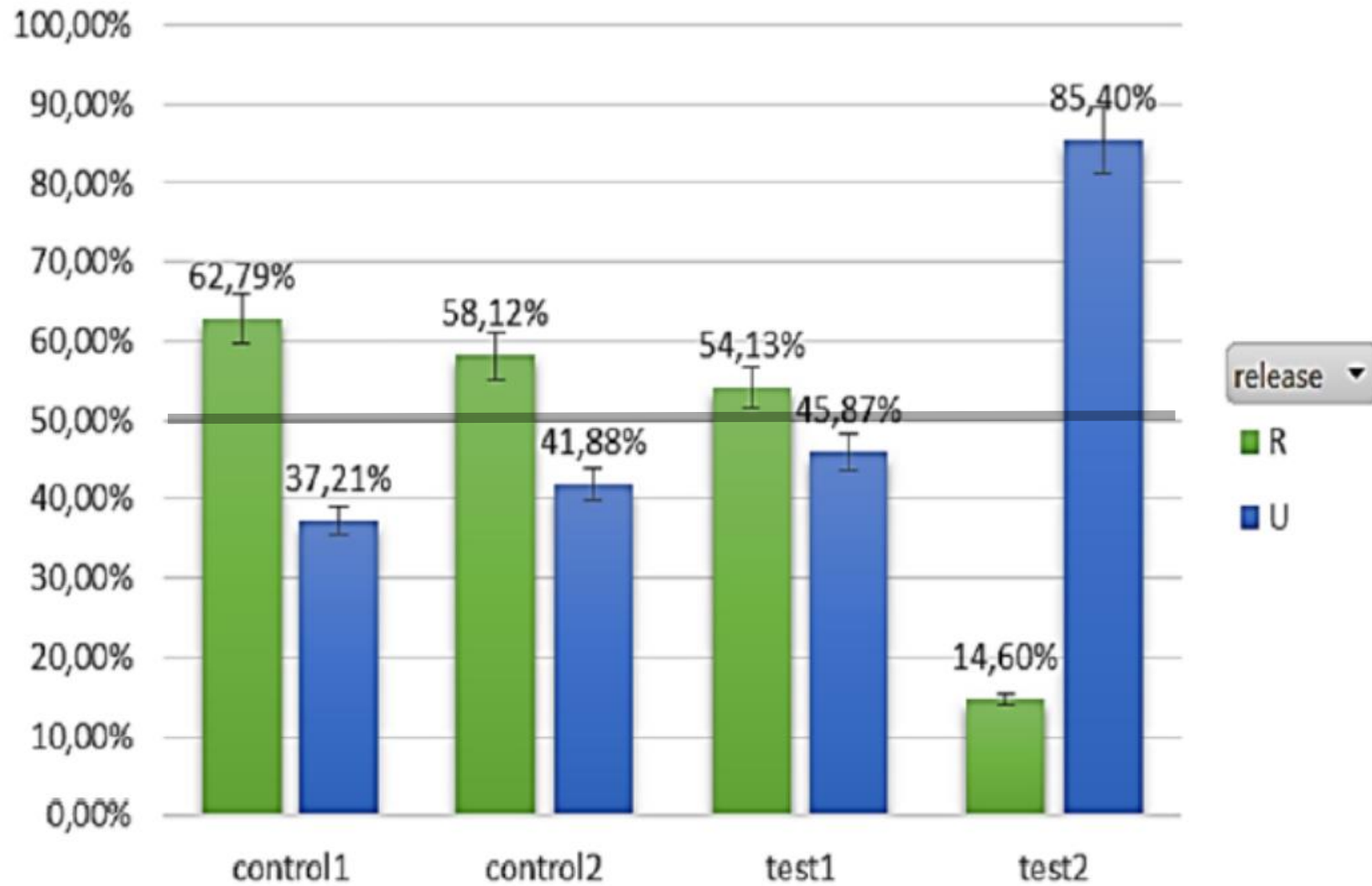
12

Phonetic awareness : audio visual correction



- I went to the cinema last **nigh**.
- I'm going out **tonigh**.
- Yes, yes, all **righ**.
- I need to make things **righ**.
- Do you wanna **figh** ?
- Are you really gonna **figh** ?

Overall proportion of release by group and phase

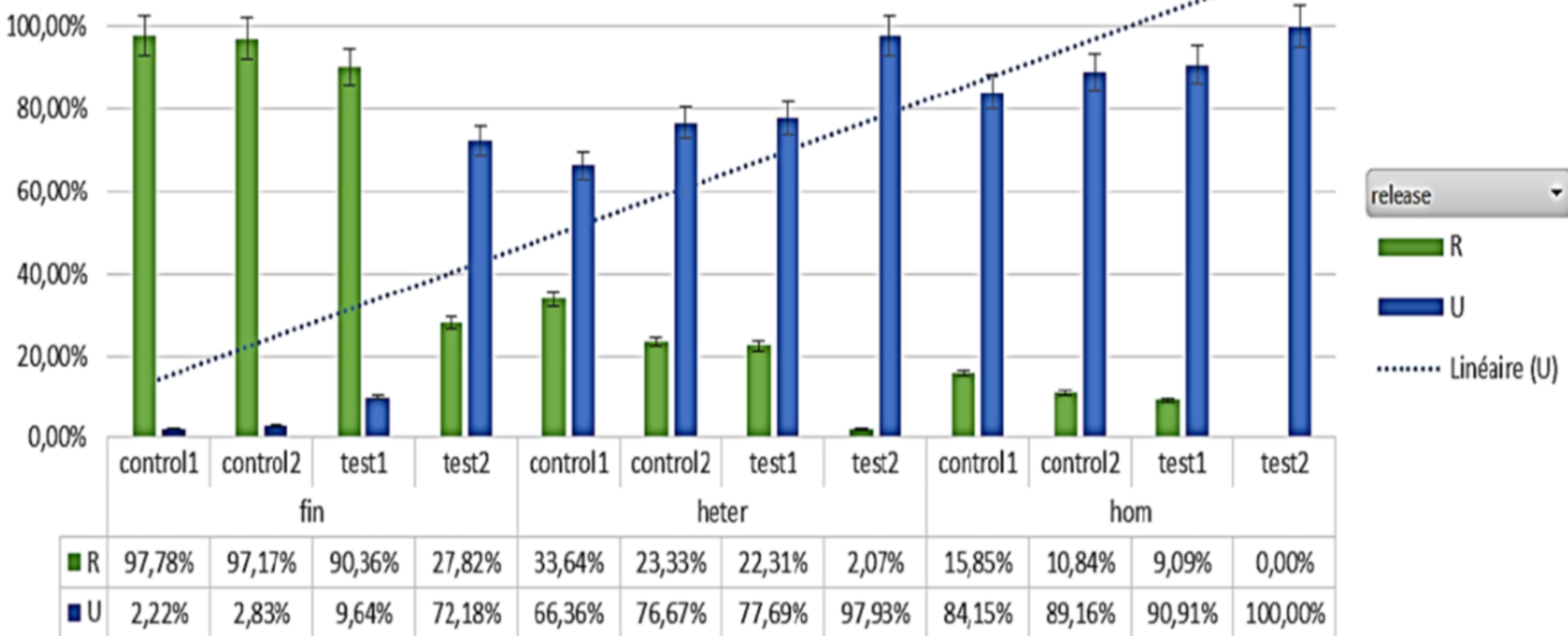


Proportions of bursts by group and plosive combinations

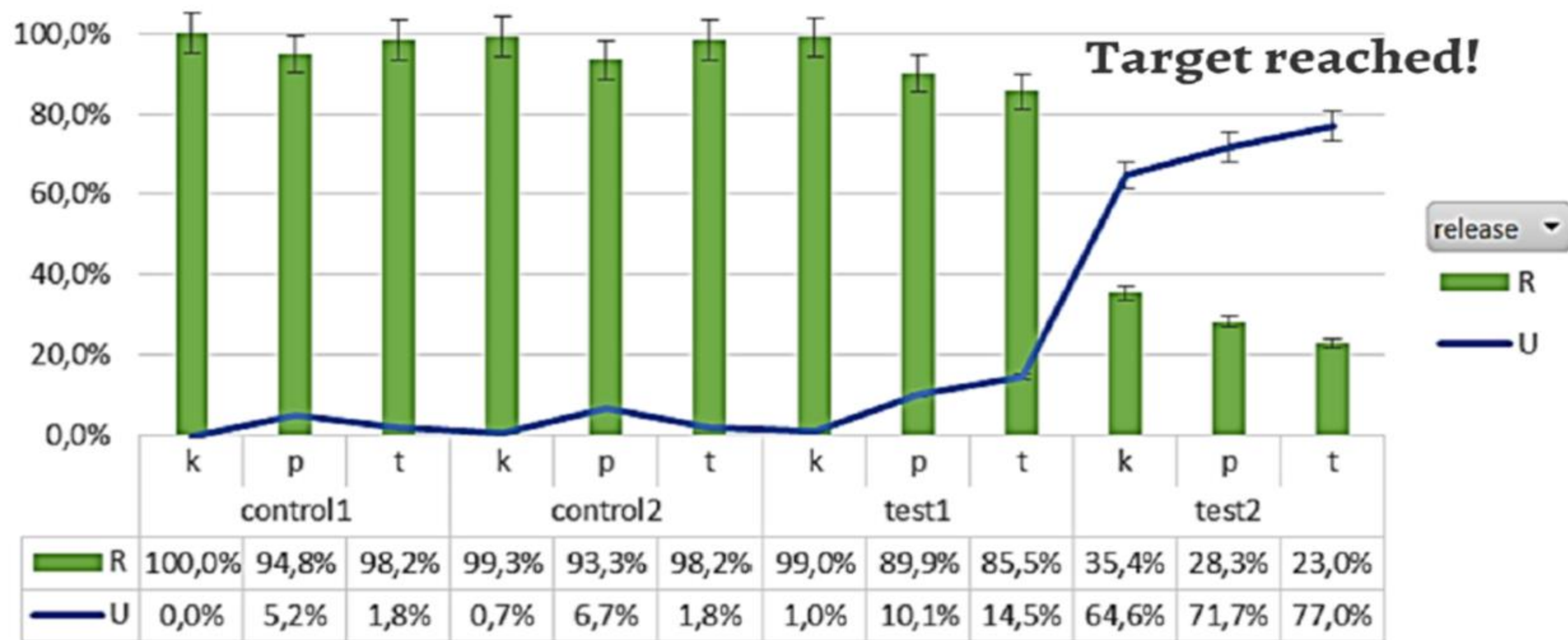
To be mastered

Nearly mastered

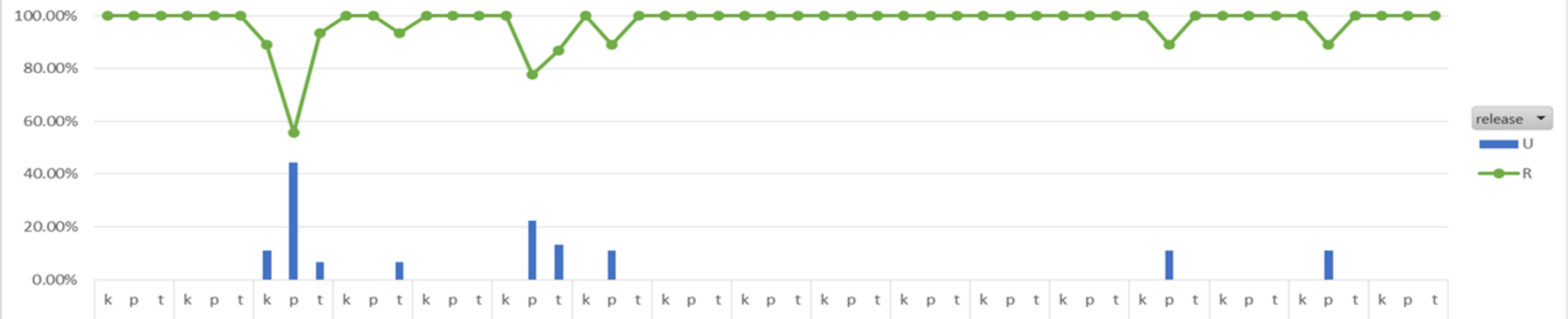
Mastered



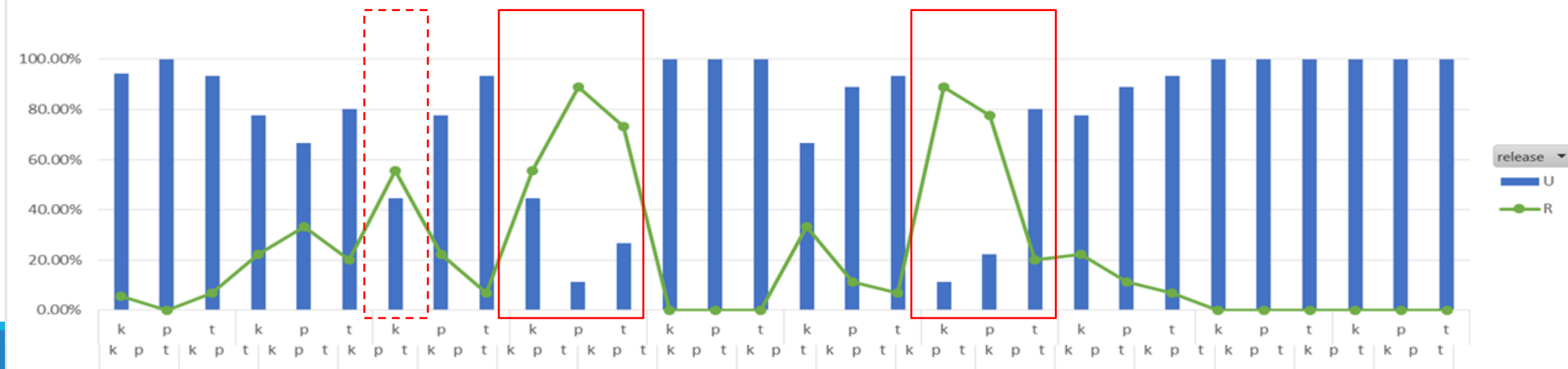
Proportions of bursts by plosive



Individual proportions of bursts by stop in final position control 2

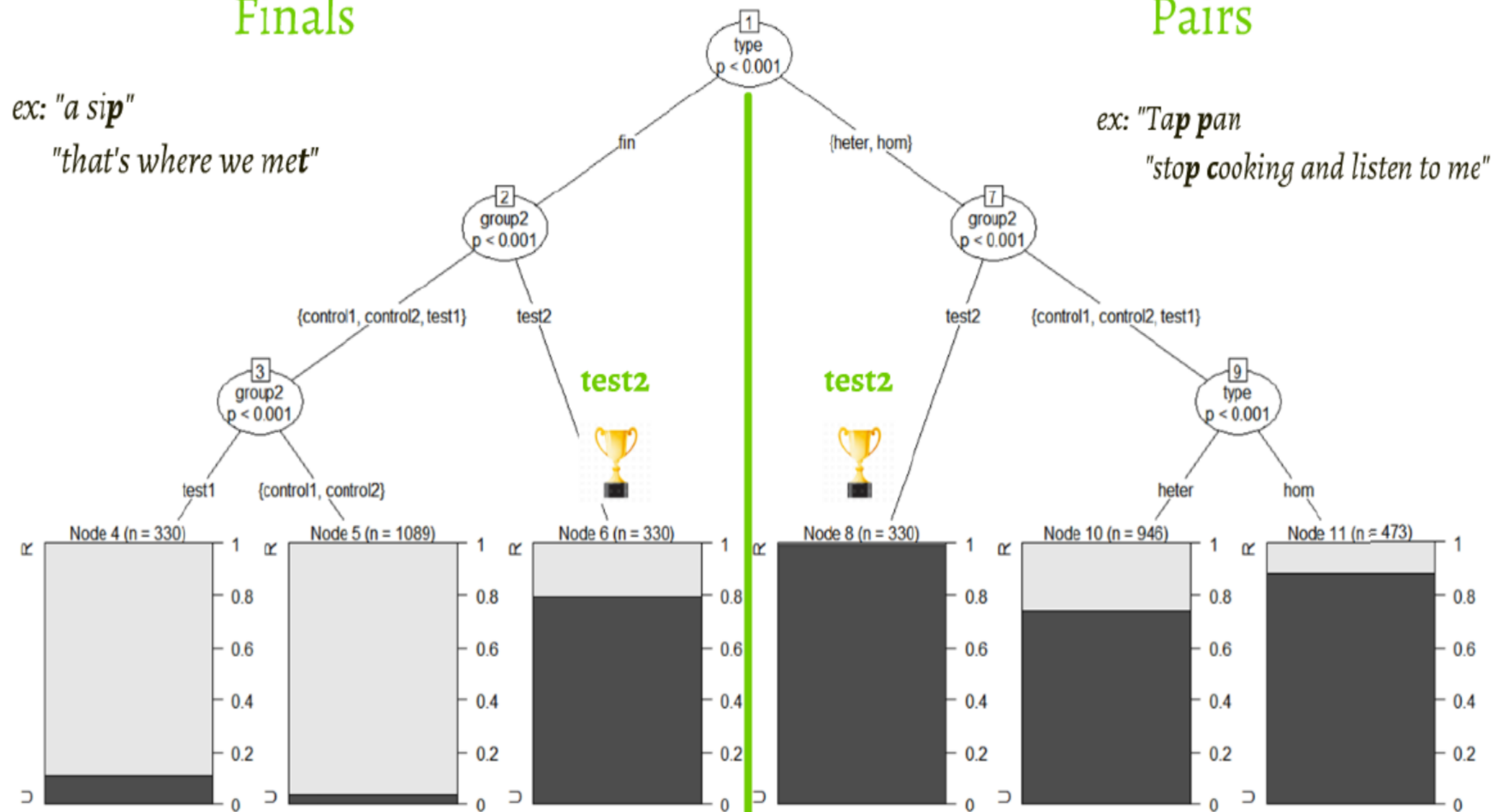


Individual proportions of bursts by stop in final position test 2

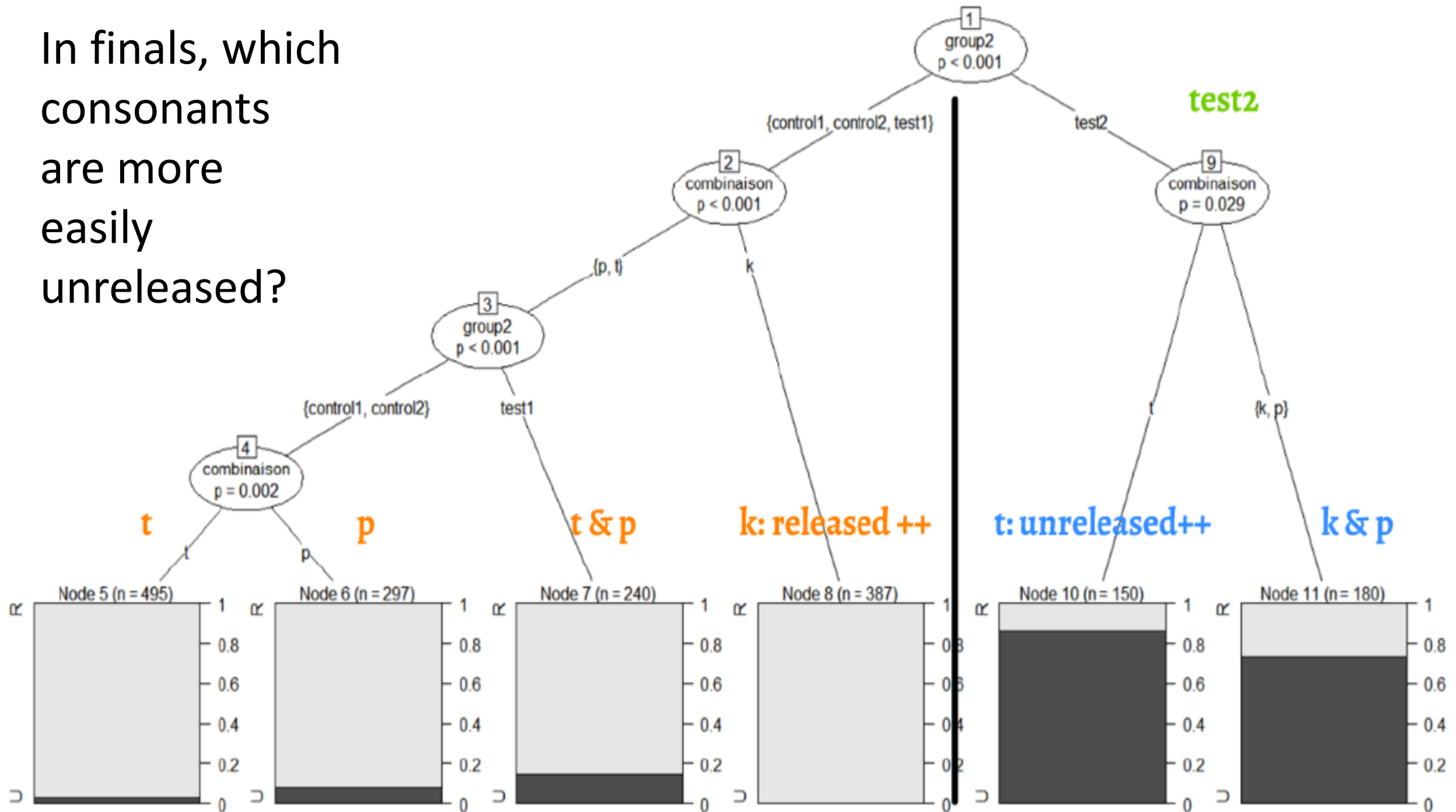


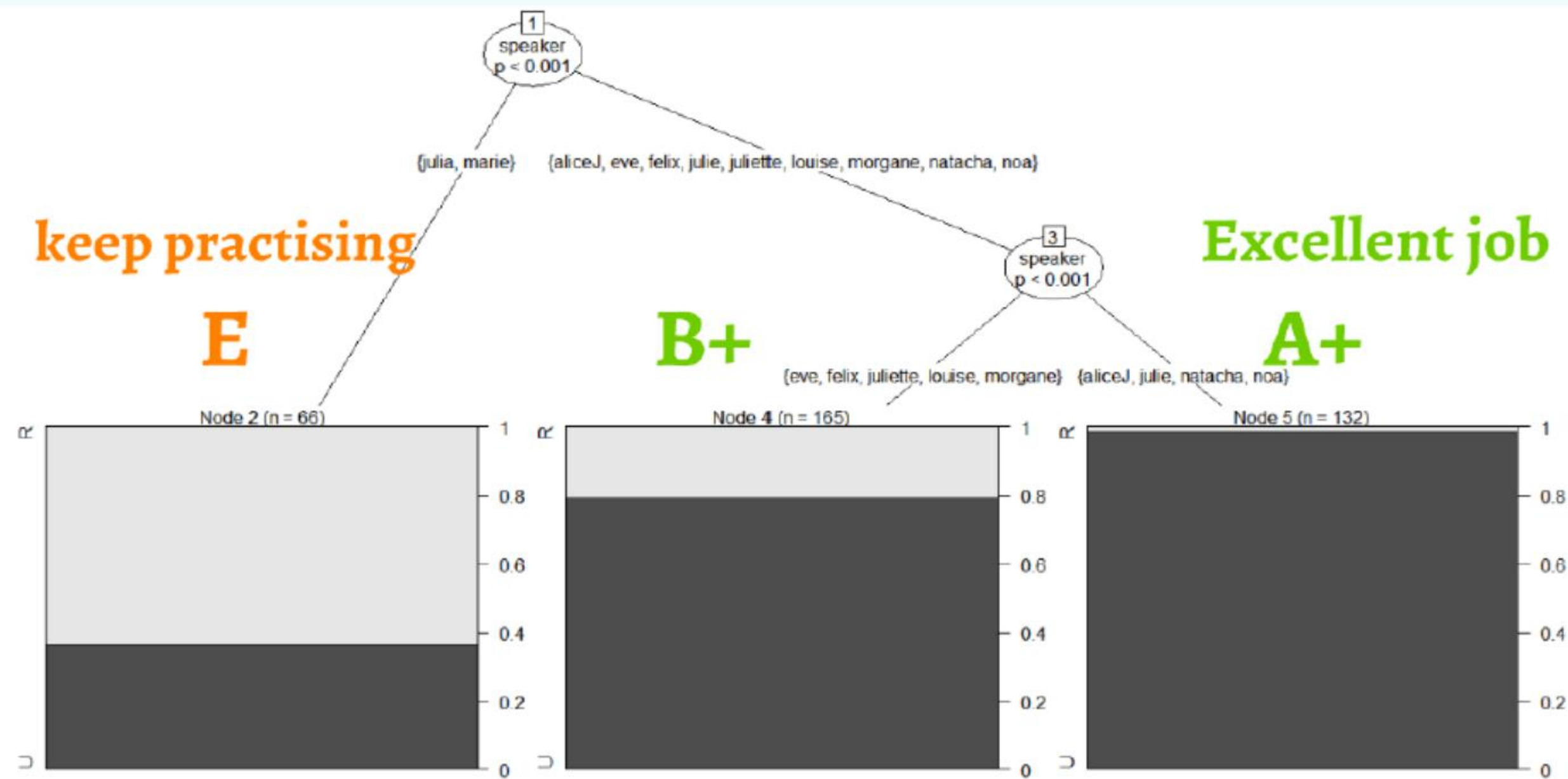
Pairs

ex: "Tap pan
"stop cooking and listen to me"



In finals, which
consonants
are more
easily
unreleased?





- 3 groups in test 2 (right)= 3 marks.

Conclusion

- Audio visual correction works best for advanced students
- Online: less time for teachers but more results
- Need for a variety of tips to reach different learning profiles
- Specific exercises needed before a multiple criteria assessment

Thank you for your attention

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Kenworthy, J. *Teaching English Pronunciation*. London: Longman, 1987.

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Piske, T. "Phonetic Awareness, Phonetic Sensitivity and the Second Language Learner." *Encyclopedia of Language and Education*. Eds. Cenoz, J. and N. H. Hornberger. 2nd ed: Springer Science, 2008. 155-66. Vol. 6: Knowledge about Language.

Rojczyk, A. "Immediate and Distracted Imitation in Second-Language Speech: Unreleased Plosives in English." *Research in Language* 11 1 (2013): 3-18. Van Dommeln, W. "Parameter Interaction in the Perception of French Plosives." *Phonetica* 40 1 (1983): 32-62.

Improvement on final stops:



32 times

more likely to unrelease finals
after awareness and gesture
help.

Final stops

- I went to the cinema last **nigh**t.
- Look at the **rat**!
- That's where he **sa**t.
- I have a **Mac**.



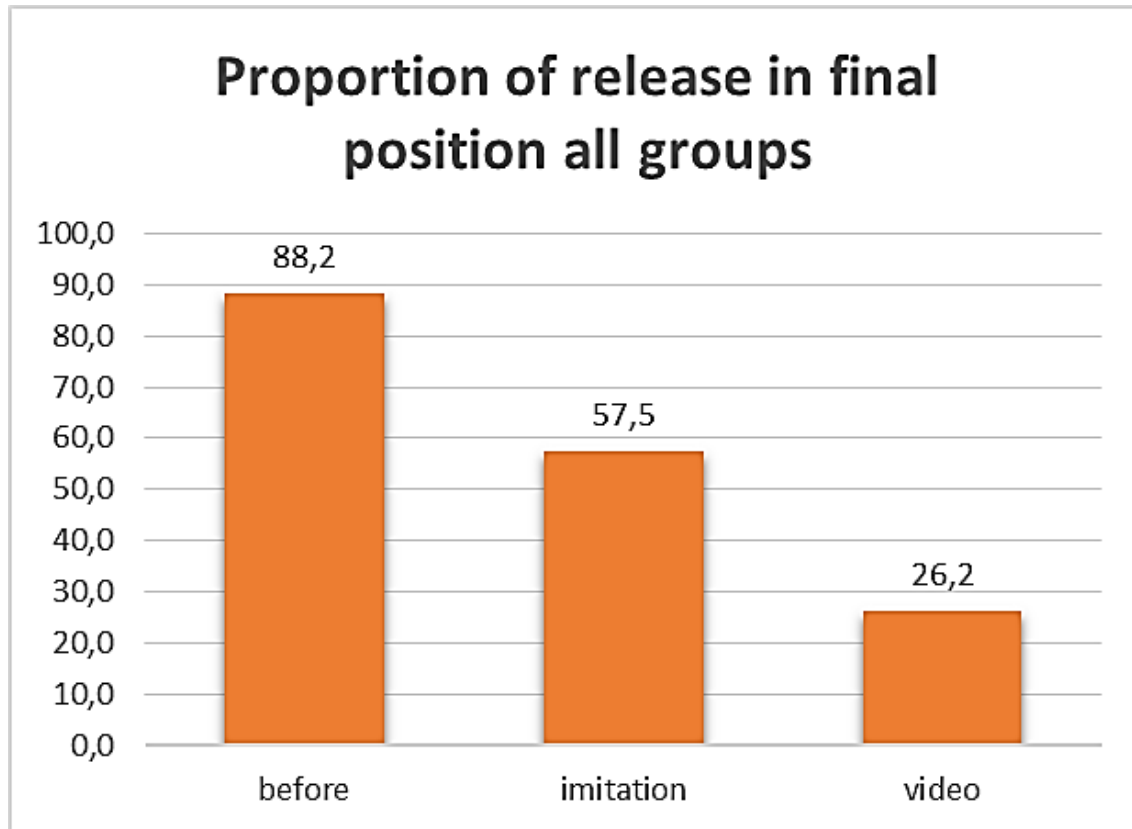
12 times more likely to
unrelease finals after **distracted
imitation**

On average, which task is harder?

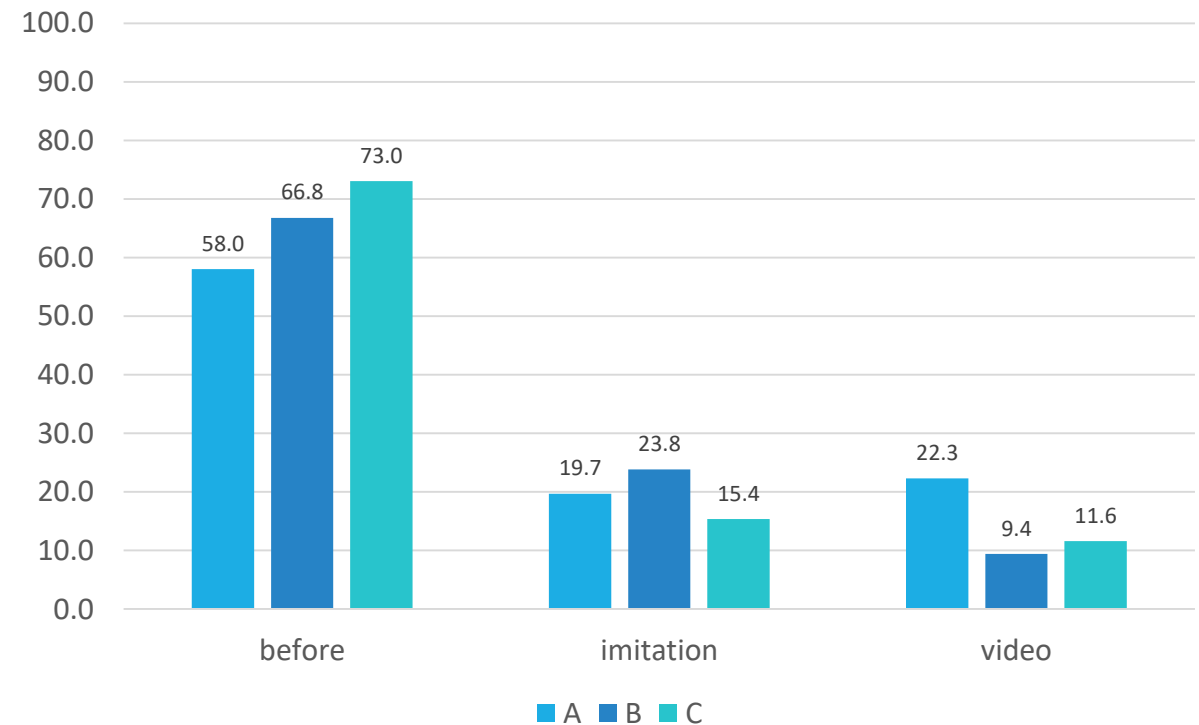
	sentmed1	sentmed2
R	7,9%	5,4%
U	18,7%	21,3%
	words1	words2
R	4,4%	2,8%
U	5,6%	7,2%
	sentfinal1	sentfinal2
R	11,3%	4,7%
U	2,1%	8,7%

Can progress be measured by the method used for the hardest exercise (final plosives)?

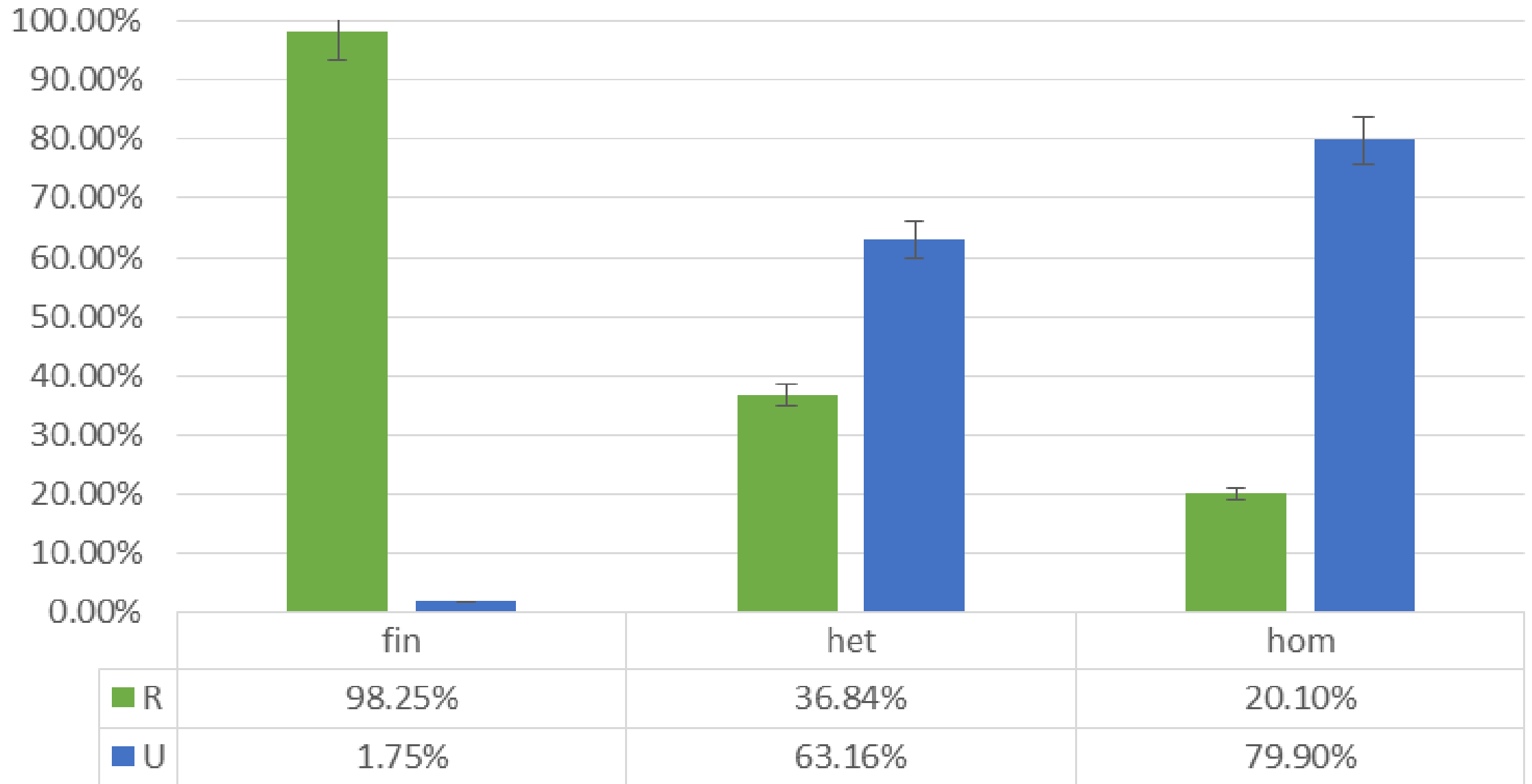
SENTENCE FINAL RELEASE: ALL GROUPS



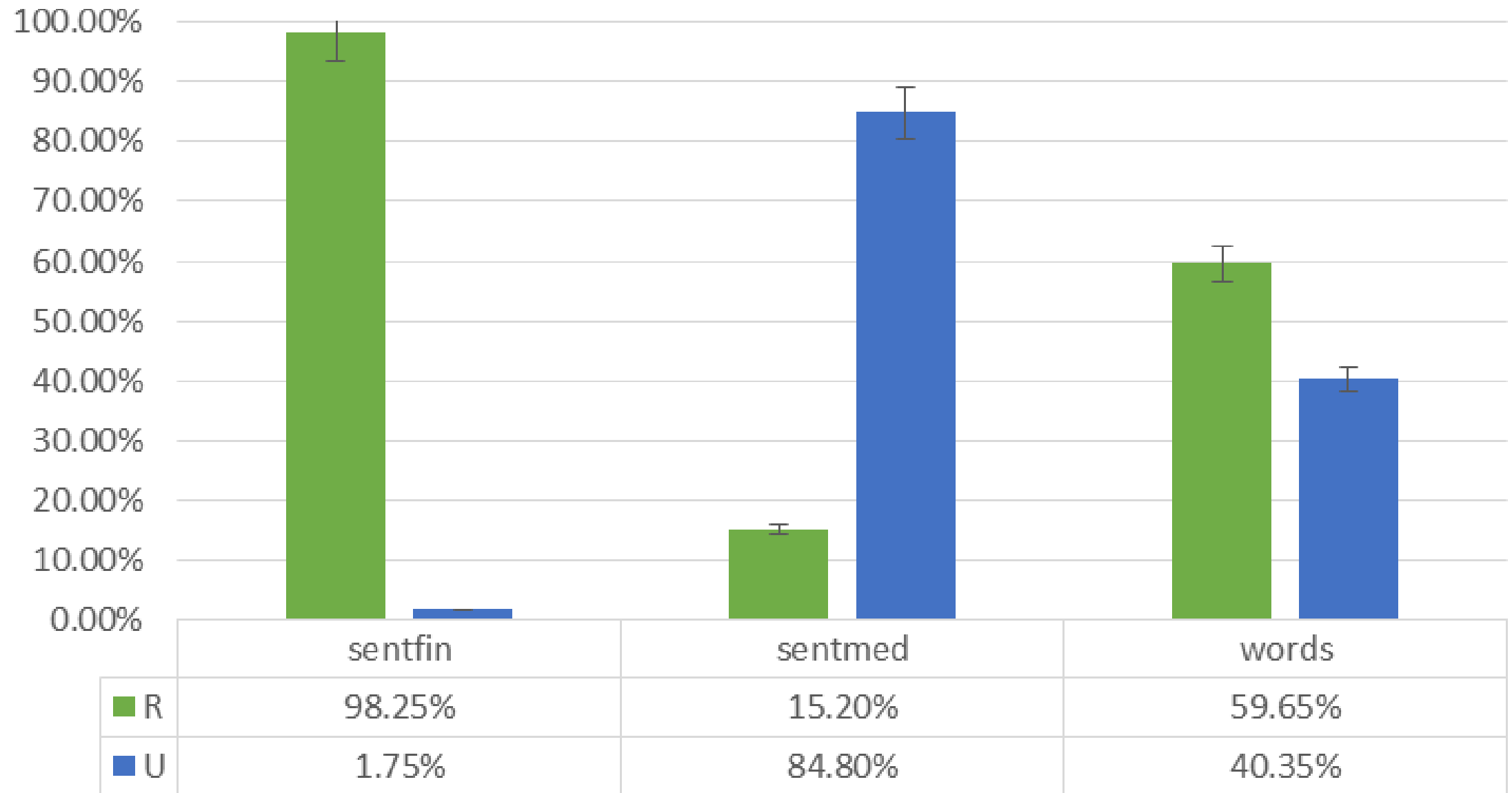
RELEASE BY LEVEL



FRENCH: proportion of release by environment



FRENCH: proportion of release by reading task

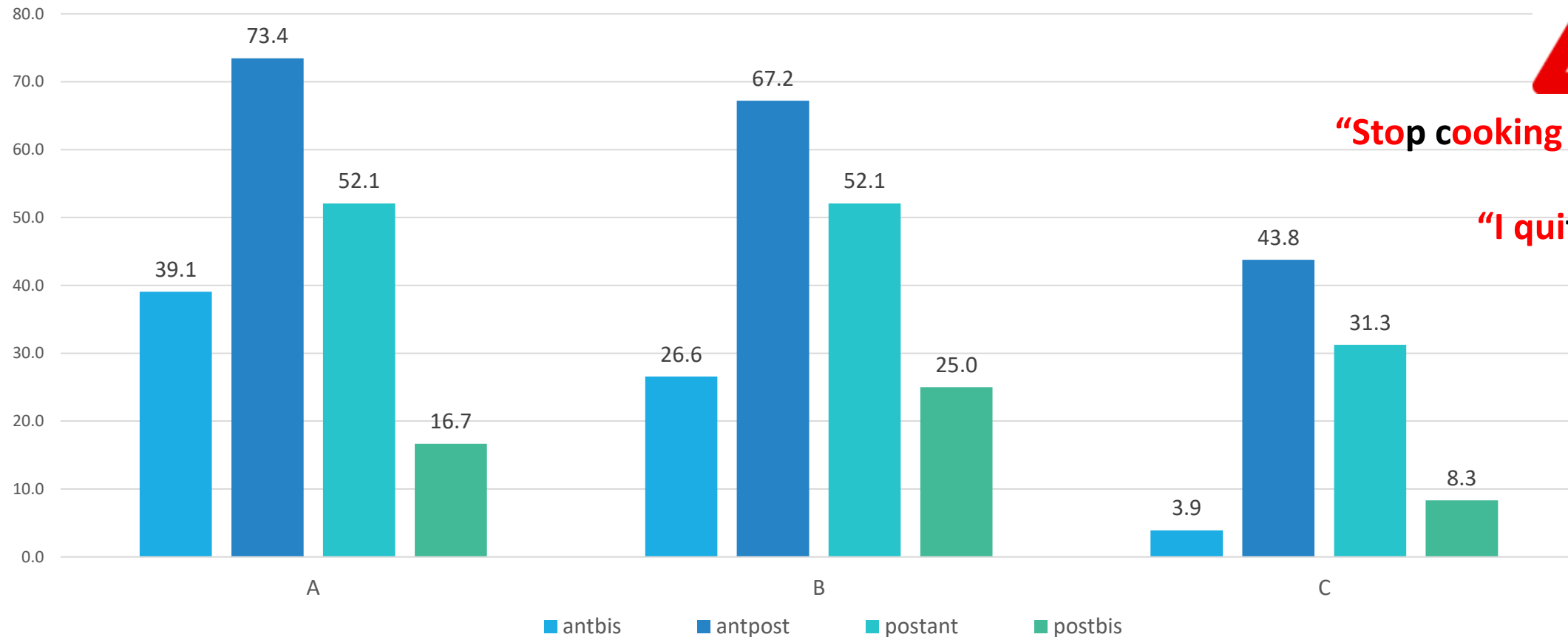


Which type of cluster is harder for students? (before)

72 tokens per pair
of plosives
284 productions
per group



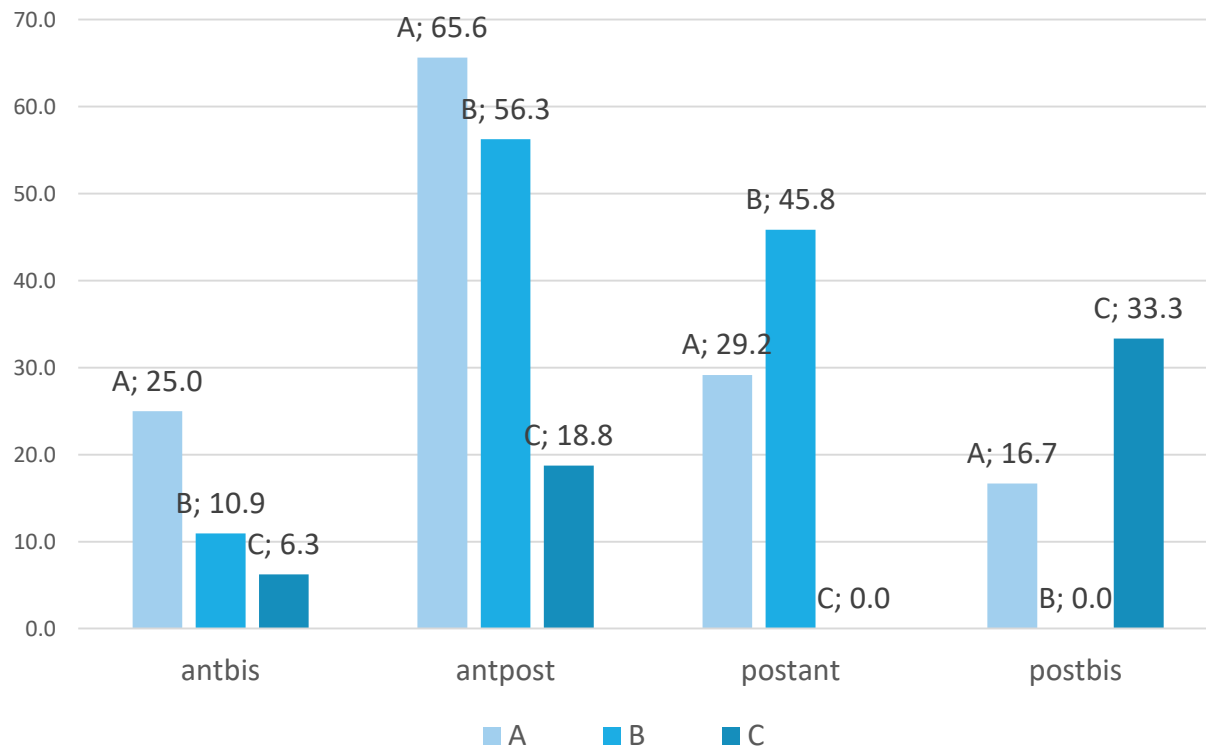
Tendency to release by type of pairs (percentage) before training



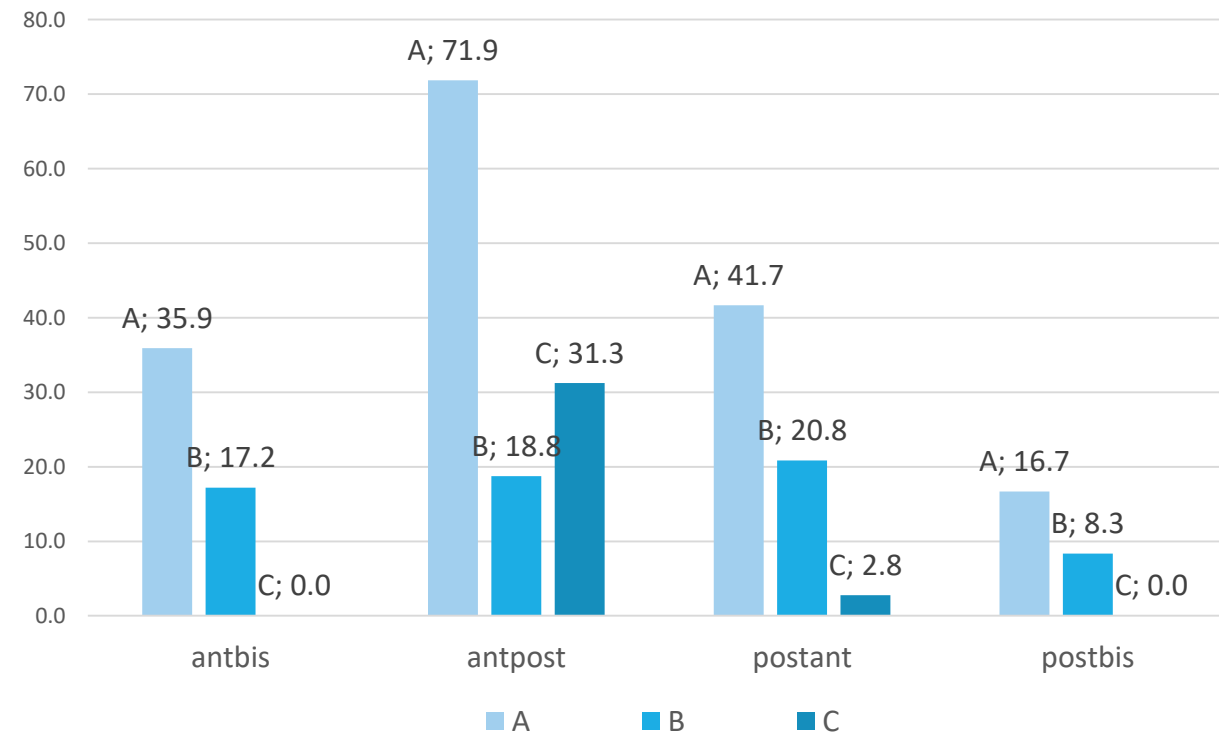
**“Stop cooking and listen to me”
&
“I quite like poker”**

Imitation vs. awareness and gesture (after)

PROPORTION OF BURSTS WITH IMITATION



PROPORTION OF BURSTS AFTER THE VIDEO



=> Level B and C show greater overall progress especially with the awareness and gesture method

Suggestions for further studies

- Add VOT & speech rate (*ongoing*)
- Check the influence of frequency on release
- Get a corpus of L1 speaking different varieties of English

- tap pan
- tha pan
- black pan
- tap tap
- that tap
- black tap



Which gesture was more helpful?

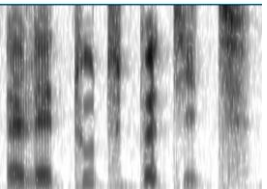


- tap pan
- that pan
- black pan
- tap tap
- that tap
- black tap

All levels: **1**

All levels: **3**

All levels: **2**



- + Fourth technique introduced : after the recording only as extra help
- + Use of spectrogram

Creating the tutorials

Tools:

headset microphone & a webcam

Screencastomatic

(15 min to prepare the video and 15 min to correct it)

The tutorial content:

Articulatory features explained

Who use it and where?

2 Gestures to help the learner

Sending the tutorial as an online course:



package a envoyer pour locuteur.zip



University platform OR Wetransfer.com

