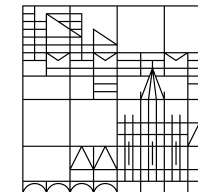




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Heritage Icelandic and North American English: Cross-linguistic influences in phonology

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What we are interested in ...

- the varieties of Icelandic spoken in Canada (Manitoba) and Iceland
 - Modern Icelandic (ModIce) vs. North American Icelandic (NAmlce)
- the way(s) in which languages are acquired in different contexts
- contact phenomena: (how) does English influence Icelandic and the other way around?

Why (Heritage) Icelandic ...

- I. Compared to its Scandinavian relatives, Icelandic is the most conservative language amongst their Scandinavian relatives with fewest changes in structure and lexicon compared with Old Norse (Haugen 1984; Henriksen & van der Auwera 1994; Thráinsson 1994).
- II. Many speakers of moribund North American Icelandic grew up speaking Icelandic with first generation immigrants, who took actions to preserve the Icelandic language (Arnbjörnsdóttir 2006).

Why (Heritage) Icelandic ...

- III. Icelandic varieties show minor dialectal differences (Thráinnsson 1994). The best-known differences are phonological in nature (Thráinnsson & Árnason 1992), but they "are so minimal, it has not been necessary to define a particular standard or 'received pronunciation'" (Thráinnsson 1994: 142). Variation in North American Icelandic is unlikely to be the result of original dialectal differences.
- IV. No continuous influx of immigrants after 1914 (Johannessen & Salmons 2015). This allows the assumption that moribund North American Icelandic can safely be traced back to the variety brought to North America by Icelandic immigrants between the 1870s and 1914 (see also Dehé 2018).

Previous research on (Heritage) Icelandic ...

- moribund NAmlce goes back to **Stefánsson** 1903
- 1970s Hallfreður Örn **Eiríksson**
- 1980s Gísli **Sigurðsson** in collaboration with Haraldur **Bessason** (see Arnbjörnsdóttir 2006).
- most recent data collection compiled by Höskuldur **Thráinnsson** and colleagues from the University of Iceland in 2013-2014
 - testing 126 participants with Icelandic background (e.g., Arnbjörnsdóttir et al. 2018).
 - purpose-designed linguistic tests mostly for the study of syntax and the lexicon and elicited written data.
- phonology focussing on vowels of NAmlce by **Arnbjörnsdóttir** (2006, 2015),
 - interviews recorded in 1986 with 50 Heritage speakers Manitoba (Canada) and North Dakota (USA)
- map task corpus in Iceland and in Manitoba in 2013-2014 by (**Dehé**, 2018)
 - intonation of polar questions in moribund NAmlce as compared to Modlce

Two phenomena ...

- differences between the two languages, allowing the study of acquisition and contact phenomena:
 - Preaspiration
 - Word stress

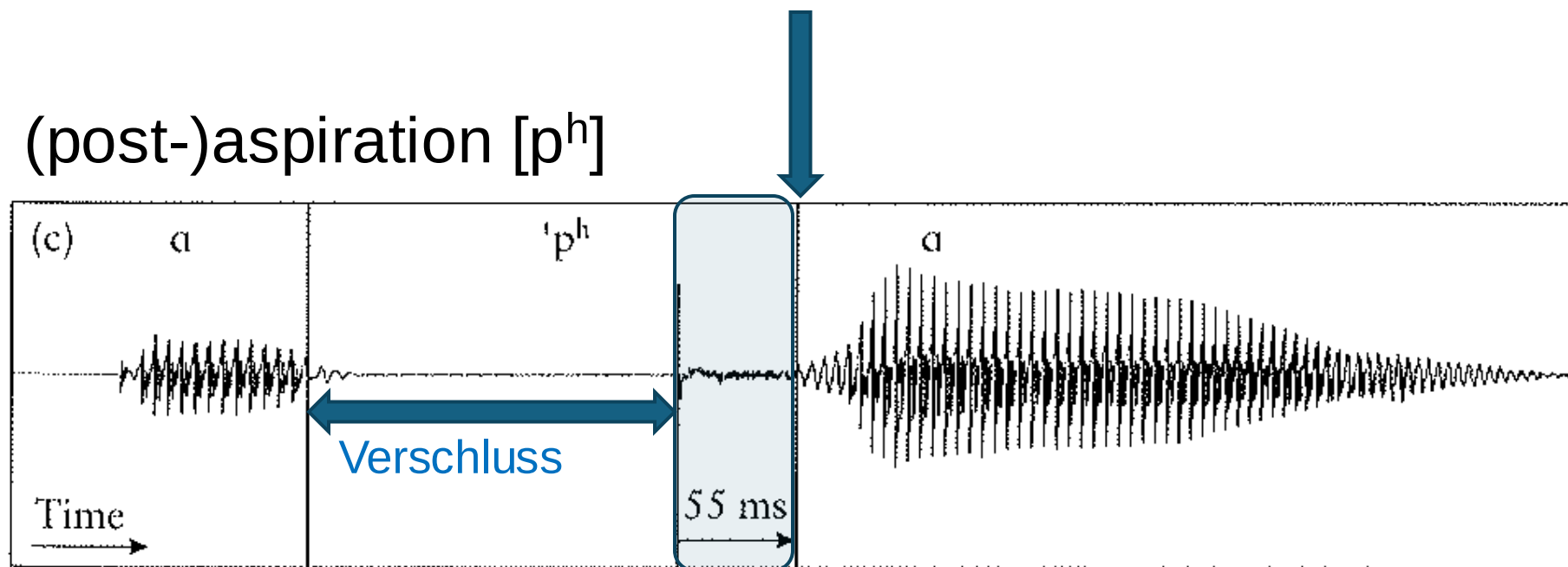
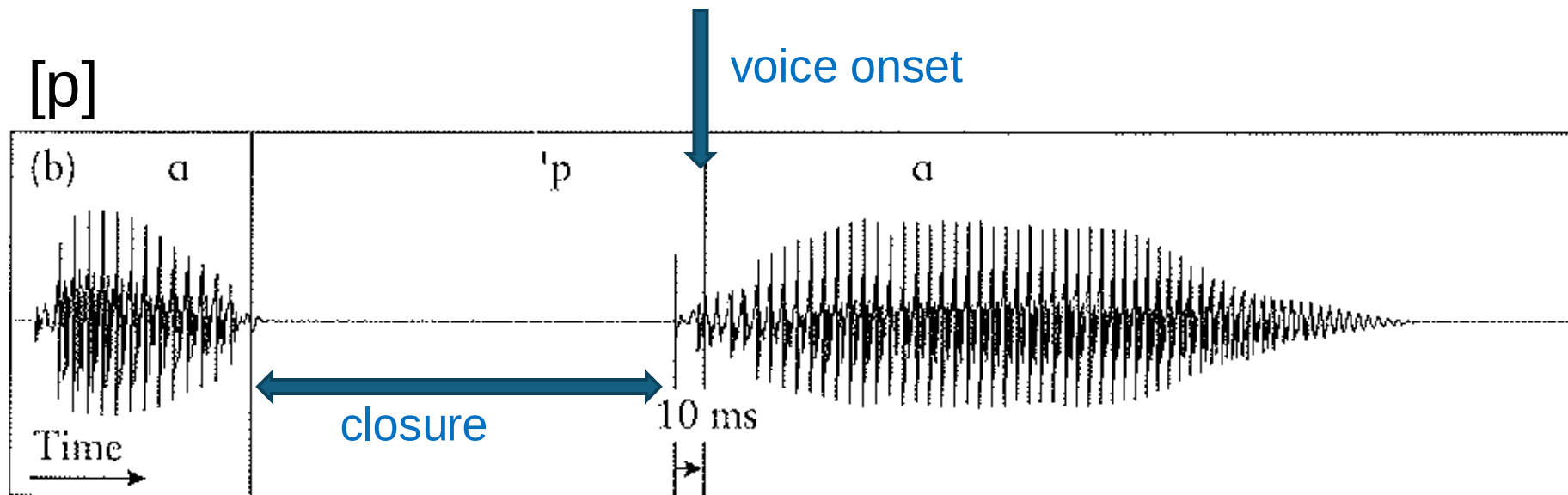
Two phenomena ...

1. Preaspiration (Aðblástur)

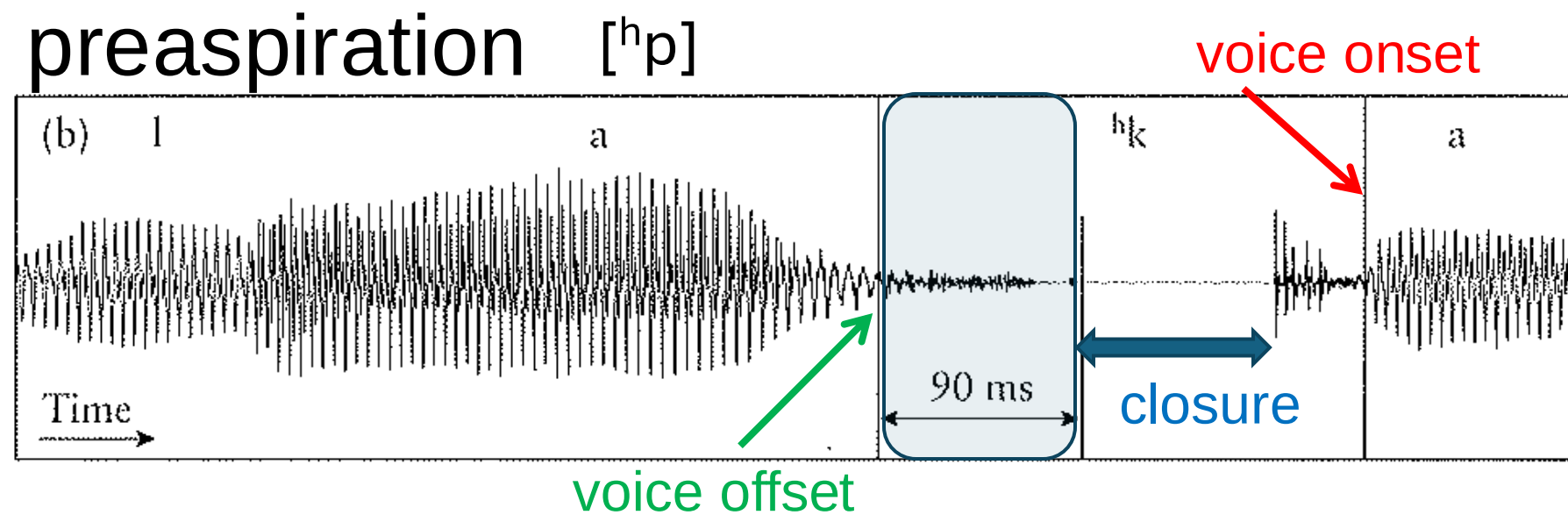
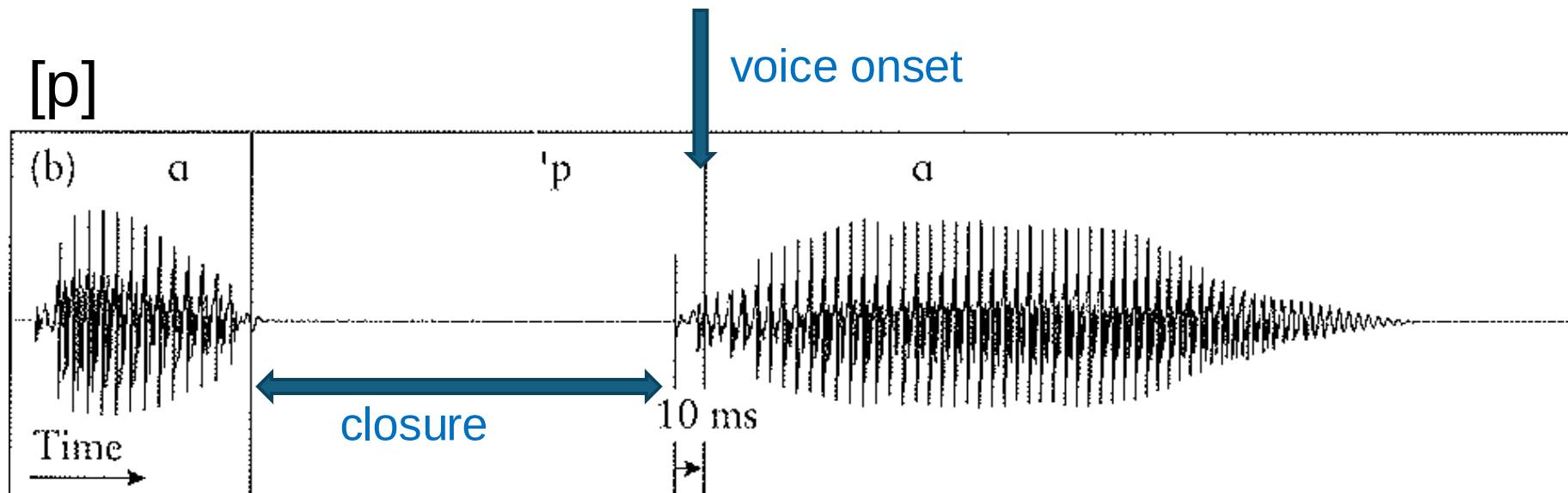


Icelandic: pottur (po**h**ttur)

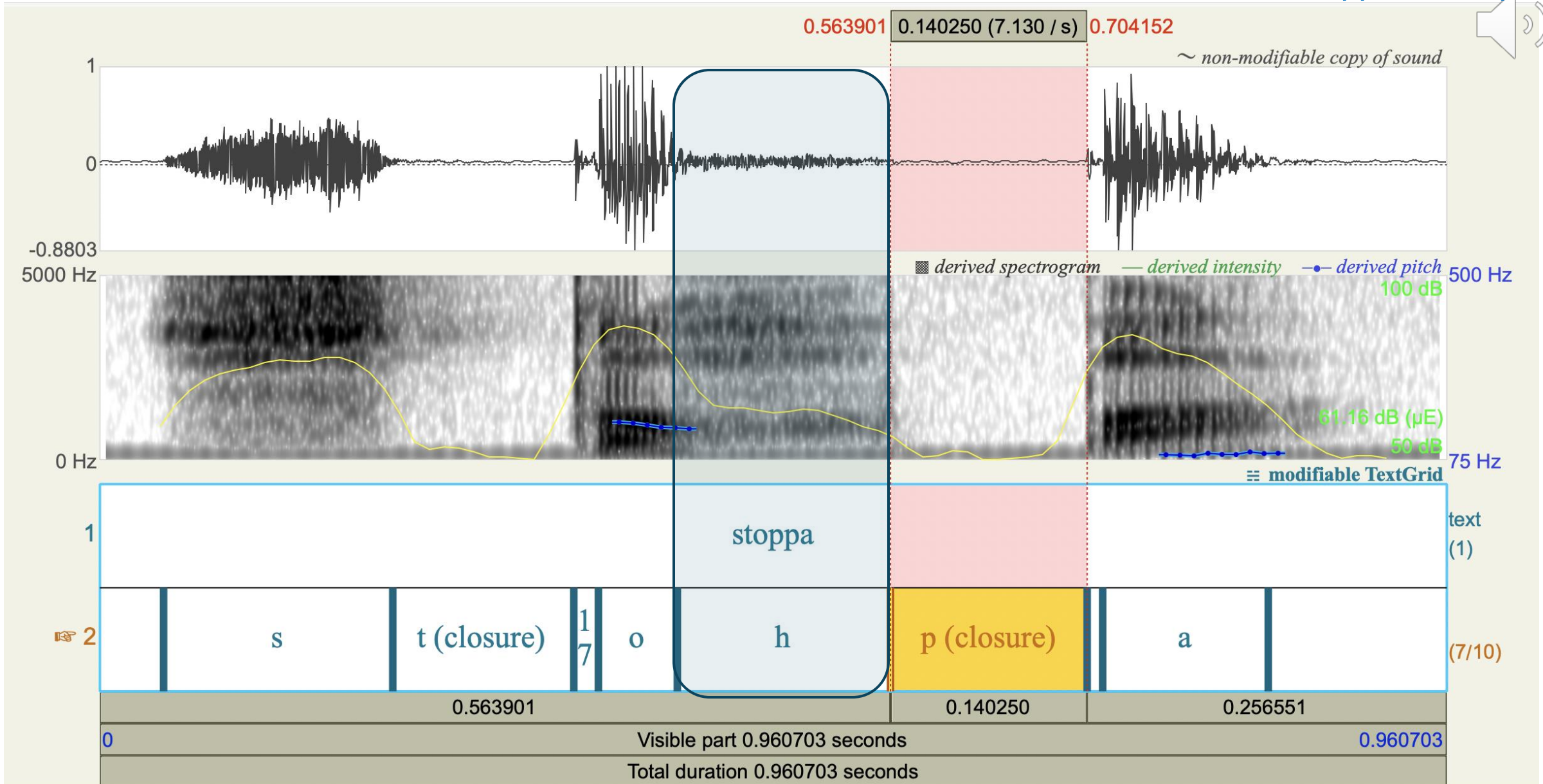
English: pot (pot)



VOT (voice onset time)



Icel. stoppa 'to stop'

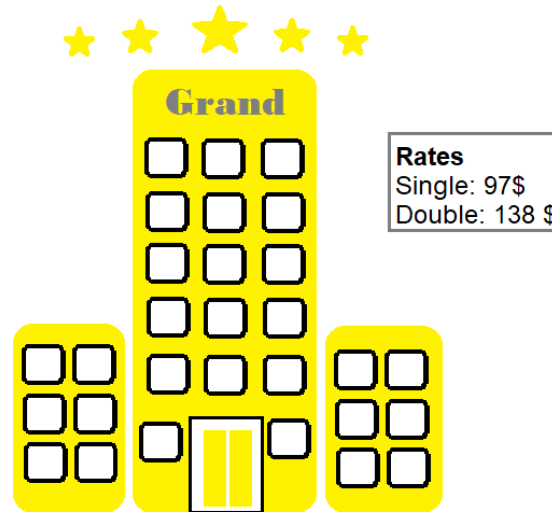


2. Word stress



English: prof**essor**

Icelandic: **pró**ffessor

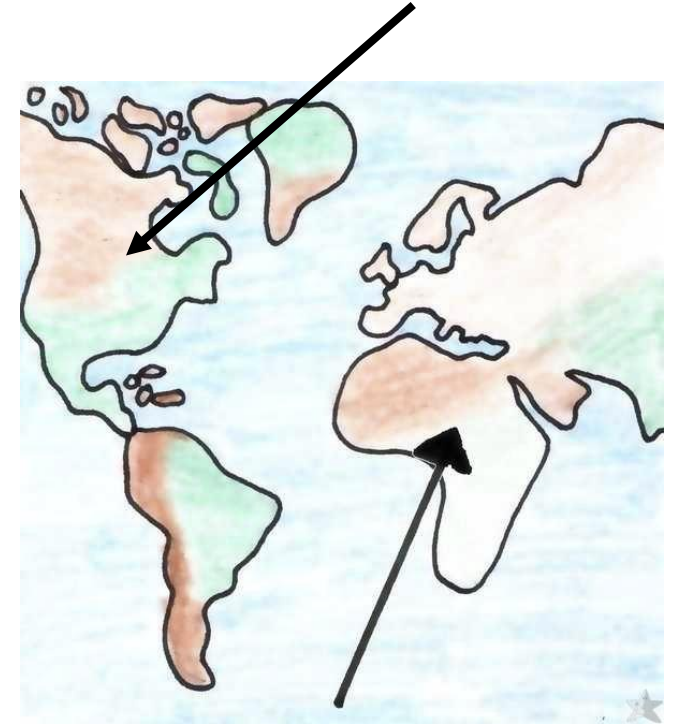


English: hot**el**

Icelandic: **hó**tel

English: **A**merica

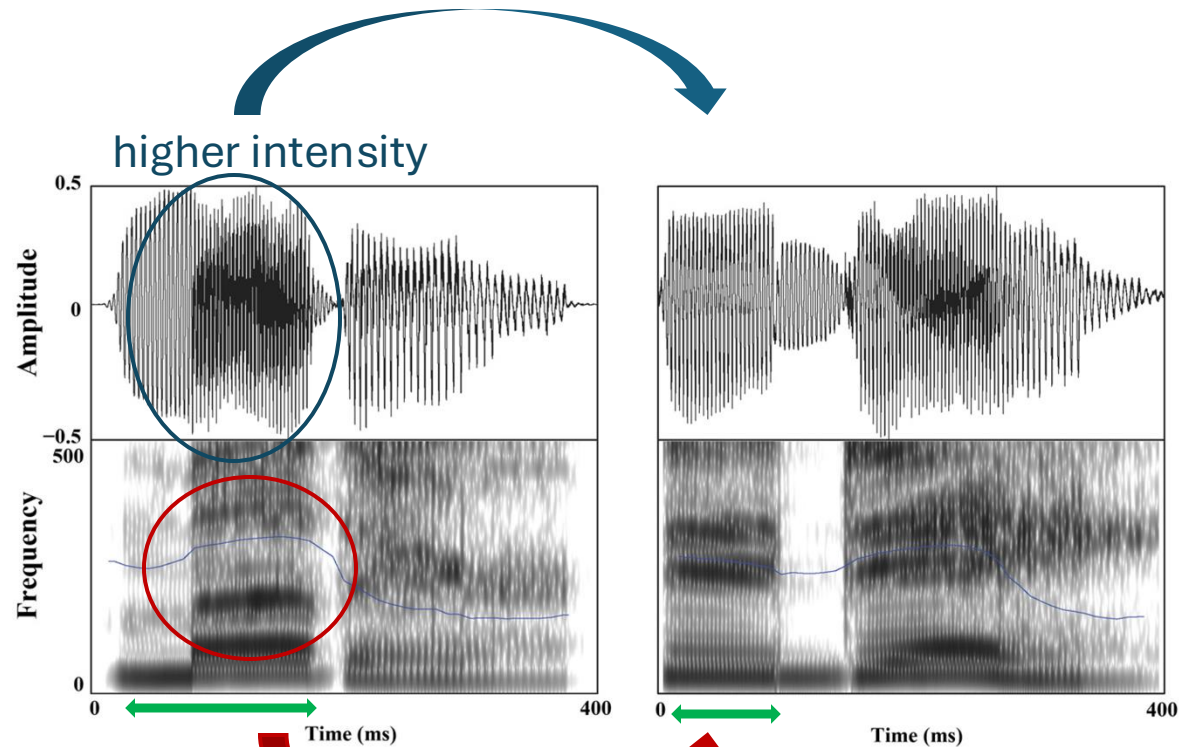
Icelandic: **A**meríka



English: **A**frica

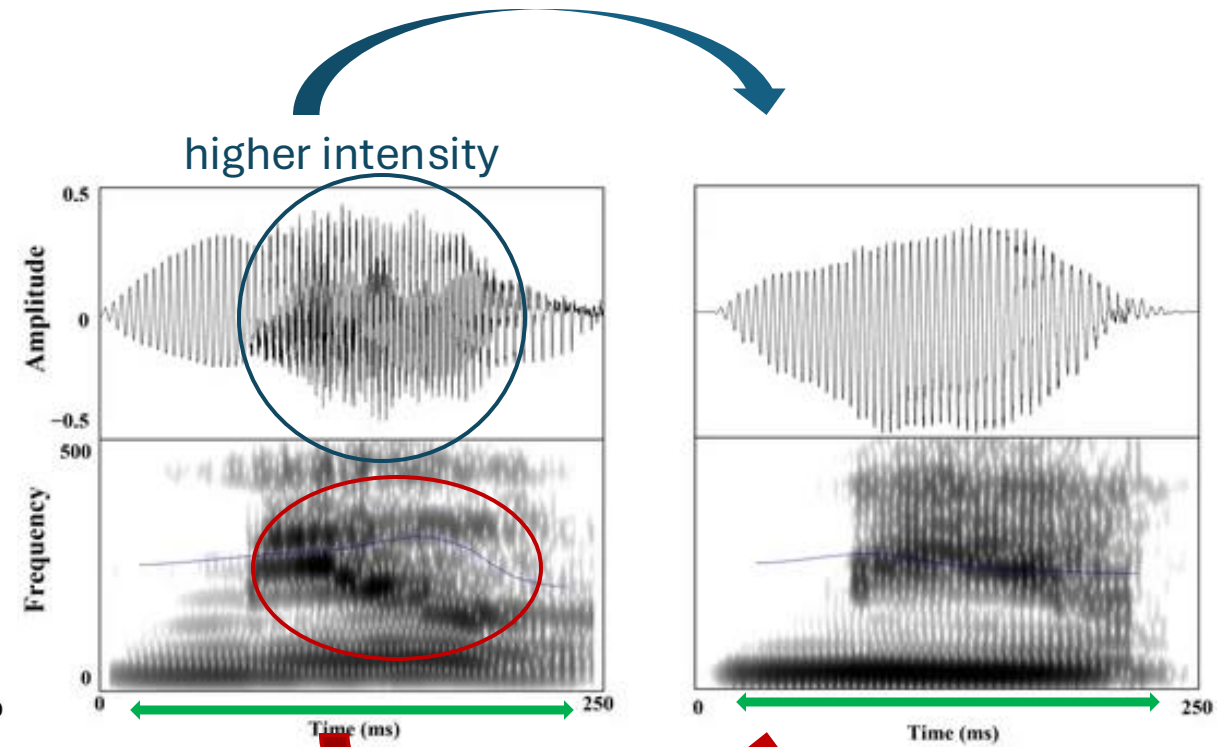
Icelandic: **A**fríka

Word stress



- higher (or lower) f0 max
- larger f0 movement

longer (or shorter) duration



- higher (or lower) f0 max
- larger f0 movement

longer (or shorter) duration

2 studies, 2 languages

1. Word elicitation task
(picture naming)

2. Story telling task (picture stories)



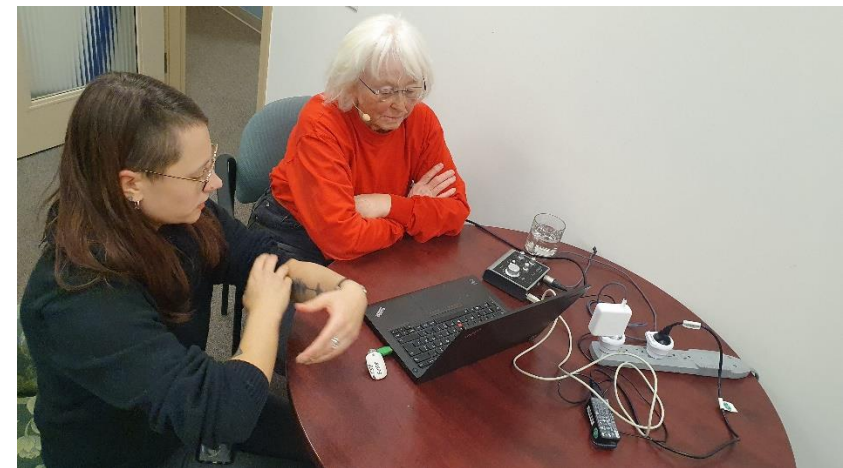
2 studies, 2 languages

1. Word elicitation task (picture naming)

Hvað er þetta? // What is this?
Þetta er pottur. // It's a pot.

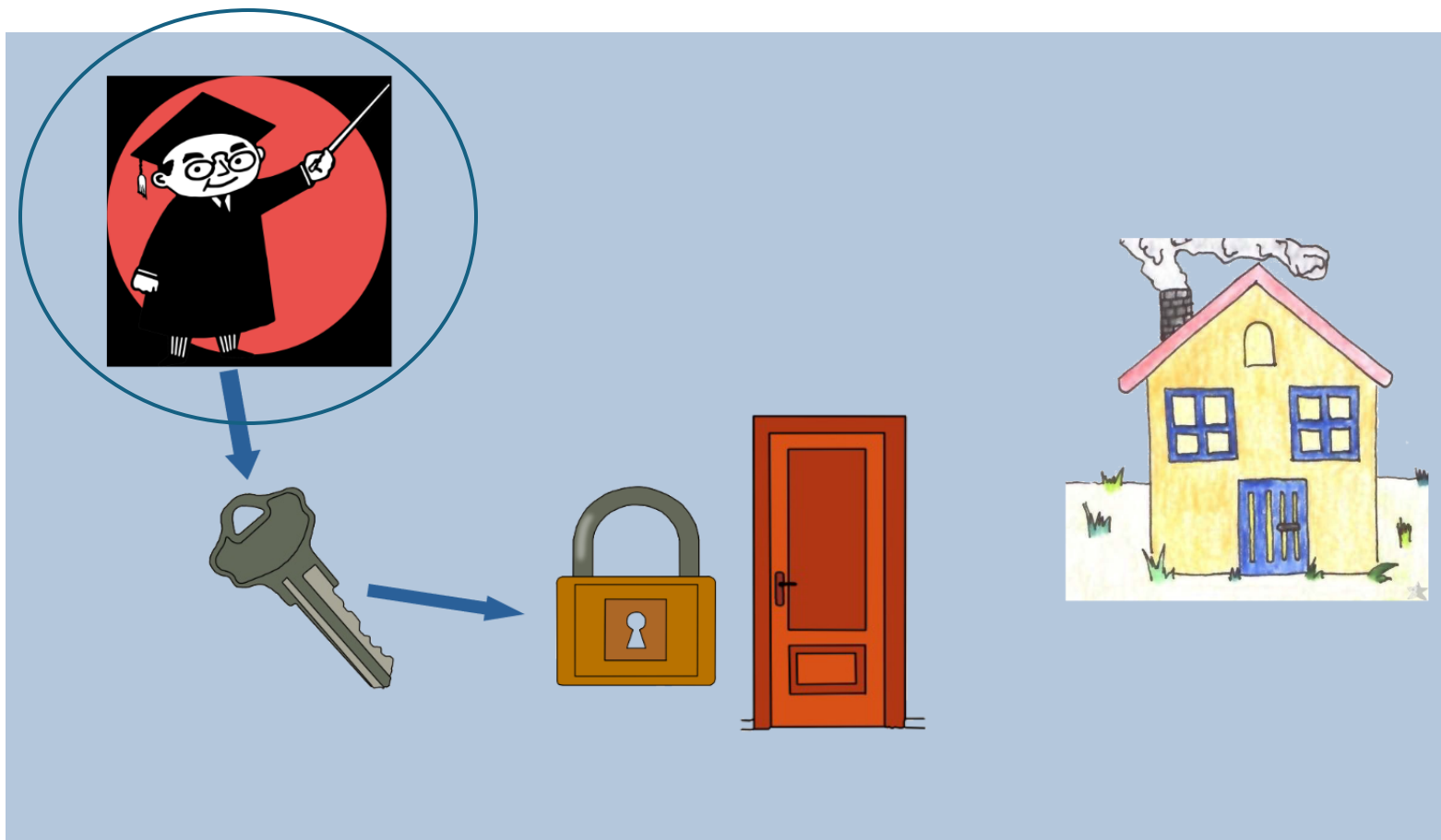


Hvað er hann að gera? // What is he doing?
Hann er að drekka. // He's drinking (water).



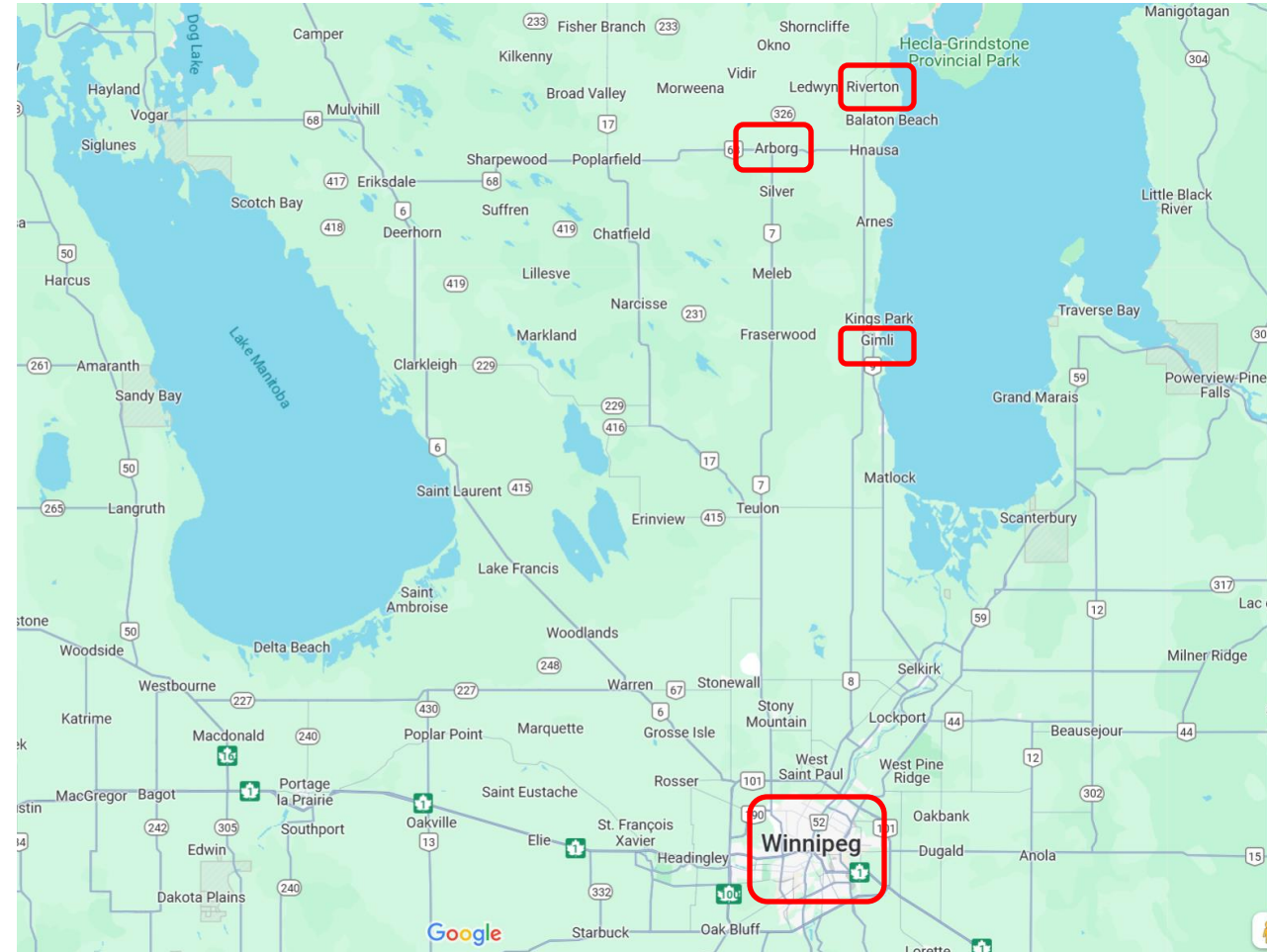
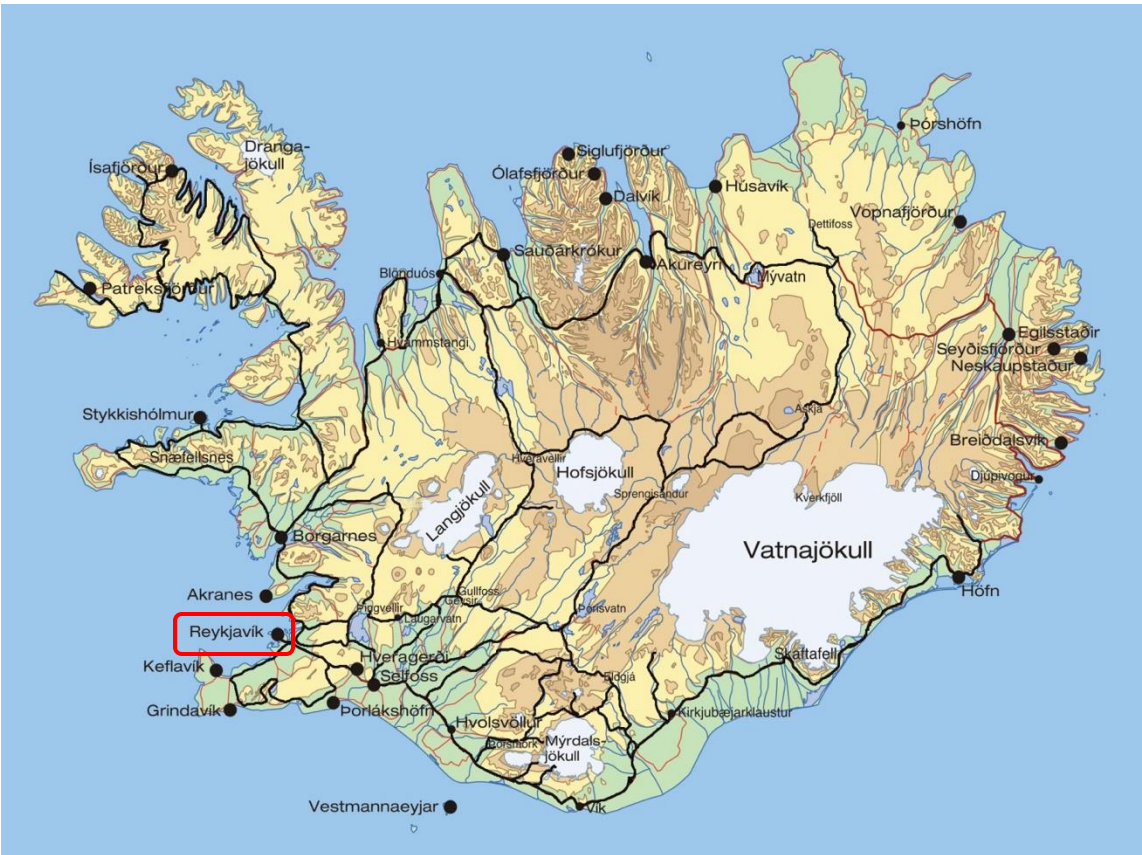
2 studies, 2 languages

2. Story telling task (picture stories)



Prófessorinn er að ... /
the professor ...

Where we are testing ...



Speaker groups

Gimli, Riverton, Arborg,
Winnipeg, MB:
Nov/Dec 2023/Mar2024

Iceland,
Summer 2023

Gimli, Riverton, Arborg, Winnipeg, MB:
March 2024

North American Icelandic

Moribund (70+)
(Manitoba)

Generation 1

Generation 2

Modern Icelandic

70+

20–50

North American English

70+

20–50

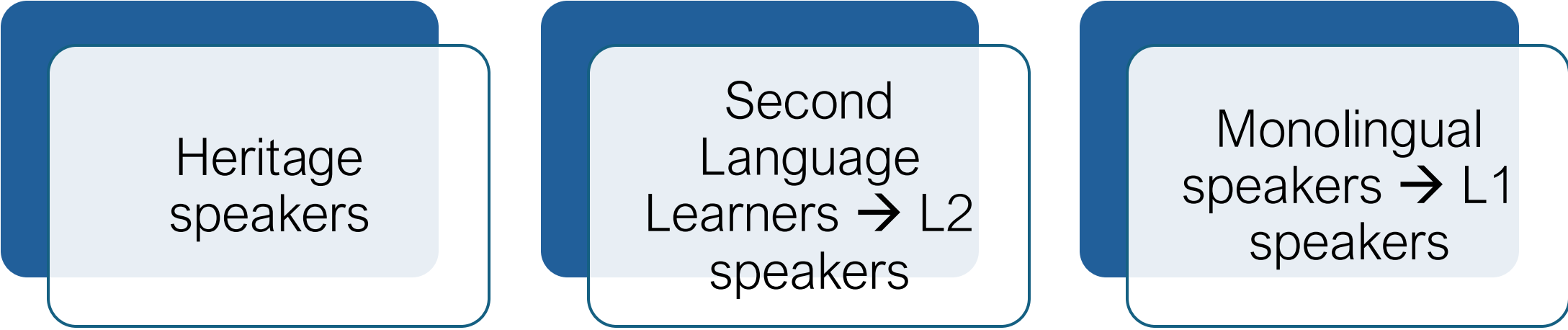
Icelandic as a second language

20–50
(L1: North
American
English)

Why so many different groups ...?

- Comparing different speaker populations:
- Languages change over the life span due to various influencing factors
 - age
 - language use
 - language contact
 - region
 - Interlocutors
 - ...

Why so many different groups ...?



Heritage
speakers

Second
Language
Learners → L2
speakers

Monolingual
speakers → L1
speakers

L1 speakers	L2 speakers
Abundant input in a naturalistic setting (aural input)	Varying amount of input in instructed and/or naturalistic setting (aural and written input).
Control of features of language acquired very early in life (phonology, some vocabulary, some linguistic structures)	Grammar may be incomplete (no chance to develop other structures and vocabulary)
Developmental errors	Developmental and transfer errors.
Outcome is successful and complete.	Outcome is variable proficiency. It is typically incomplete
Fossilization does not occur	Fossilization is typical
No clear role for motivation and affective factors	Motivation and affective factors play a role in language development

Heritage speakers

L1 speakers	L2 speakers
Abundant input in a naturalistic setting (aural input)	Varying amount of input in instructed and/or naturalistic setting (aural and written input).
Control of features of language acquired very early in life (phonology, some vocabulary, some linguistic structures)	Grammar may be incomplete (no chance to develop other structures and vocabulary)
Developmental errors	Developmental and transfer errors
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No clear role for motivation and affective factors	Motivation and affective factors play a role in language development

How many speakers?

63 speakers
(27, 10, 26)

North American
Icelandic

Moribund (70+)
(Manitoba)

Generation 1

Generation 2

21 speakers
(21, 20)

Modern Icelandic

70+

20–50

17 speakers
(7, 10)

North American
English

70+

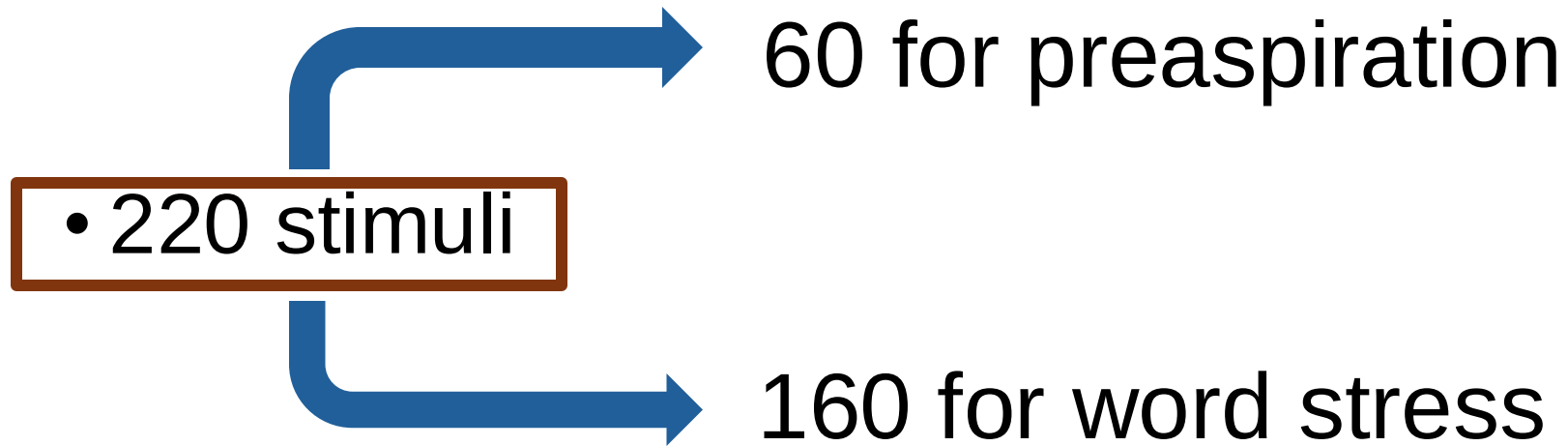
20–50

12 speakers

Icelandic as a
second language

20–50
(L1: North
American
English)

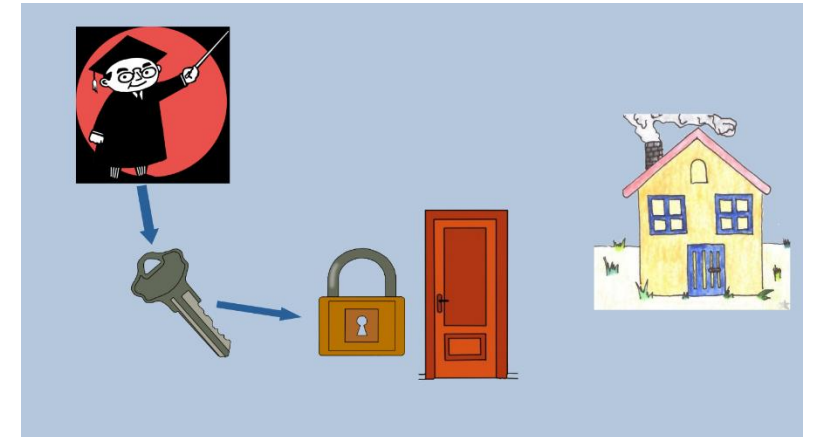
How many items?



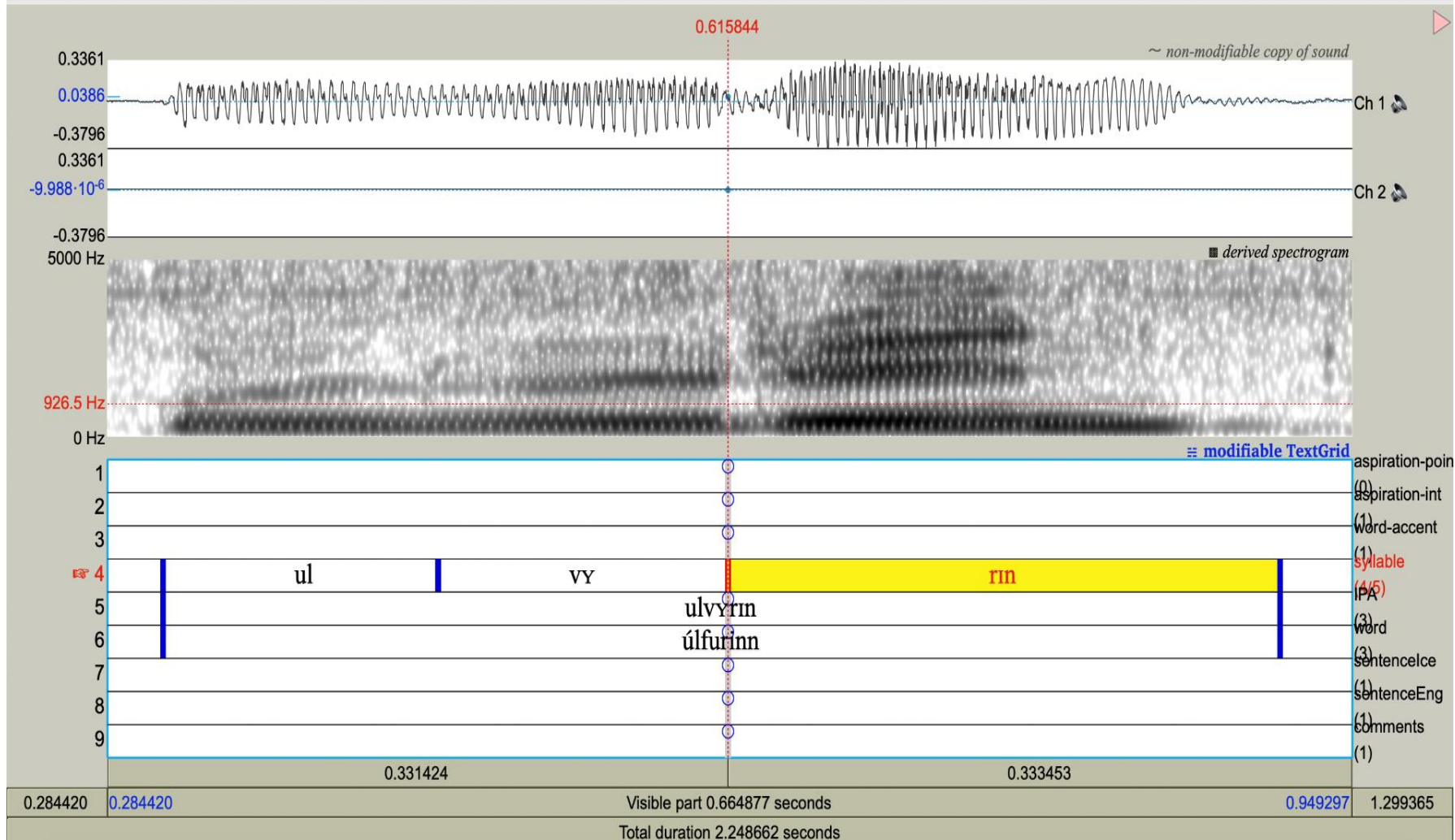
Analysis

We are analyzing:

- Data from the **picture naming task**:
 - **Already more than 24 000 Words**
(115+ participants x 220)
- Data from the **picture story task**:
 - **More than 2500 words** (anticipated)



Analysis



Preaspiration in Modern Icelandic

– Three-way opposition (from Árnason 2011: 222)

a. hattar ['haht̪ar] 'hats'

b. haddar ['hat̪ar] 'hair, hairdo (Pl.)'

c. hatar ['ha:t̪ar] 'hates'

Preaspiration, logical possibilities of syllabification

- a. Vh.CV hattar ['hah.tar]
- b. VhC.V hattar ['haht.ar]
- c. V.hCV hattar ['ha.htar]
- d. VhC.CV hattar ['haht.tar]

Preaspiration, logical possibilities of syllabification

a. Vh.CV hattar ['hah.tar]

- is compatible with the observation that preaspiration (not: V) is lengthened under stress (Árnason 2011), suggesting segmental phonemic status, occupying one C position on the timing tier (Thráinsson 1978; Ringen 1999; Hansson 2005).
- satisfies the onset maximization (OnMax) and sonority sequencing principles (SSP).
- problematic (Árnason 2011: Ch. 2) because /h/ is not otherwise allowed in coda position and creates some not legitimate onsets outside of preaspiration contexts (e.g., *epli* vs. *opna*: /pl/ is, but /pn/ is not a legitimate onset otherwise)

Preaspiration, logical possibilities of syllabification

b. VhC.V hattar ['haht.ar]

- violates OnMax as well as SSG.

Preaspiration, logical possibilities of syllabification

c. V.hCV hattar ['ha.htar]

- structure of the first syllable is phonotactically constrained → rhymes of initial (stressed) syllables must structurally be V: or VC not V
- onset cluster of the second syllable violates SSP
- if [hC] is considered an allophone of C, the onset of the second syllable is illegitimate, because preaspiration does not occur in initial position

Preaspiration, logical possibilities of syllabification

d. VhC.CV hattar ['haht.tar]

- corresponds to the assumption that preaspirated C is an allophone of C and ambisyllabic
- like c, this results in a preaspirated onset of the second syllable, violating phonotactic constraints

Preaspiration, 5 Hypotheses

- H1:
 - (The context of) preaspiration is retained in NAmlce, but its realization differs from preaspiration in Modlce.

- H2:
 - In production, the deviance between Modlce and NAmlce follows one of the strategies observed for related phenomena in HLs previously investigated. Possible are two opposing strategies: over-emphasized realization and good enough such as post-aspiration, vowel lengthening (Polinsky 2018)
 - Given the differences in input and usage pattern, the realization of preaspiration differs in terms of timing and articulatory effort between the three NAmlce groups.

- H3:
 - Native speakers of Modlce will be able to perceive these realization differences, which, however, do not mask the phonological contrast.

Preaspiration, 5 Hypotheses

– H4:

- NAmIce speakers speaking English will produce preaspiration (or respective compensation), thus their English will differ from the NAmEngl control group.

– H5:

- Given the perceptual salience of preaspiration, Ice-L2 speakers develop a mental representation of the phonological contrast, but given its articulatory difficulties, there will be variation in the phonetic implementation.

Word stress, 3 Hypotheses

– H1:

- Given that word stress in Icelandic may not be phonologically represented, we hypothesize word stress in NAmlce to be deviant from word stress in Modlce in both position and phonetic realization.

– H2:

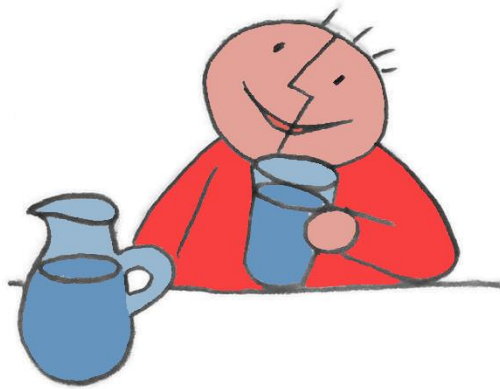
- For the same reason as in H1, we hypothesize to find no differences between NAmlce-mor and NAmlce-gen1 groups in either their NAmlce or their NAmEngl productions. We hypothesize to find differences between those two NAmlce groups on the one hand and NAmlce-gen2 on the other due to the timing of the onset of acquisition of English: only speakers of NAmlce-gen2 are confronted with competing stress systems simultaneously.

– H3:

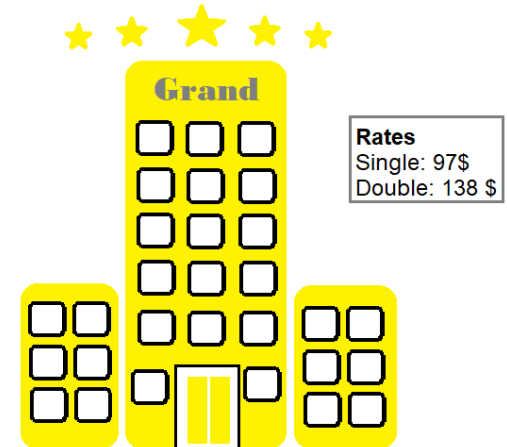
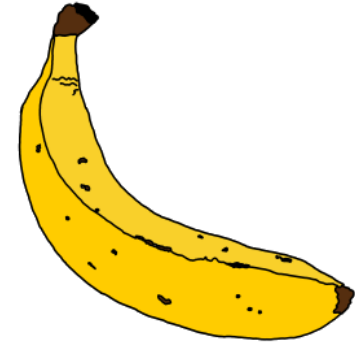
- For the same reason as in H2, we will also find differences between Ice-L2 compared to NAmlce-mor and NAmlce-gen1.

Examples

- Preaspiration



- Word stress



X _

X _ _

X _

X _ _



KAffi
HAMborgari



Coffee
HAMburger



X _
X _ _

_ X
_ X _



gítar
BAnani



gui**TAR**
ba**NA**na



BAnani



baNAna



baNAni



baNAna



What do we gain from that?

What is part of the system?



What has to be learned?



Is the Icelandic
initial word stress
pattern part of the
linguistic system?



Can the flexible rule-
based American word
stress pattern push
away the Icelandic
pattern?



**Thank you !!!
Takk fyrir !!!**

**Elva Simundsson and Julianna Roberts
in Gimli**

**Star Johnson in Arborg
Keith Eliasson in Riverton
Katrin Nielsdottir in Winnipeg**

And all our wonderful participants!



Preaspiration

Icelandic list, example trials (V = vowel)

	Question	Target response	condition
a.	Hvað sérðu á myndinni?	(Ég sé) bakka. ('I see a tray.')	short V, preaspiration; cf. (2)a
b.	Hvað sérðu á myndinni?	(Ég sé) bagga. ('I see a haybale.')	short V, no preaspiration; cf. (2)b
c.	Hvað er hún að gera?	(Hún er að) baka. ('She is baking.')	long V, no preaspiration; cf. (2)c

English list, example trials (V = vowel)

	Question	Target response	condition
a.	What do you see?	I see a package.	short V, voiceless plosive
b.	What is this?	(It's) baggage.	short V, voiced plosive
c.	What is she doing?	She is baking.	long V

Word stress

testing secondary stress; Icelandic and English materials

	Question	Target response Icelandic	condition	Target response English	English equivalent
a.	Hvað er þetta? What is this?	(Þetta er) hamborgari.	'σ σ , σ σ	(It's a) hamburger.	'σ σ σ
b.	Hvað er þetta? What is this?	(Þetta er) banani.	'σ σ , σ	(It's a) banana.	σ 'σ σ

Word stress

testing secondary stress; Icelandic and English materials

	Question	Target Icelandic	response condition	Target English	response condition
a1.	Hvað er þetta? What is this?	(Þetta er) leigubíll. (It's a) taxi.	'σ σ + ,σ (lex)	(This is) mango juice.	'σ σ + ,σ
a2.	Hvað sérðu á myndinni?	(Ég sé) kartöflur. (I see) potatoes.	'σ σ + ,σ (infl)	n/a	n/a
b1.	Hvað sérðu á myndinni? What is this?	(Ég sé) bakarar. (I see) bakers.	'σ + σ ,σ (infl)	(This is) a ski hotel.	'σ + σ ,σ
b2.	What is this?	n/a	n/a	(It's a) newspaper.	'σ + ,σ σ
c1.	Hvað er þetta? What is this?	(Þetta er) ostakaka. ('It's cheese cake.')	'σ σ + ,σ σ (lex)	(I see a) motorcyclist.	'σ σ + ,σ σ
c2.	Hver er að baka? (*Who is baking?)	bakararnir	'σ σ + ,σ σ (infl)	n/a	n/a
d.	Hvað sérðu á myndinni? What is this?	(Ég sé) kartöfluflögur. (I see) potato chips.	'σ σ σ + ,σ σ (lex)	(It's a) theatre ticket.	'σ σ σ + ,σ σ