# Short Vowels and Young Speakers in the Anglophone World

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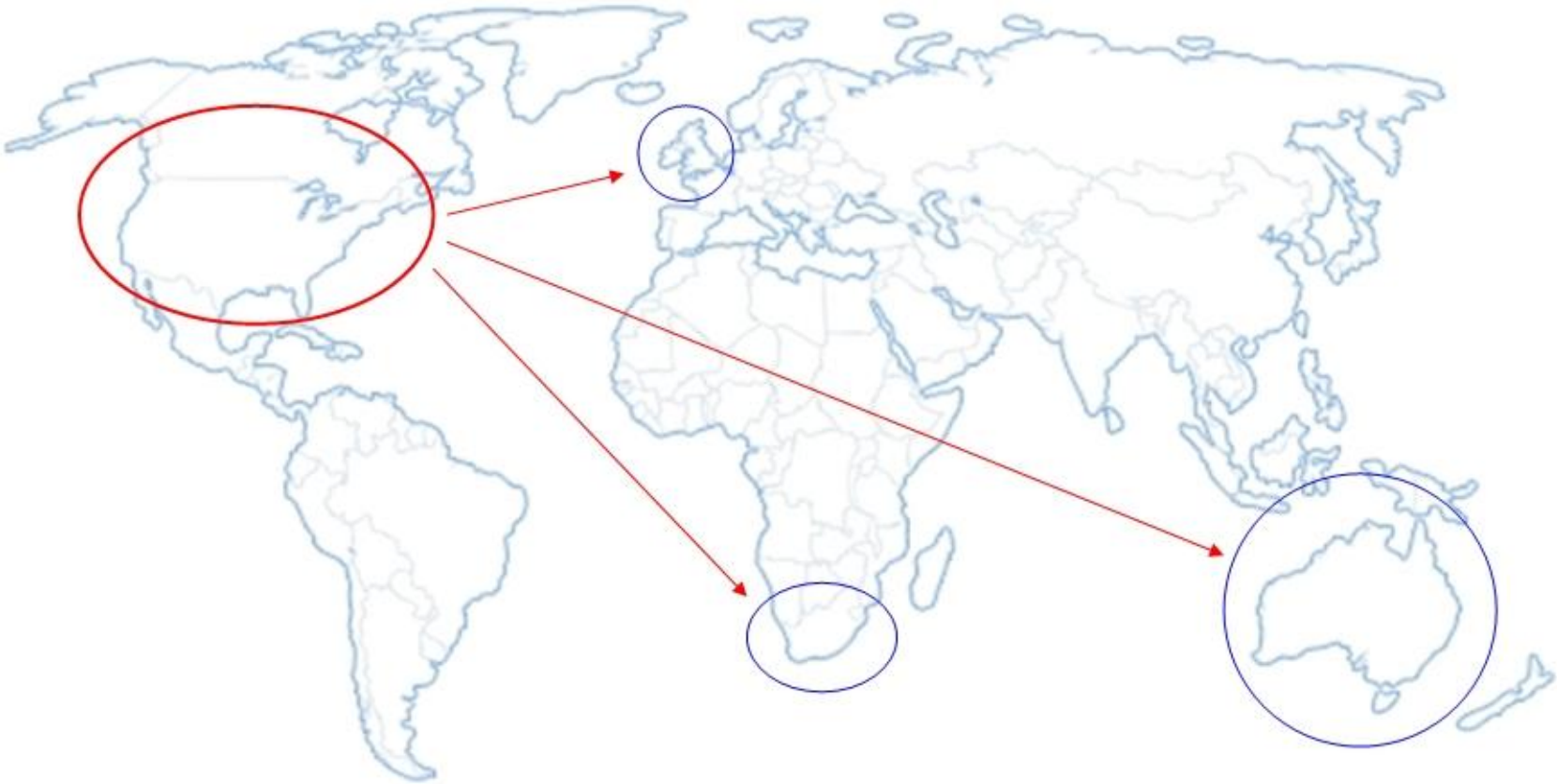
# Introduction

The issue to be discussed today is a widespread shift in the pronunciation of vowels across the English-speaking world. It involves the lowering of short front vowels which in its present form would seem to be a fairly recent phenomenon. The shift has been described for California and Canada by various scholars. It would also seem to be spreading to the Southern Hemisphere (at least to South Africa and Australia).

The shift in vowel pronunciation has also affected English in Ireland and during this presentation I will play some examples and discuss its linguistic significance of the shift.

# Spread of Short Front Vowel Lowering



Two young female speakers from Dublin:

1) Recorded in 2011, no short vowel lowering

001_Dublin_Dalkey_(female)_no_SFVL_(2011).mp3

2) Recorded in 2014, with short vowel lowering

002_Dublin_Blackrock_(female)_with_SFVL_(2014).mp3

# How and what we say

Most of the time when we speak we think not of how to say something (e.g. pronounce the words) but rather of what we want to say (the meaning of utterances).

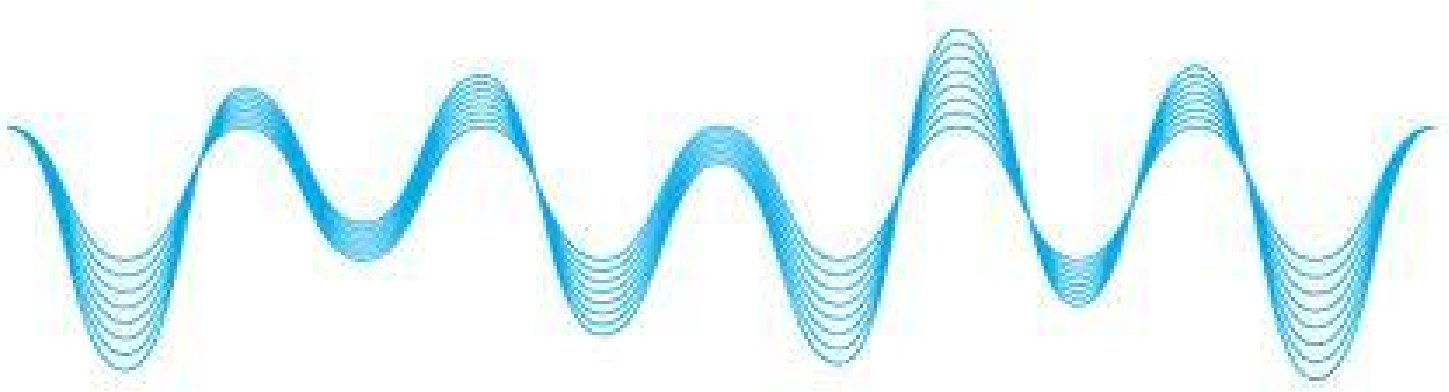
# What we can understand

Within our native language we have an extraordinary ability to grasp what is being said to us or around us. We can understand men and women, children and adults, speakers of our own variety of language and those of different dialects.

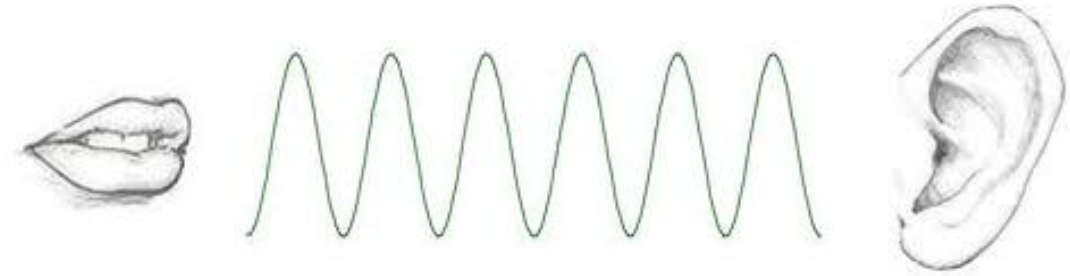
We can furthermore adjust for tone of voice and rate of delivery, all of this in real time while effortlessly following the meaning of what is being said.

# What we do with what we hear:

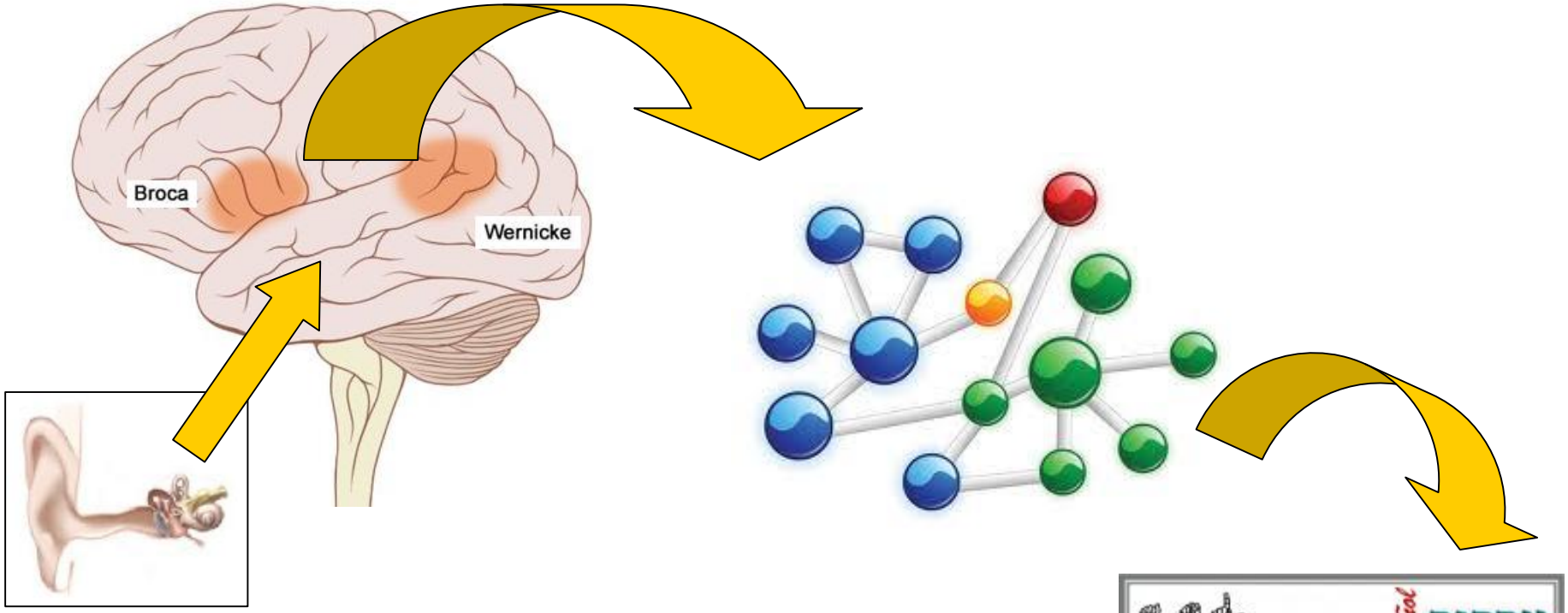
## The phonetic stream and mental phonological representations



Infants and young children are exposed to a continuous phonetic stream and must make sense of this by working out the systemic structure which underlines this stream of sounds.



# The basis for phonology

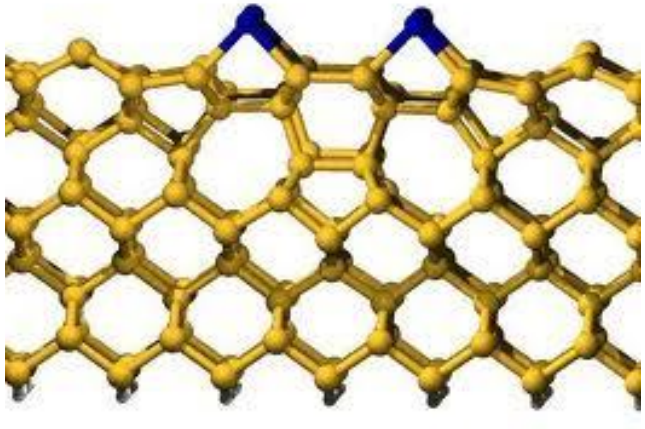



The mental representation of sounds as phonological units is the basis for all languages. These building blocks (phonemes) are the elements from which to construct units (words).

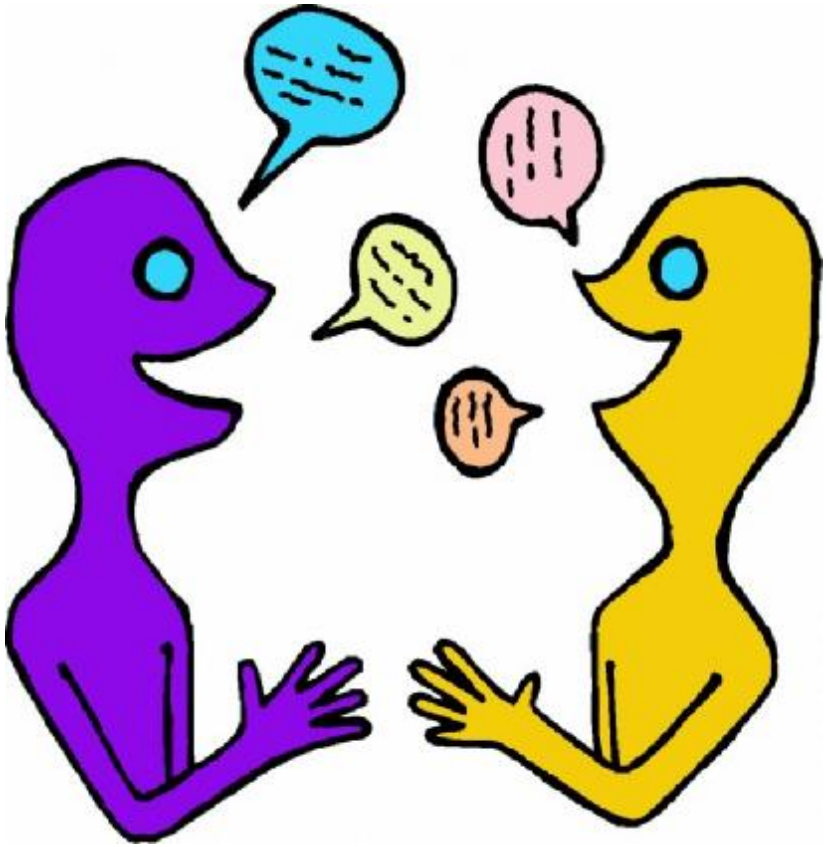
# The basis for phonology

Phonological knowledge is generated by children by segmenting the phonetic stream they hear around them, then abstracting the segments they recognise and assigning these to systemic units on a mental level.

This allows children to create new sentences with the sounds which others recognise as part of their native language.



# When speaking we make unconscious decisions about how to pronounce sounds



We can alter our pronunciation in order to (i) accommodate to others or (ii) to dissociate from others

Accommodation

Dissociation

# The study of language: It’s all about change

# Motivation for language

Language change can basically be assigned to one of two types:

1) The change is caused by structural realignments through reanalysis, mostly during first language acquisition — this is *internally motivated change*.

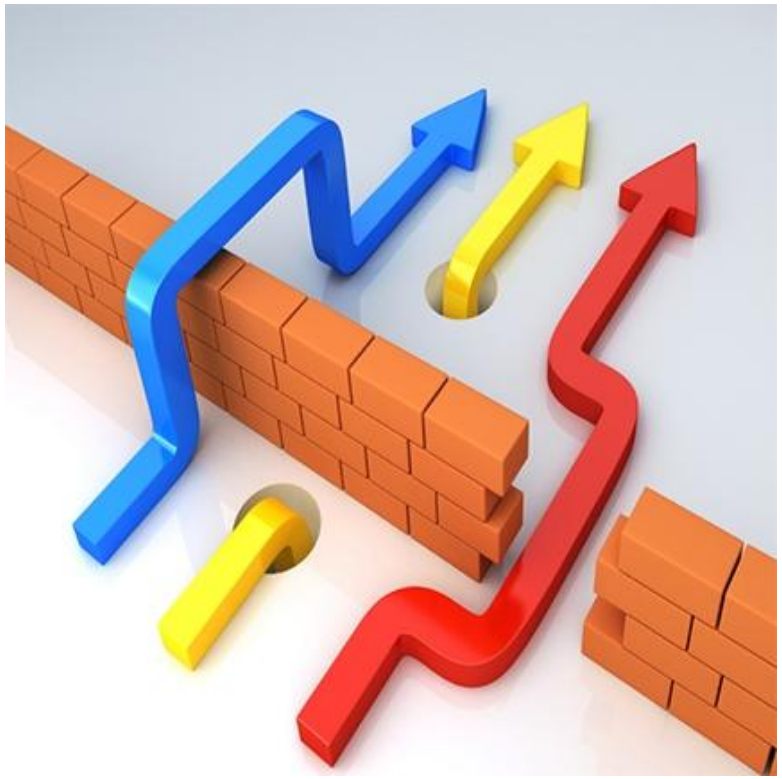
2) The change results from the linguistic behaviour of teenage and adult speakers in their community, — this is *externally motivated change*.

# Motivation for language

1) Young children start by making maximally general assumptions about the language they are acquiring and refine their picture of it as they get older. If they reanalyse some of the input during acquisition they this leads to regularity, hence reanalysis is symmetry-enhancing.

2) Teenagers and young adults may introduce very slight variations into their speech which, seen cumulatively, can lead to shifts in the system, hence variation is symmetry-breaking.

# What are the pathways of language change?

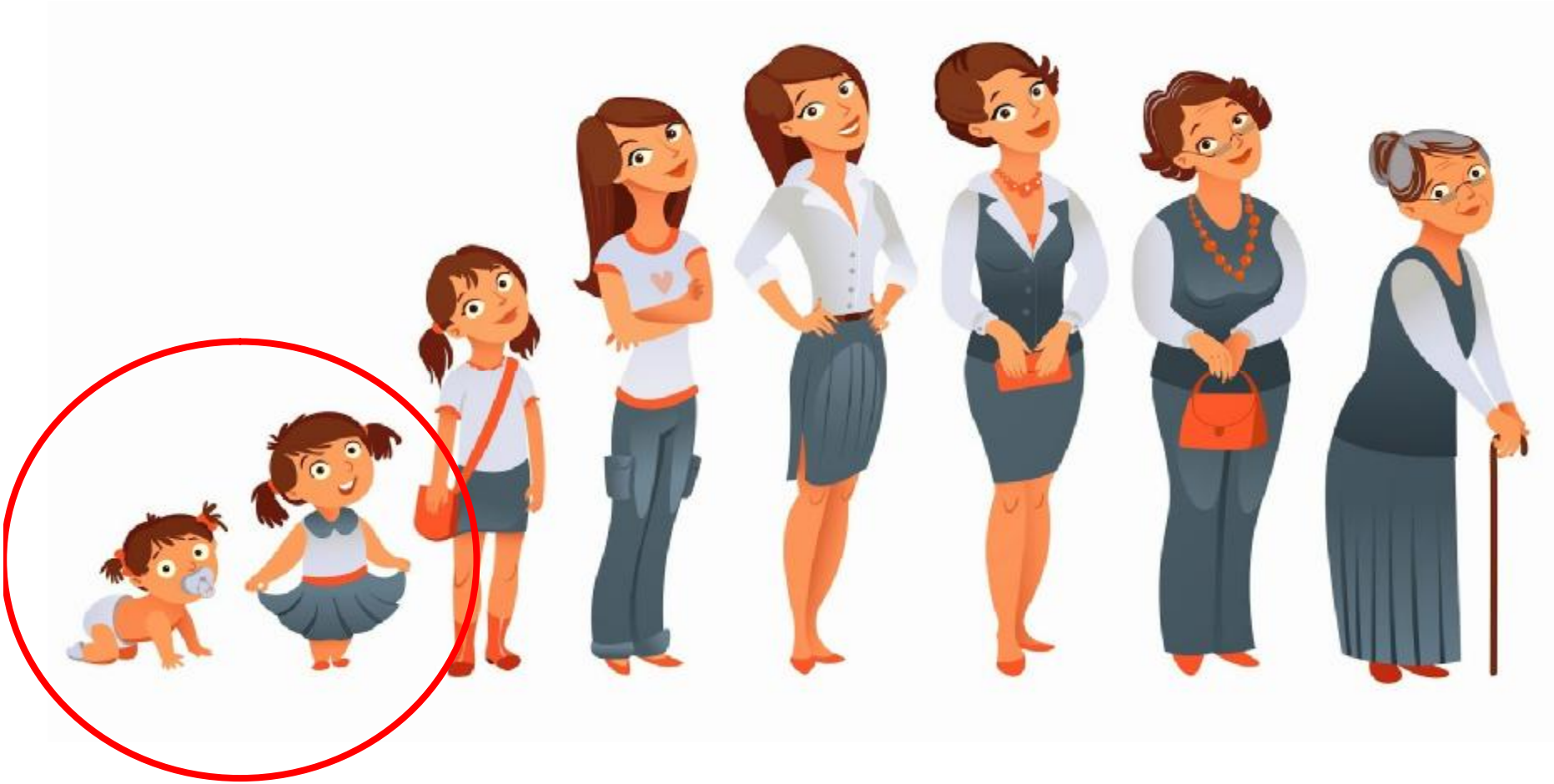


# How is language change transmitted?

# By face to face contact between speakers

# Stages of life: which are linguistically significant?

# Early childhood for internally motivated change



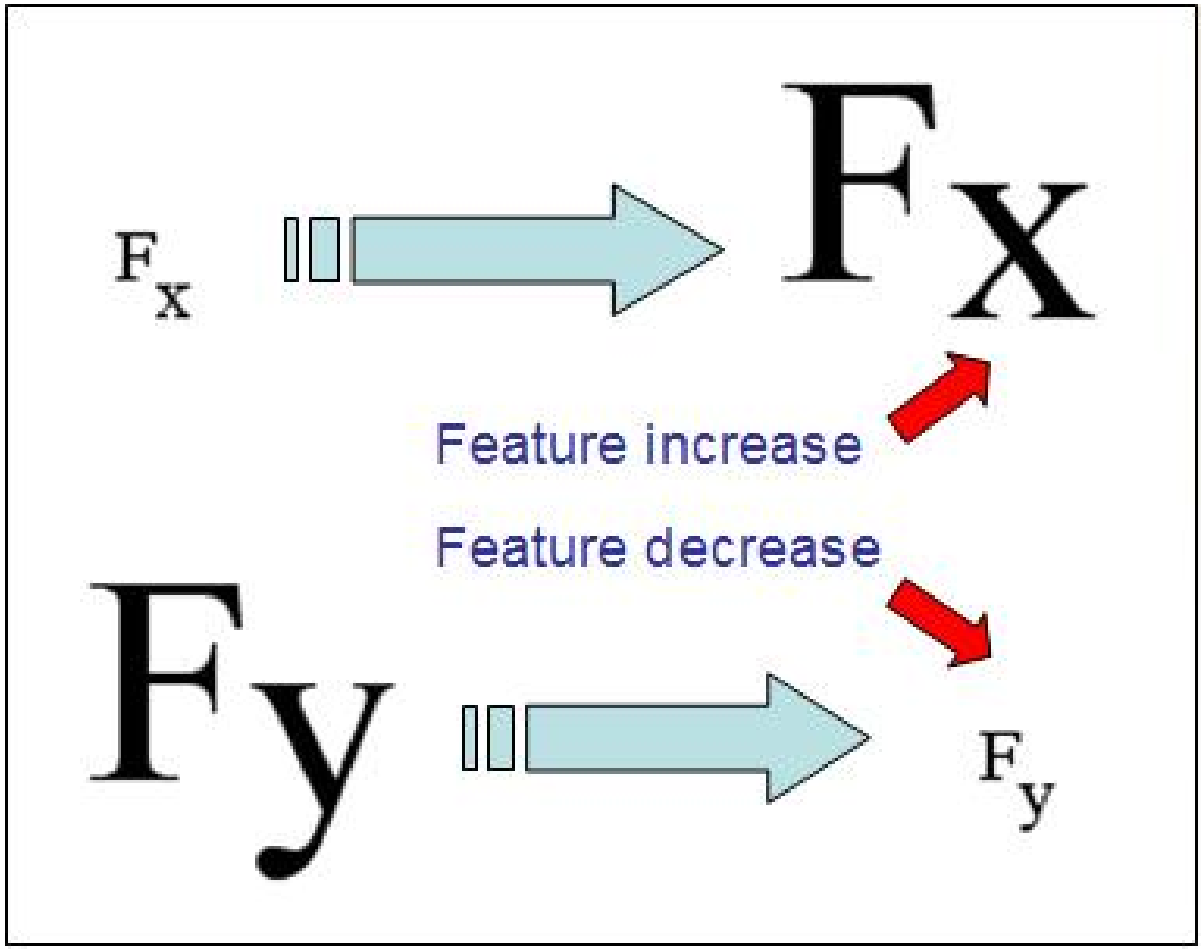
# Late teens, early adulthood for externally motivated change

# Handling variation across time

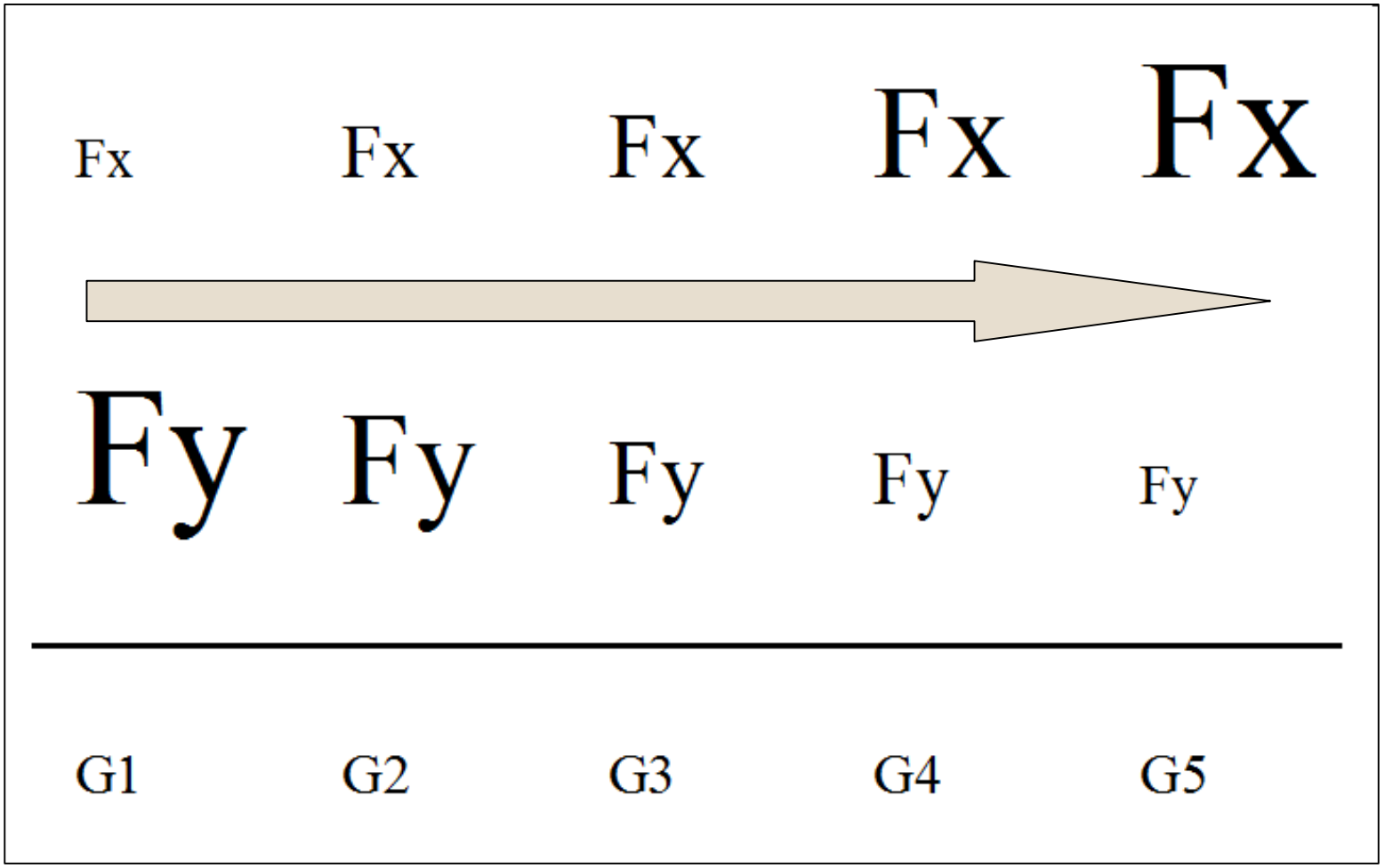
No language is static so there will always be variation in the phonetic stream young children are exposed to. At the very least children will hear speech around them in which some features may be on the increase and some may be on the decrease. This applies to all levels of language, not just phonology.

A graphic representation of this situation might look something like the following.

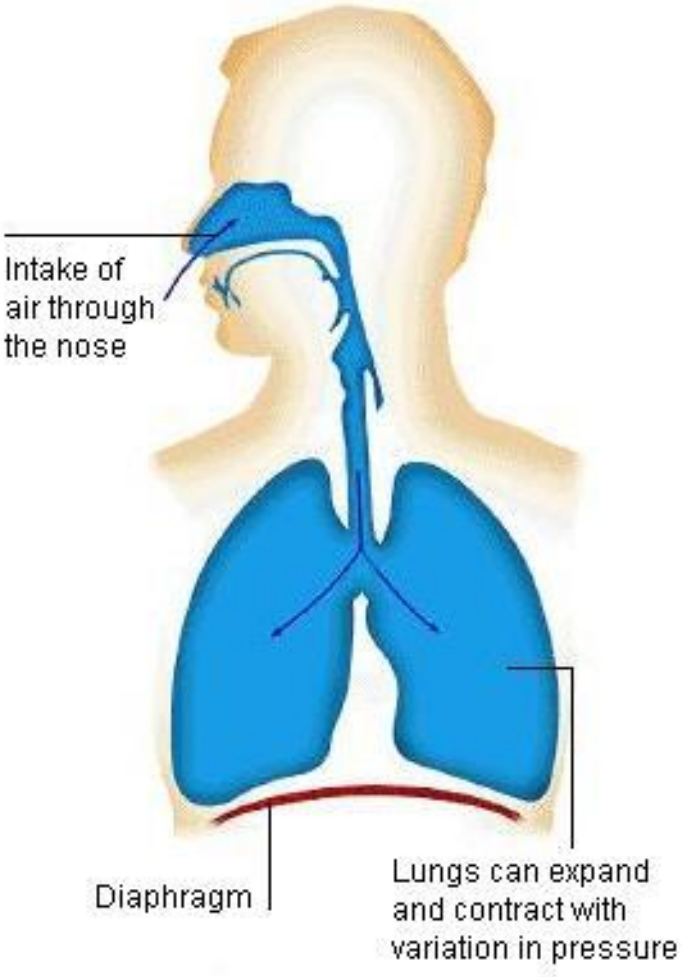
# Handling variation across time: increase and decrease can be related

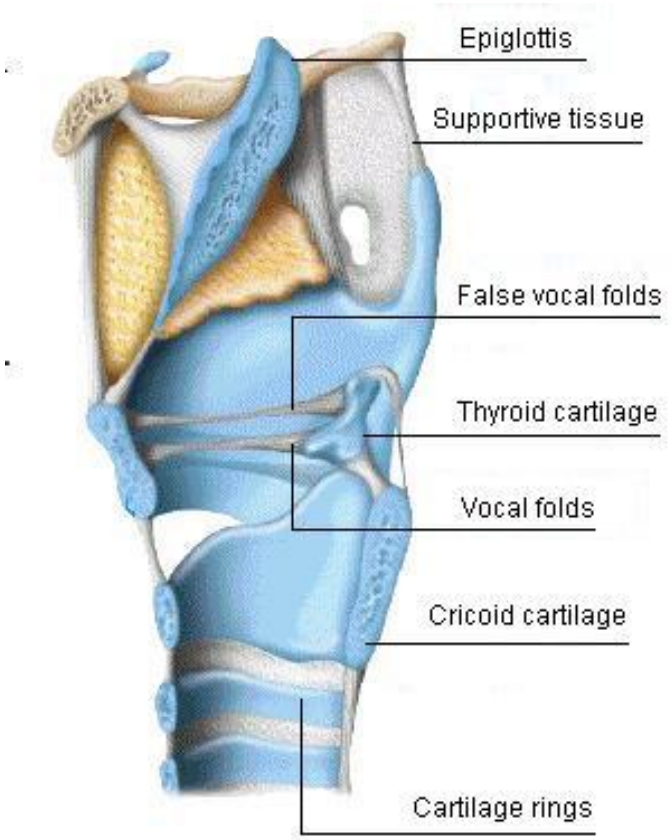


# Handling variation across time: Transgenerational

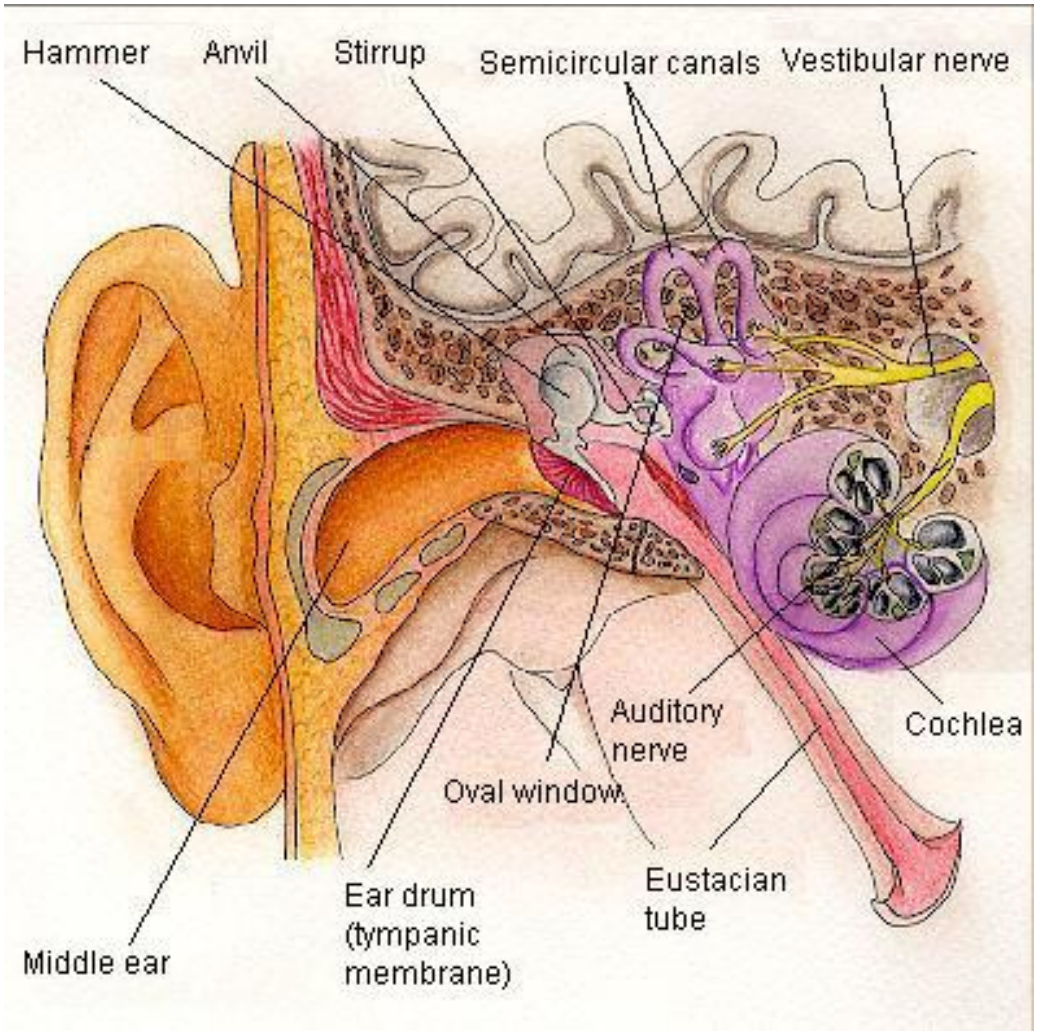


# How does it all work? Producing sounds

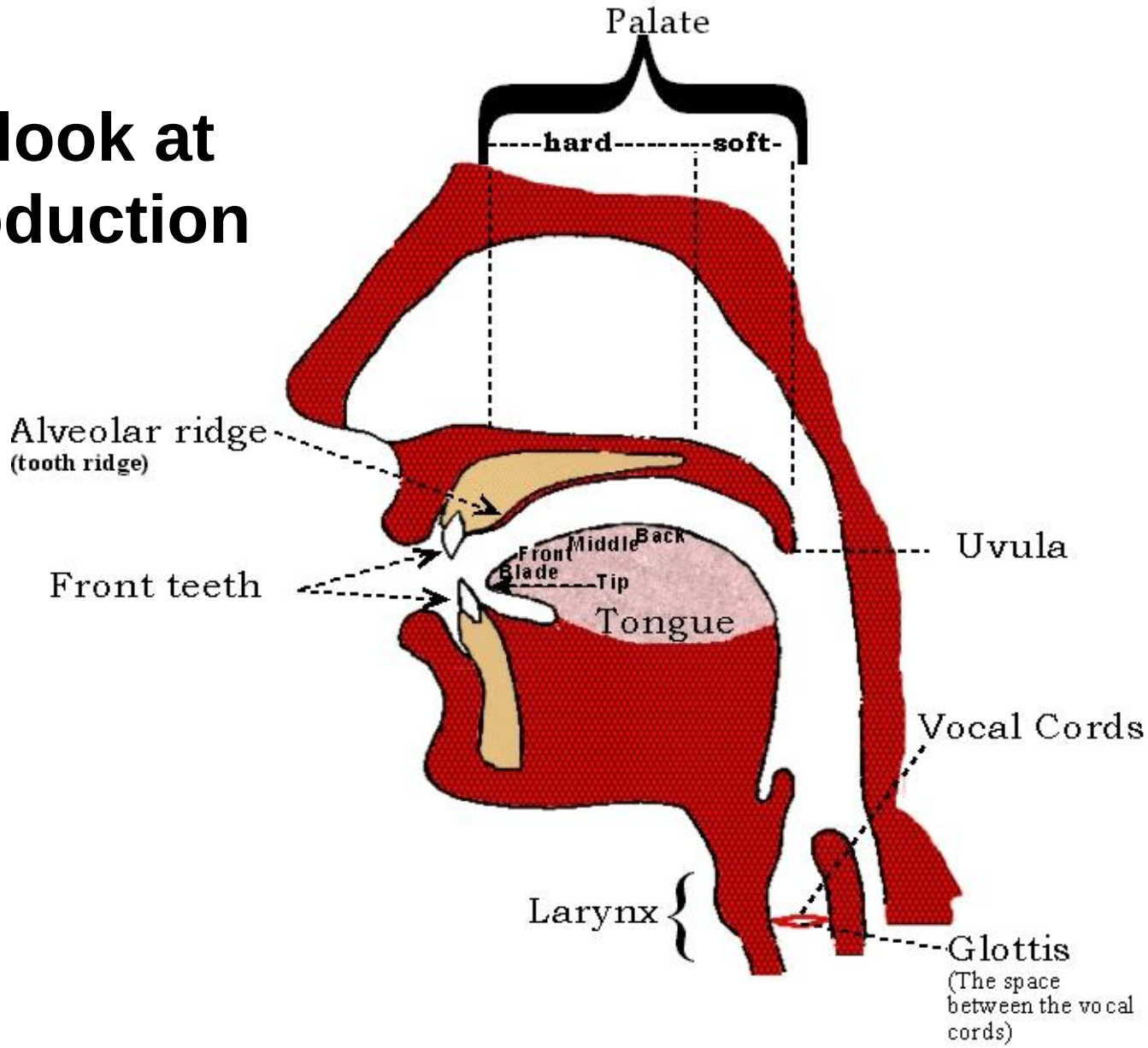


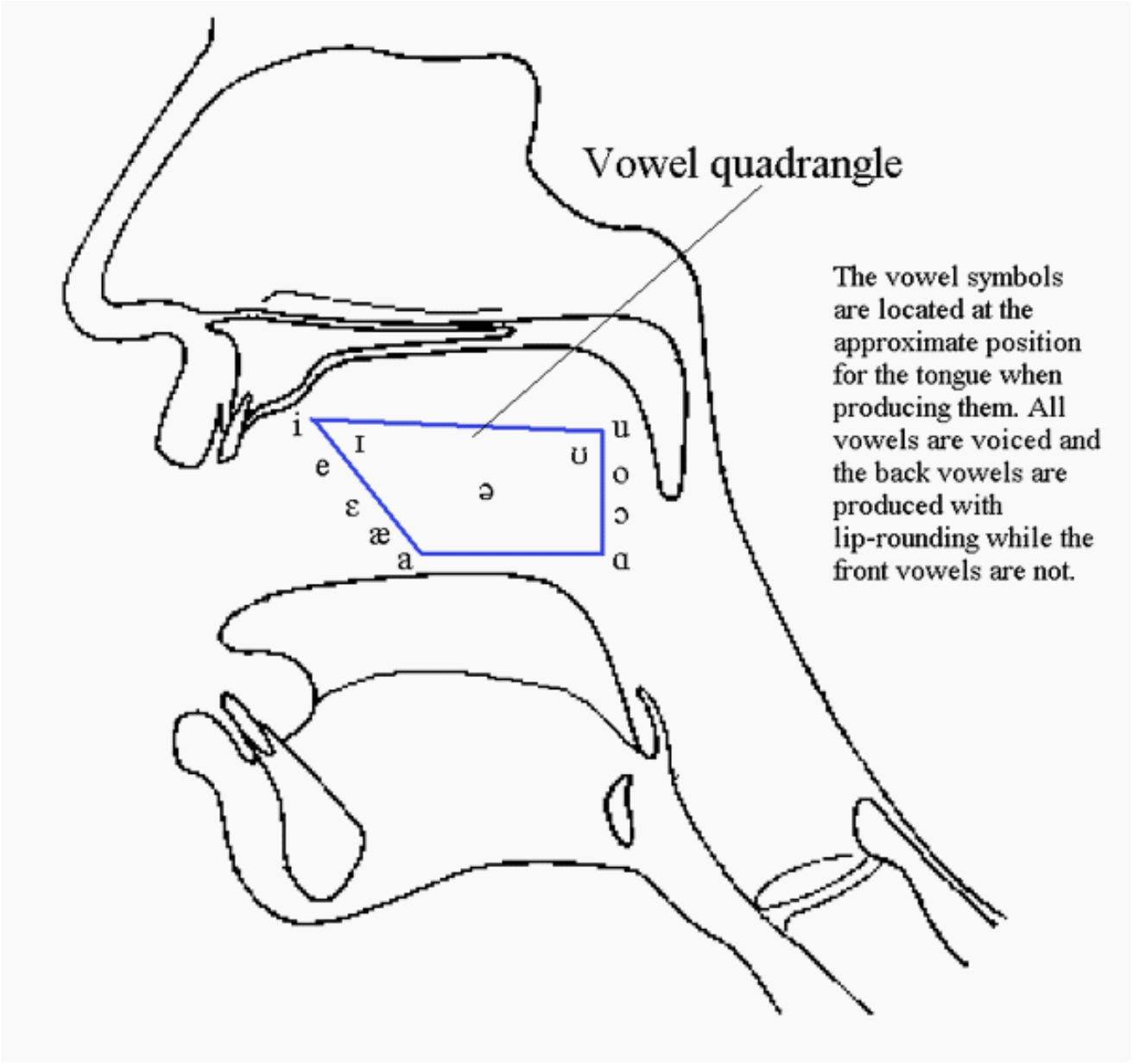



# How does it all work? Hearing sounds



# A closer look at sound production




Vowel quadrangle
The vowel symbols are located at the approximate position for the tongue when producing them. All vowels are voiced and the back vowels are produced with lip-rounding while the front vowels are not.
i
ɪ
ʊ
u
e
ə
o
ɛ
ɔ
æ
ɑ
a

# The vowels of language in phonological space

## VOWEL CHART AND SYMBOLS

*Monophthongs*

| Front | | | Back | |
|---|---|---|---|---|
| iː | | | uː | High |
| | ɪ | | ʊ | |
| | e | ə | ɜː | Mid |
| | | ʌ | ɔː | Low mid |
| | æ | | | |
| | | | ɑː ɒ | Low |

*beat* /biːt/, *bit* /bɪt/; *bet* /bet/; *bat* /bæt/, *bard* /bɑːd/, *bo(ttom)* /bɒtəm/; *bull* /bʊl/, *but* /bʌt/; *bought* /bɔːt/, *boot* /buːt/; *(butt)er* /bʌtə/, *bird* /bɜːd/;

| | | | | | |
|---|---|---|---|---|---|
| *Diphthongs* | rising: | ai, au, ɔi | *bile* /bail/ | *bow* /bau/ | *boil* /bɔil/ |
| | | ei, əʊ | *bait* /beit/ | *boat* /bəʊt/ | |
| | centring: | ɪə, ɛə, ʊə | *pier* /pɪə/ | *pear* /pɛə/ | *poor* /pʊə/ |

## Standard lexical sets

(RP vowel values with some variants, after Wells 1982)

| *Short vowels* | | *Long vowels* | | *Rising diphthongs* | |
|---|---|---|---|---|---|
| KIT | /ɪ/ | FLEECE | /iː/ | PRICE | /aɪ/ |
| DRESS | /e/ | PALM | /ɑː/ | MOUTH | /aʊ/ |
| TRAP | /æ/ | BATH | /ɑː/ | CHOICE | /ɔɪ/ |
| LOT | /ɒ/ | THOUGHT | /ɔː/ | GOAT | /əʊ/ |
| CLOTH | /ɒ, ɔː/ | GOOSE | /uː/ | FACE | /eɪ/ |
| STRUT | /ʌ/ | | | | |
| FOOT | /ʊ/ | | | | |

*Centring diphthongs / rhotacised vowels; Unstressed vowels*

| | | | | | |
|---|---|---|---|---|---|
| NEAR | /ɪə/ | /iɚ/ | | | |
| SQUARE | /ɛə/ | /eɚ/ | | | |
| CURE | /ʊə/ | /uɚ/ | | | |
| START | /ɑː/ | /ɑːr/ | COMMA | /-ə/ | |
| NORTH | /ɔː/ | /ɔːr/ | LETTER | /-ə/ | /-ɚ/ |
| FORCE | /ɔː/ | /oːr/ | HAPPY | /-ɪ/ | |
| NURSE | /ɜː/ | /ɚː/ | | | |

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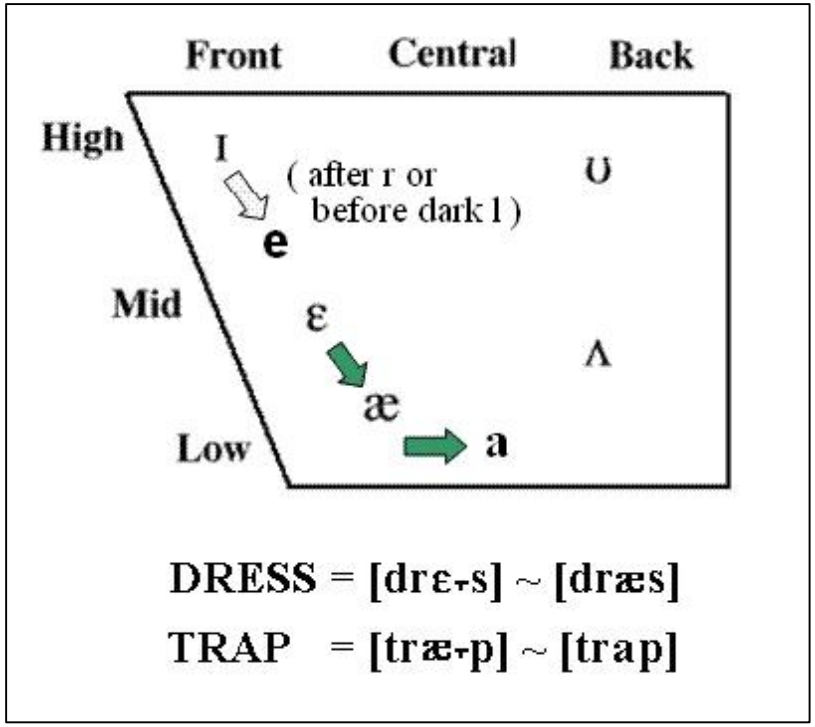
| CURE | /ʊə/ | /uɚ/ | | | |
| START | /ɑː/ | /ɑːr/ | COMMA | /-ə/ | |
| NORTH | /ɔː/ | /ɔːr/ | LETTER | /-ə/ | /-ɚ/ |
| FORCE | /ɔː/ | /oːr/ | HAPPY | /-ɪ/ | |
| NURSE | /ɜː/ | /ɚː/ | | | |

# Changes in the vowel system of present-day varieties of English

# Short Front Vowel Lowering (SFVL) in Dublin English




In recent years young female speakers of non-vernacular Dublin English have been showing a lowered vowel realisation, near [æ], in the DRESS lexical set and a centralised [a] in the TRAP set. The KIT vowel is rarely lowered and only in the environment of /r-/, e.g. *rid* [red]. The LOT and STRUT vowels are, as yet, unaffected by SFVL.

# Young (lower-)middle class women in Western societies

Females in service jobs: flight attendants, surgery nurses, secretaries, telephonists, receptionists, bank clerks, etc.

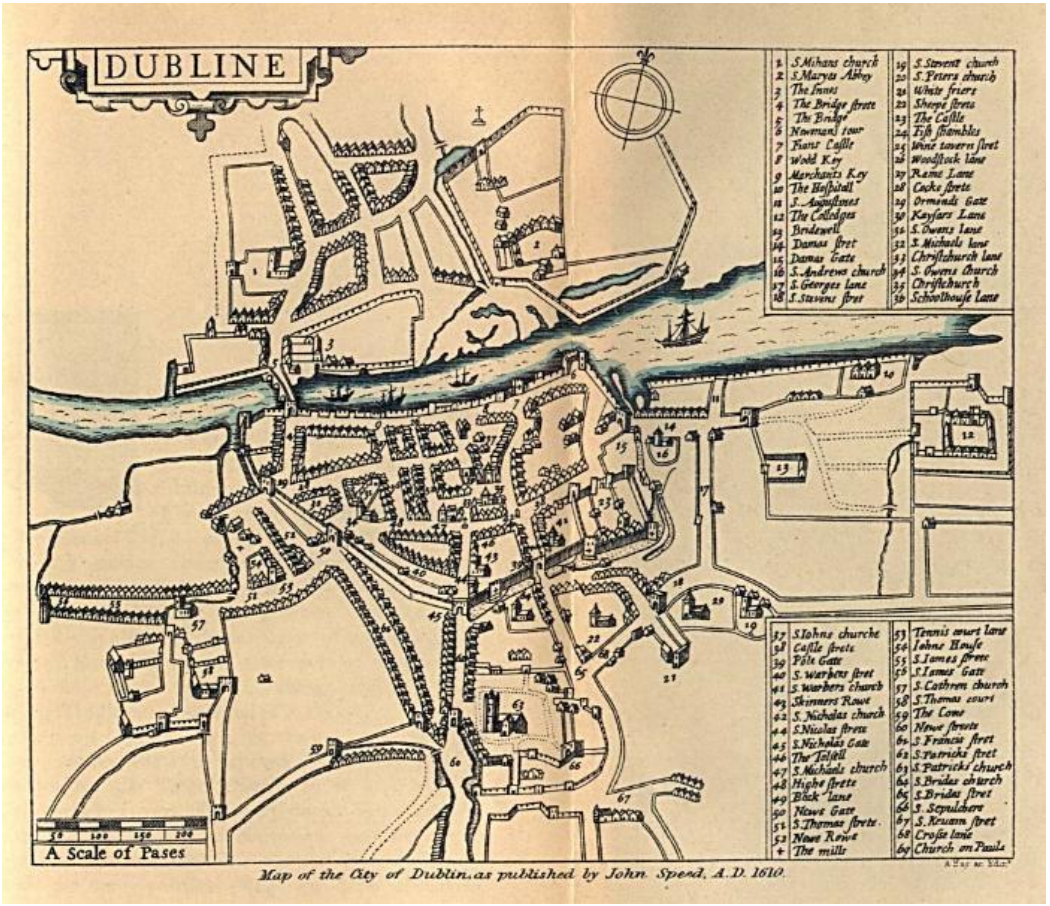





# The gender paradox

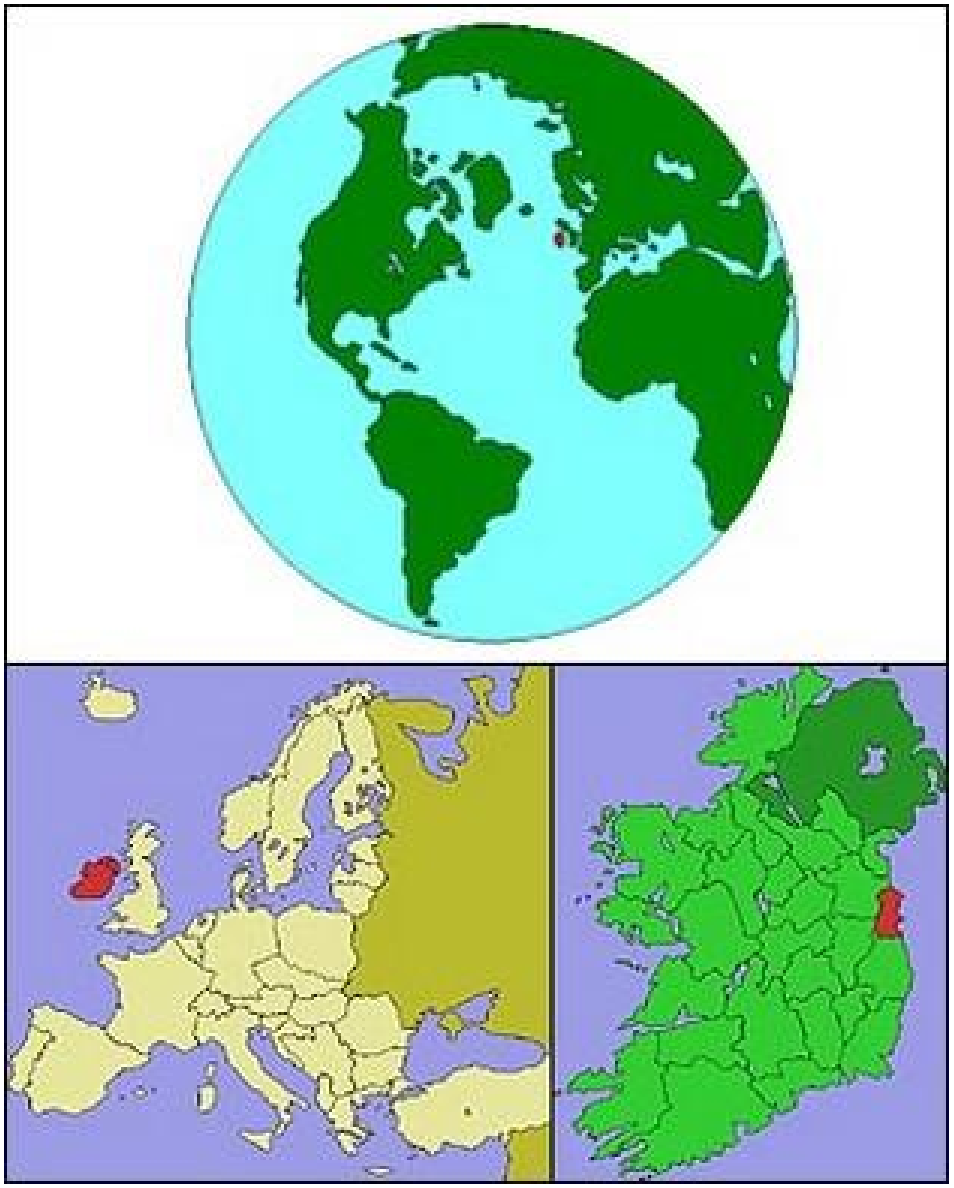
When a language is in a state of relative equilibrium women adhere to the standard and comply to language norms in a society. However, if there is a socially motivated change happening then women are at the forefront of that change.

# The English Language in Dublin



English was taken to Dublin in the late 12th century and has essentially developed separately from English in England since.


Derry
Belfast
Sligo
Dublin
Galway
Limerick
Waterford
Cork



The Dublin metropolitan area is home to nearly 1.5m people and so contains a good third of the entire population of the Republic of Ireland.

Dublin is divided into a more working-class North Side where the local vernacular predominates and a more affluent South Side where non-vernacular forms of speech are used.

Local speaker [FARM_with_low_rhoticity.mp3]

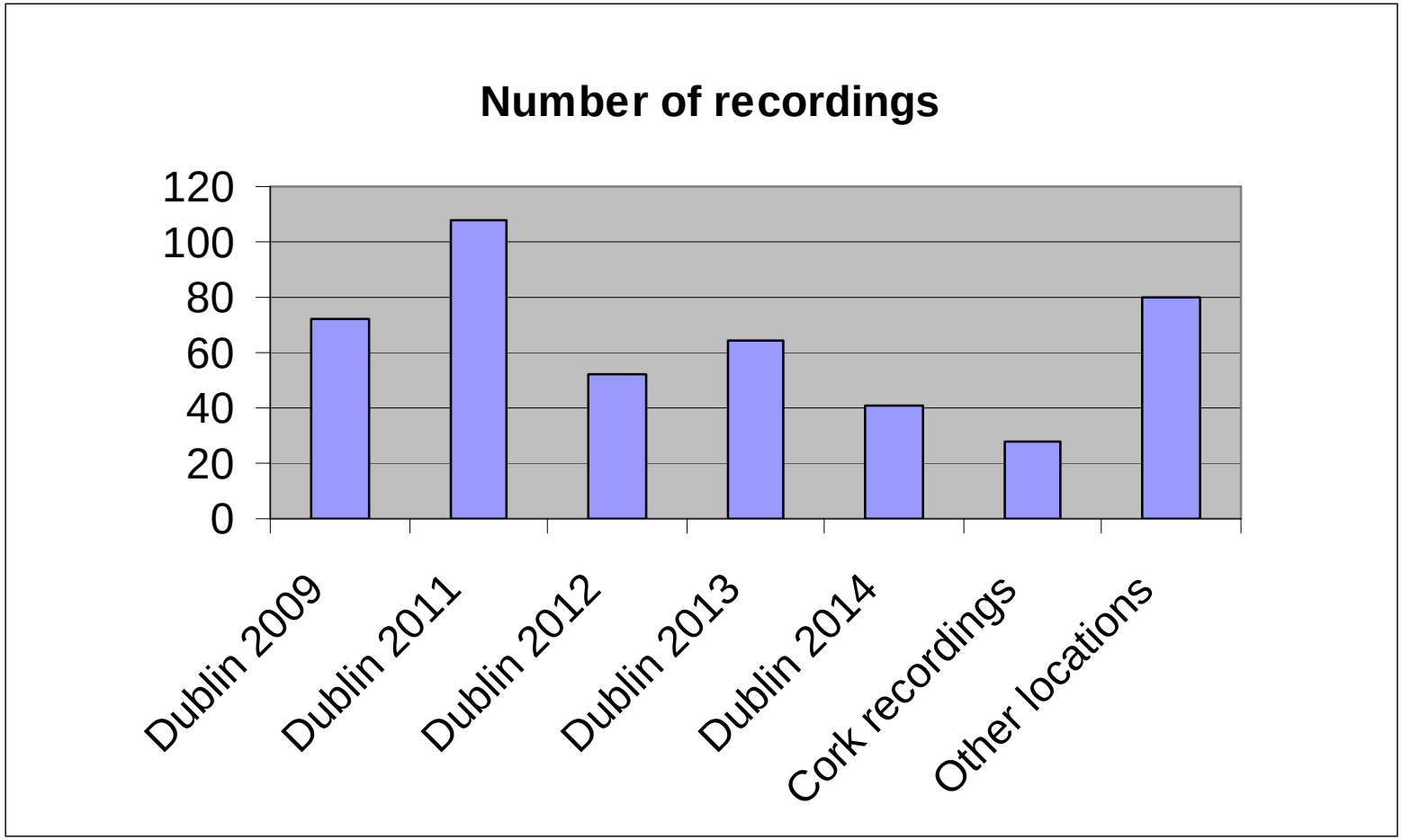
Non-local speaker [FARM_with_retroflex_R.mp3]

## Speaker group with Short Front Vowel Lowering

The group of speakers who show SFVL in Dublin do not use the local vernacular, a stable form of English which has existed for several centuries in the city.

Instead they are non-vernacular speakers who use general supraregional (southern) Irish English, but importantly with the changes being described here. The group consists at present entirely of young females but does not appear to encompass all members of this group. That is, not all young females engage in SFVL but certainly enough of them to make this an established feature among these speakers.

# Recordings of English in Dublin (and some other locations) with reference to Short Front Vowel Lowering (SFVL), total: 445.



## The details of Short Front Vowel Lowering in Dublin

There is practically no lowering of the KIT vowel except in the environment of /r/ as in *rid* [red].

There is little or no retraction of the short front vowels.

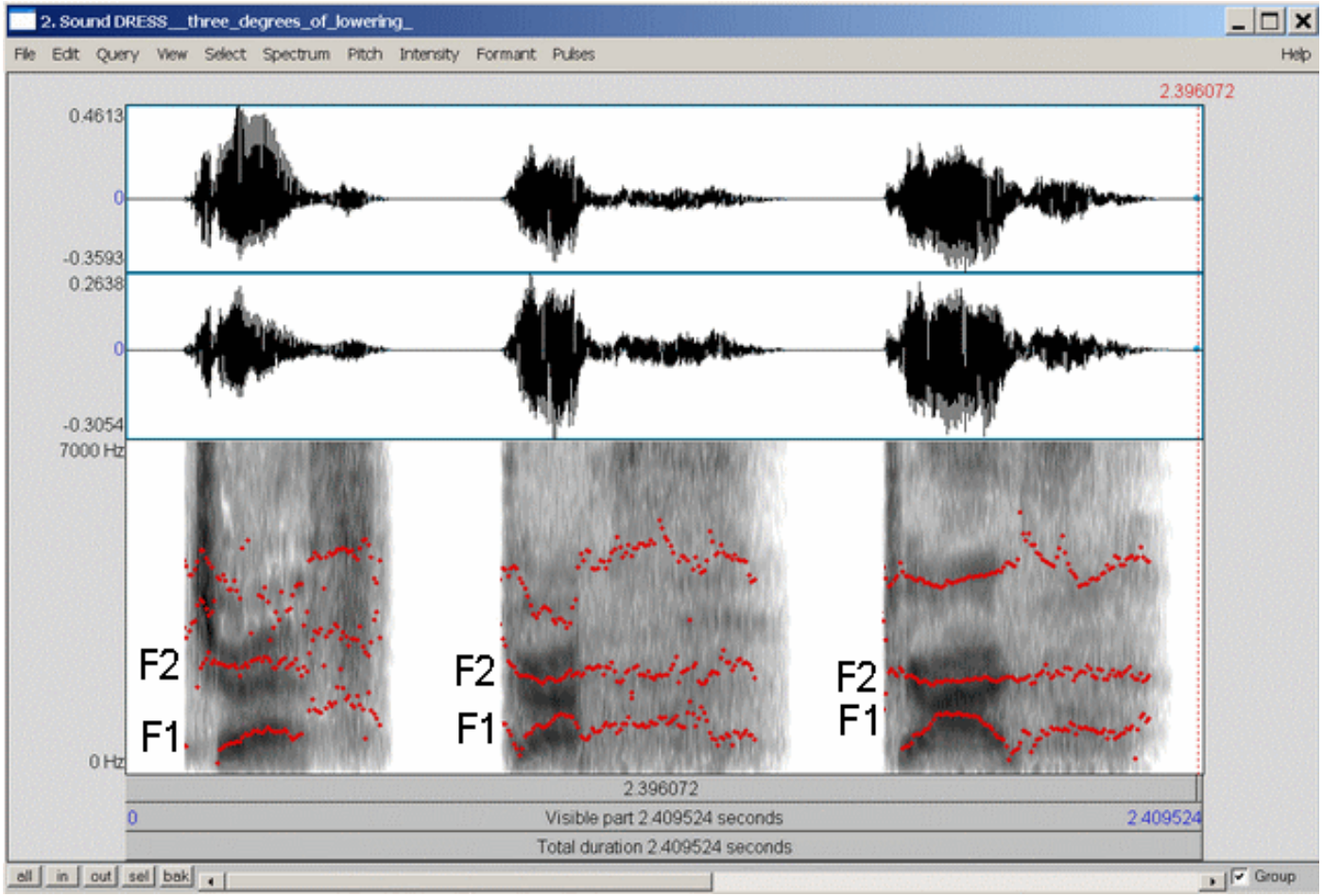
Nasals disfavour lowering, e.g. *friend* is [frɛnd], not [frænd].

SFVL lowering is especially common before /k/ and /s/, cf. *yes* [jæs] and *back* [bak]. In advanced Dublin English some speakers have an ejective here.
[SACK_(Dublin_female_with_ejective).mp3]

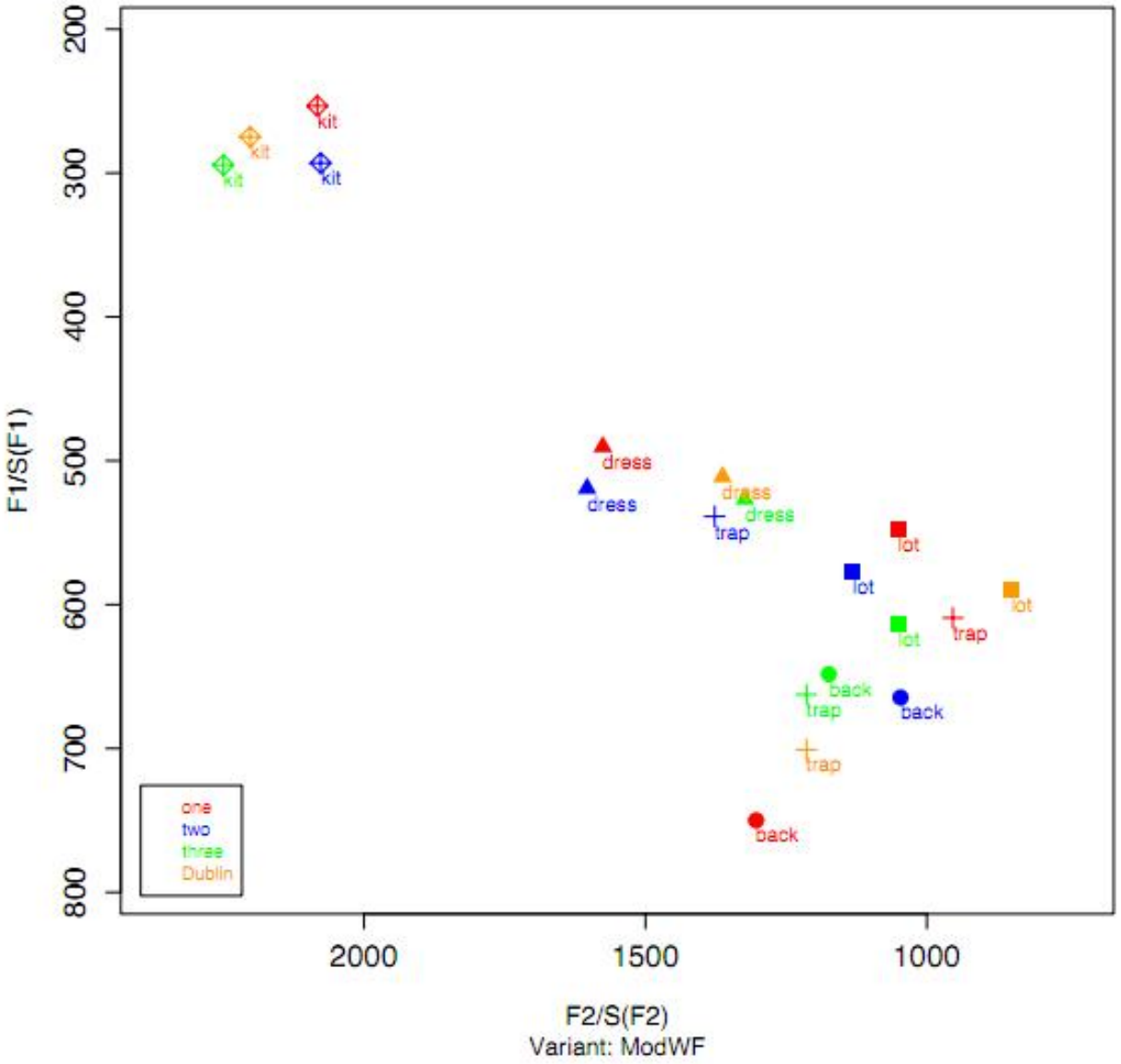
The articulation of the LOT and STRUT vowels have not (as yet) been affected by DRESS lowering and TRAP retraction.

# Sound samples of advanced Dublin English

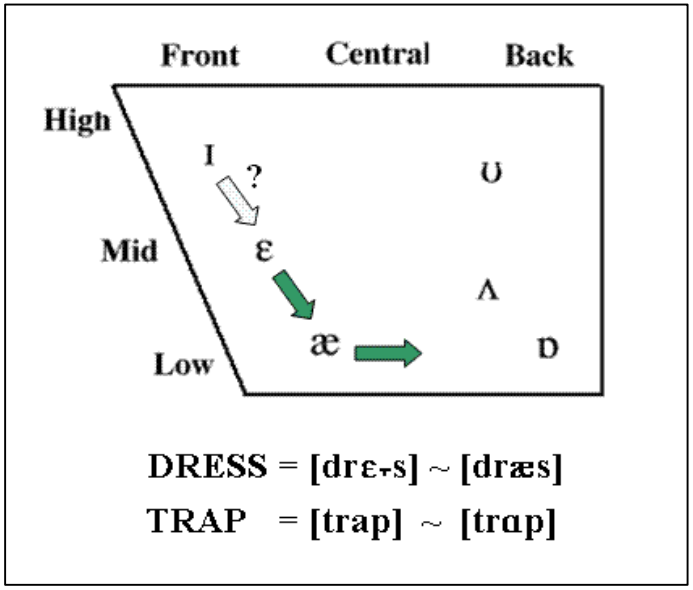
| | |
|---|---|
| DRESS lowering | [DRESS_with_ASH.mp3] |
| TRAP retraction | [TRAP_with_A.mp3] |
| BACK retraction | [BACK_with_retracted_vowel.mp3] |
| STRUT centralisation | [STRUT_central_with_slight_rounding.mp3] |
| GOOSE fronting<br>MOUTH fronting | [DO_DOWN_with_complete_fronting.mp3] |
| THOUGHT raising | [NORTH_with_raised vowel.mp3] |
| CHOICE raising | [CHOICE_with_raised_onset.mp3] |



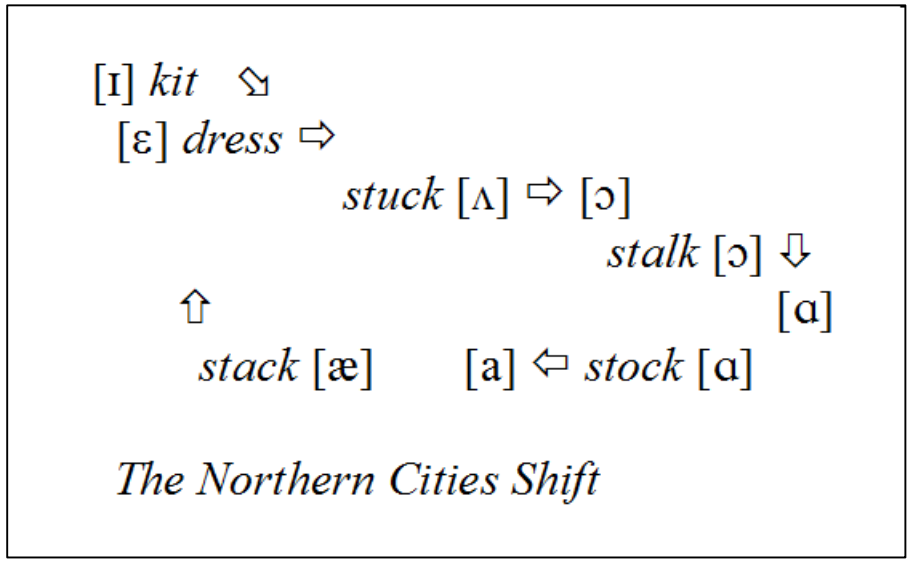

In the above spectrogram F1 and F2 are progressively closer to each other from left to right due to the raising of F1; this is a clear indication of increased lowering of the DRESS vowel from left to right for the three instances from the above three speakers (slight, moderate and extreme respectively).


F1/S(F1)
200
300
400
500
600
700
800
2000
1500
1000
F2/S(F2)
Variant: ModWF
one
two
three
Dublin
kit
dress
trap
lot
back

# Short front vowel lowering and other phonetic shifts




*Short front vowel lowering*



## Short front vowel lowering and other phonetic shifts

Short Front Vowel Lowering would seem to run counter to the NCS as it involves TRAP lowering and retraction, not raising. A group of about 30 speakers were analysed by a student of mine, Anita Teichmann, during a stay in the Twin Cities, Minnesota, to ascertain if/how the NCS is spreading into this state. Her results show that female teenagers constitute the group with practically no TRAP raising which could point to their resistance to engaging in the NCS because of their intuitive recognition that SFVL is the cool and trendy pronunciation today.

## Possible reasons for SFVL

1) Internal argument:

SFVL is favoured in the environment of liquids, i.e. post-/r/ and pre-/l/. /r/ would depress the third formant and hence favour vowel lowering, cf. *breakfast* [brækfəst]. In non-vernacular Dublin English syllable-final /l/ is pharyngealised and so would have a lowering effect on the preceding vowel, e.g. *hotel* [həʊtɛˌˠæl].

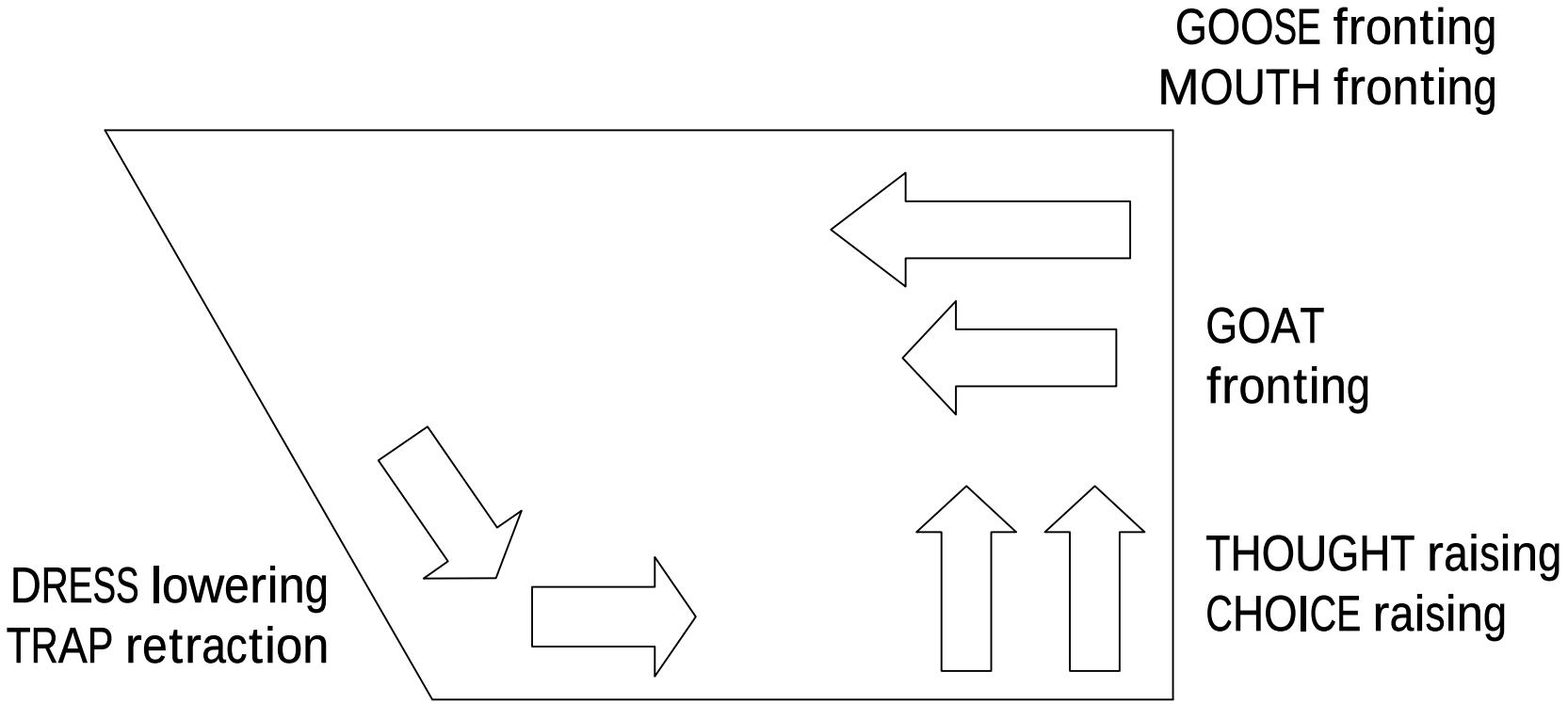
2) External argument:

Exposure in the media to young female speakers with SFVL. In Ireland young female broadcasters, weather forecasters and continuity announcers on Irish national radio and television do have SFVL. And it is also true that on local radio channels throughout the country young female broadcasters are now showing SFVL. [sound file]

But this suggestion would still leave the unanswered question: how did people in the media pick up SFVL to begin with? Did some young females speakers go to Canada / California and pick up the rudiments of SFVL there and then plant the seed of this shift back in Dublin with the shift then spreading throughout the city?

# A possible explanation for Short Front Vowel Lowering

*Rotation Principle*: fronting of mid to high back vowels causes lowering and retraction of mid to low front vowels



## Arguments in favour of the Rotation Principle

1) All speakers with Short Front Vowel Lowering also have GOOSE-MOUTH-GOAT Fronting as well as THOUGHT-CHOICE Raising. The latter preceded the former and hence SFVL would be an example of a push-shift.

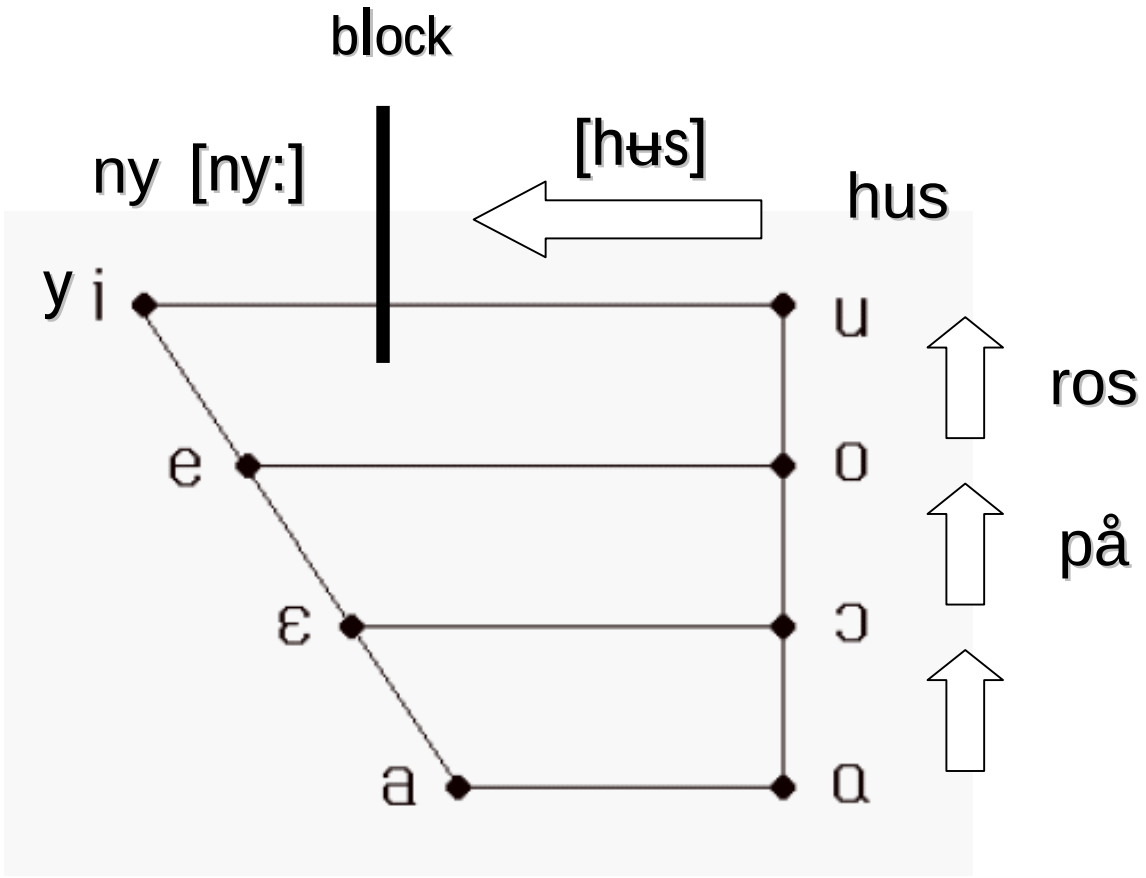
2) Push-shifts are supported by phonological evidence from the history of English, above all the Great Vowel Shift.

## Possible arguments against the Rotation Principle

1) Vowels of various types are involved (long and short monophthongs as well as diphthongs).

2) The FLEECE, FACE and PRICE vowels, and possibly the KIT vowel, are not affected by these movements.

# Central Scandinavian shift (Swedish and Norwegian)



# Stable vowel configuratons (Finnish and German)

| | Front | | Back | |
|---|---|---|---|---|
| | unrounded | rounded | unrounded | rounded |
| Close | i | y | | u |
| Mid | e̞ | ø̞ | | o̞ |
| Open | æ | | ɑ | |

Finnish

Languages with symmetrical distributions of vowels in space tend to be stable.

German

| | Front | | | | Central | | Back | |
|---|---|---|---|---|---|---|---|---|
| | unrounded | | rounded | | | | | |
| | short | long | short | long | short | long | short | long |
| Close | ɪ | iː | ʏ | yː | | | ʊ | uː |
| Close-mid | | eː | | øː | ə | | | oː |
| Open-mid | ɛ | ɛː | œ | | | | ɔ | |
| Near-open | | | | | ɐ | | | |
| Open | | | | | a | aː | | |

## Possible reasons for SFVL

Charles Boberg sees the *Don – dawn* merger in Canadian English as reducing the number of distinctions in the low back region of phonological space, triggering a movement of other vowels towards this area. The Dublin developments show an emptying of the low back area due to THOUGHT and CHOICE raising.

Both these developments constitute an under-utilisation of phonological space inducing other vowels, in this case short front vowels, to lower and retract, availing of an area with fewer vocalic distinctions than it can carry and hence reaching a more symmetrical distribution of vowels in phonological space.

## Possible reasons for SFVL

The Rotation Principle of vowel movement has one further advantage: it renders the question of an exclusively external or internal motivation for Short Front Vowel Lowering less relevant. Rather it provides a pre-existing internal argument which, given an appropriate external stimulus, can manifest itself as a rotation in vowel space which, while it will not be identical to that found elsewhere in the anglophone world, will nonetheless show sufficient likeness to be classified as the same type of change.

## Conclusion: when does variation become change?

At any one point in time, variation in speech will exist in any community. The question for the linguist is: when will this variation become established as change, i.e. when is it passed on to the next generation and no longer be reversible?

There is no simple any to this question. Some changes of the past few decades have become established in Irish English, e.g the use of a 'dark' l in words like *meal, deal*, or the use of a 'retroflex' r at the ends of words, e.g. *sore, car*.

So the jury is still out on Short Front Vowel Lowering. But ultimately social factors will decide the matter, that is whether more and more speakers regard this pronunciation as worthy of imitation and hence adopt it themselves.

Thank you for your attention.

Any questions?

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University of Limerick

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