



How Do Languages Change?

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Outline of the talk

- **Introduction:** The basic issues
- **Some distinctions and a brief overview:**
 1. **change vs. diffusion**
 2. **I-language and E-language**
- **More distinctions and a continuing overview:**
 1. **apparent-time vs. real-time**
 2. **age grading vs. lifetime change**
- **Ongoing research projects** to study these issues:
 1. Evidence for “**linguistic change in apparent-time**”
 2. Evidence for “**linguistic change in real-time**”
- **Concluding remarks**

Introduction

The main question: “How Do Languages Change?”

An illustrative example: Changes in the short vowel system of Old Icelandic (OI, see e.g. Benediktsson (ed.) 1972; 2002:56, 60):

	12th century:					13th century:			
	front		back			front		back	
	unrd	rd	unrd	rd		unrd	rd	unrd	rd
high	i	y		u	high	i	y		u
mid	e	∅		o	mid	e	∅		o
low	(e̥)		a	∅	low			a	

Common belief: “This was a simplification of the system.”

Questions: How did this happen? Who “simplified the system”?



Introduction, 2

Benediktsson's comments on the merger (2002:60):

- “This change took place at the end of the twelfth century or in the beginning of the thirteenth, probably at somewhat different times in the different varieties of Icelandic.”

Unanswered questions (and not commonly asked in traditional historical linguistics: **How** did this happen?:

Three (?) possibilities:

1. Old speakers had the / \emptyset : \varnothing / distinction in their language in the (late) 12th century but after 1200 they (gradually?) lost it.
2. Shortly before 1200 or later new generations emerged who did not have the / \emptyset : \varnothing / distinction although their parents did.
3. The sound system just changed, “simplified itself”.



Introduction, 3

Assuming that languages do not change unless they are being used, there are actually only **two** possibilities:

- A** Individual speakers “**change their language**” (always/typically/most of the time ... unconsciously).
- B** Languages change when **new generations acquire “a different language/grammar”** (“imperfect transmission”) and hence speak differently.

Not necessarily mutually exclusive possibilities:

- It could be that certain types of change occur as a **combination** of **A** and **B**.
- Maybe **A** holds for **certain types of change** (e.g. changes in the lexicon/vocabulary) but **B** for **other types of change** (phonological?, syntactic?)



Introduction, 4

More questions:

- **Why** does traditional historical linguistics **rarely consider possibilities A and B**, i.e. when investigating “old” linguistic changes (like the “simplification” of the Old Icelandic vowel system)?

Answer:

- We typically **do not have the appropriate data** to decide between the two possibilities when investigating changes in older stages of a given language.
- **How** can we investigate the role/involvement/nature of the two possibilities, A and B?

Answer:

- By investigating **current linguistic changes** and try to determine how they happen.



Introduction, 5

One more question — and the most important one:

- **Why is it important** to learn more about possibilities A and B?

Answer:

- **It may increase our understanding of the nature of linguistic change** and hence the **nature of human language.**



Some Distinctions and a Brief Overview

1. Change vs. Diffusion:

- Some linguists (e.g. Hale 2007) make a sharp distinction between (actual) **change** (i.e., the original “**innovation**”, which may typically (always?) be the result of “imperfect transmission”) and its **diffusion** (i.e., how/why the innovation spreads to new generations/other speakers ...).
- **Sociolinguists** are typically interested in **diffusion** (in Hale’s sense), i.e. how and why certain variants spread throughout the linguistic community, whereas **generative linguists** tend to be more interested in the **innovation** (Hale’s **change**) and how/why it has come about.
- This is related to the distinction between **I-language** and **E-language**.



Some Distinctions ..., 2

2. I-language vs. E-language:

- **I-language** is the internal(ized)/individual language that the speaker acquires, his/her knowledge of the language.
- By contrast, **E-language** (**E** for external(ized)) is pretty much everything else we mean by *language* (e.g., when we say: “*vatn* is not a word in the English **language**.”)
- Chomsky (1986 and later, see also Isac and Reiss 2008 and many others) has argued that **I-language** is/should be main object of study of linguistic theory.



Some Distinctions ..., 3

A (slight) reformulation of a previous question:

- Does — or can — **linguistic change** involve the change of the language (“linguistic knowledge”) speakers have acquired, i.e. their **I-language** (cf. **possibility A** on slide 5 above), or is linguistic change proper only involved when a speaker of a new generation has a different **I-language** than members of previous generations because of some “innovation” or “imperfect transmission” (cf. **possibility B** on slide 5 above).

Different opinions on this, cf. the overview below.



Some Distinctions ..., 4

A bit of history (my summary and interpretation):

- **Halle 1962** (long before Chomsky's introduction of the distinction between I-language and E-language — even before Chomsky's distinction between **competence** and **performance**, e.g. 1965): Adults **change their language to some extent but not the actual linguistic system** (i.e., they may change their use/usage in various ways). Children then interpret these changes as evidence for a different underlying system. Then we have a change in the linguistic system with a new generation.
- **Labov 1963, 1966** and later: Assumed that the **linguistic knowledge was relatively stable** after the acquisition period and introduced the concept of **apparent-time** to describe possible differences between groups of speakers (cf. below).
- **Weinreich, Labov and Herzog (WLH) 1968**: Emphasized the relationship between **linguistic change** and **variation**. They believed that **diffusion of variants** depended on sociological factors.

Some Distinctions ..., 5

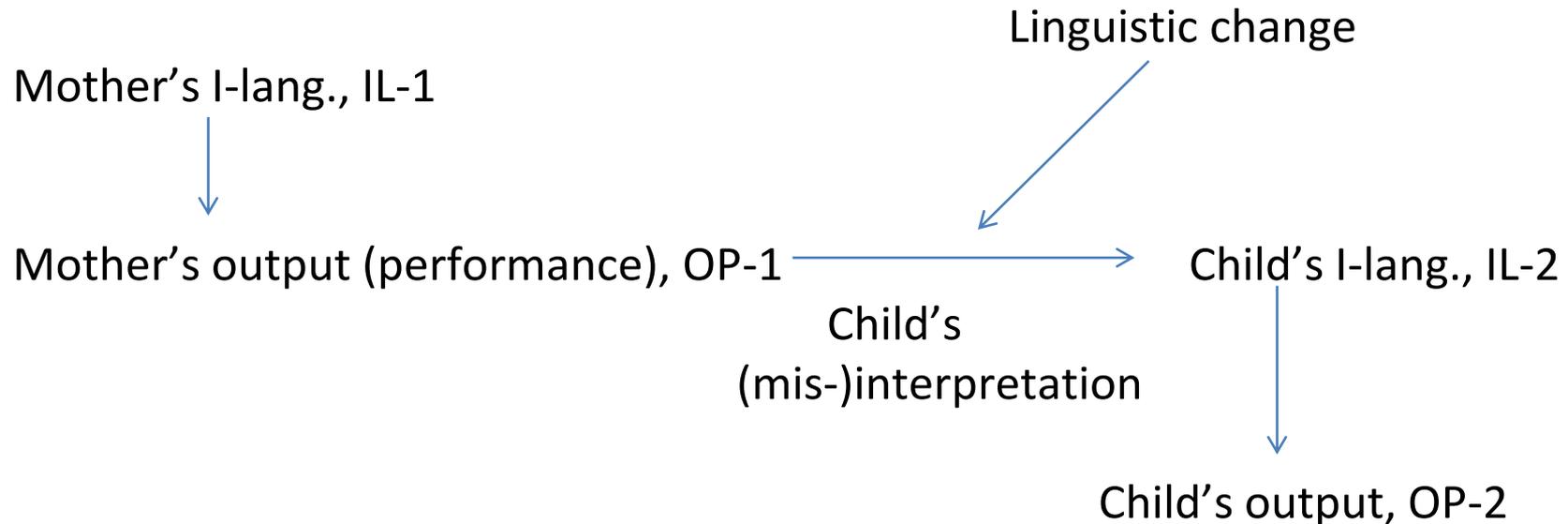
A bit of history, contd.:

- **Andersen 1973** believed that WLH had not paid enough attention to the **origin** of linguistic change and wanted to distinguish between **rule acquisition** based on (incomplete) data (which may involve **reinterpretation** or **misinterpretation**) and **rule generalization** which extends the rule to new cases. In both instances we have a **change** but of different nature (Anderson used the terms **abductive** and **deductive change**).
- **Lightfoot** (1979 and later) emphasizes (like Halle 1962 and Andersen 1973) the **role of children acquiring the language** as instigators of change.
- **Hale** (2007), too, sees **language acquisition** as the locus of linguistic change and claims that change “**does not take any time**” and thus there is no such thing as a “change in progress”. Change occurs when the child “**misinterprets**” the data, but the **diffusion** of change to the linguistic community may take time. New generations adopt the innovation (it is in their input). Adults can also “learn a new dialect”, e.g. the standard dialect, but that is not really “linguistic change”.

Some Distinctions ..., 6

An interim conclusion:

- Many emphasize the role of children acquiring language as “instigators” of change, maintaining that this is where chance occurs (innovations). A diagram illustrating this (in the spirit of Hale 2007 and others, e.g. Guðmundsdóttir 2008):





Some Distinctions ..., 7

More questions:

- If we assume that the locus of linguistic change is typically in language acquisition, does it necessarily follow that there can be **no changes** in the linguistic system/competence/knowledge/I-language ... of adults?
- Is linguistic change in adults restricted by the nature of our brain and how it matures? Does this have something to do with the (alleged) lack of “plasticity” of the adult brain, cf. ideas about the **critical period** in language acquisition (usually traced back to Lenneberg 1967)?



Some Distinctions ..., 8

Different opinions:

- Anderson og Lightfoot (2002:209): “Whatever is in place by puberty is what we are “stuck with”.”
- Hale (2007, especially pp. 44–45)): Changes in an adult’s output may look like they derive from a change in the adult’s grammar when what has in fact happened is that the adult has acquired **an additional grammar** (e.g. a standard dialect grammar) while keeping the original grammar “intact”. Increased “use” of the new grammar, typically under certain sociolinguistic conditions.
- Grace (1969:105): Adults are capable of making only certain kinds of changes in their grammars, but some kinds of change are “most profitably conceptualized” as changes in the grammars of adults rather than as “restructuring” by children.



Some Distinctions ..., 9

Summary of some claims:

- Many generative linguists (e.g. Hale 2007) want to distinguish between **change** (the actual innovation) and **diffusion**. **Sociolinguistic factors** undoubtedly affect diffusion but the role of linguistic factors is debated: “I believe that diffusion is a highly unconstrained process—i.e., that any possible ‘change’ could just as easily diffuse under the proper sociolinguistic conditions for diffusion” (Hale 2007:39).
- Changes in linguistic behavior caused by diffusion are “**reversible**”, cf. that speakers can often revert to their native phonological dialect even if they have mastered a standard one (at least to some extent; see also Hale 2007:44–45).
- Some sociolinguists have, however, emphasized **linguistic factors in diffusion**, e.g. in contact situations between dialects (cf. Trudgill 1986, Árnason and Thráinsson 2003).



Some Distinctions ..., 10

One more question:

- What kind of evidence could help us decide whether adults (can) **change their grammar** (their I-language/linguistic knowledge/linguistic system ...) as opposed to, say, just **learning a new grammar** (to some extent, e.g. a standard dialect or some other dialect) that they may “use” under certain circumstances?

An answer:

- Studying the “linguistic behavior” of the same speaker(s) over a long period of time.

A problem:

- The distinctions we have been considering may be too “crude”. So here are some additional ones.



More Distinctions and a Continuing Overview

“Apparent-time” and “real-time” (originally from Labov):

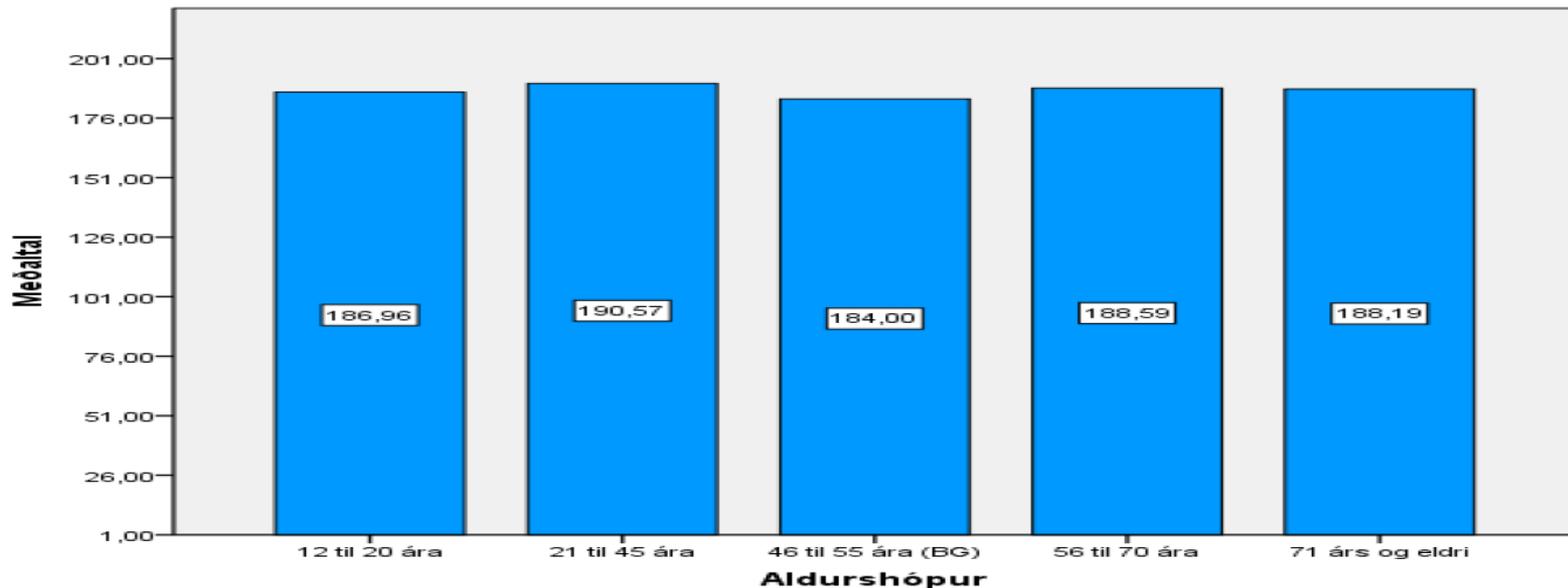


Figure 1: Mean occurrence/acceptance of some linguistic phenomenon, classified by age groups

Interpretation: No difference between age groups = Stability?

More Distinctions ..., 2

Labov's ideas, contd.:

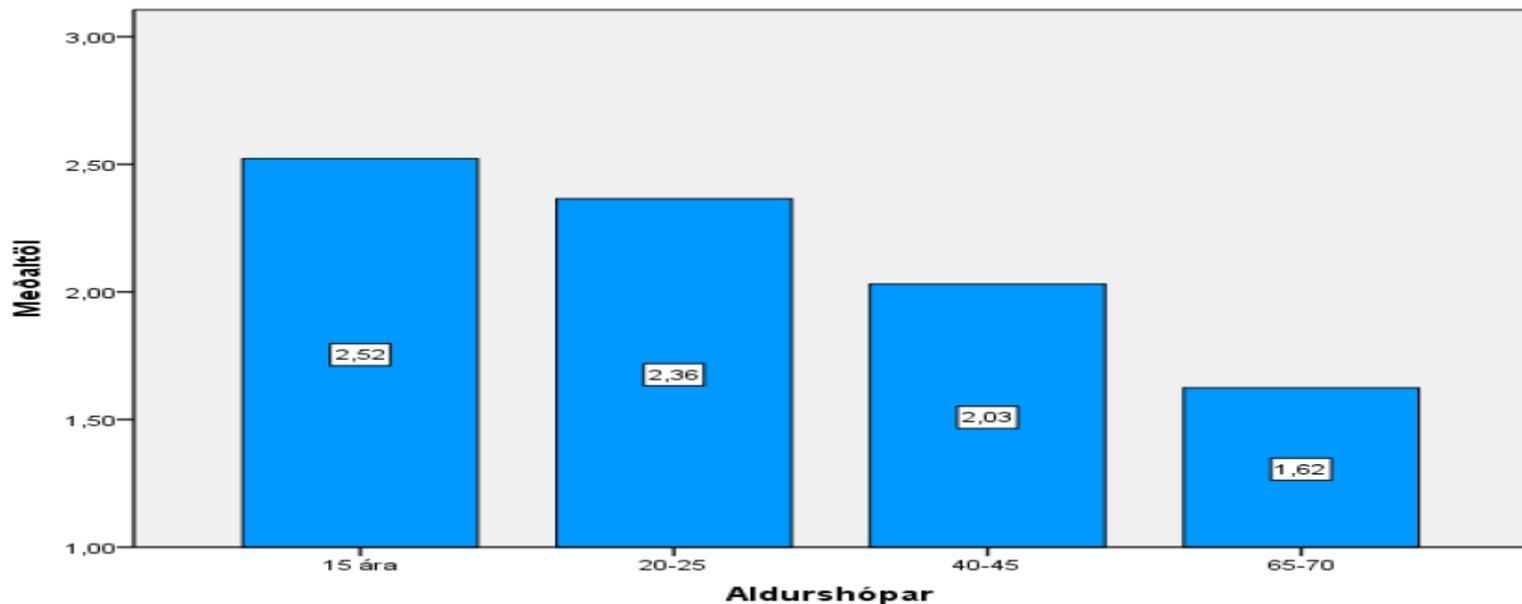


Figure 2: Mean occurrence/acceptance of some linguistic phenomenon, classified by age groups

Three possible interpretations: **age grading**, **lifetime change**, **apparent-time** (meaning what?)

More Distinctions ..., 3

Possible interpretations of figures like 1 and 2 (cf. e.g. Labov 2001:83; Sankoff and Blondeau 2007:562–563):

bars (lines):	inter- pretation:	individual speakers:	linguistic community:
1. even (level, cf. fig. 1)	stability	stable	stable
2. even (cf. fig. 1)	cont. change	change	changes
3a. uneven (sloping, cf. fig. 2)	age grading	change	stable
3b. uneven (cf. fig. 2)	lifetime change	change	changes
4. uneven (cf. fig. 2)	apparent-time	stable	changes

Age grading: When a particular linguistic trait decreases or increases with age and this development repeats itself.

Lifetime change: When individuals change their language as they grow older and this continues in the same direction with a new generation.



More Distinctions ..., 4

(Another) Interim conclusion:

- Bar charts like *figs. 1–2* do not tell the whole story. They can be interpreted in different ways (cf. slide 19). We cannot, for instance, determine what is going on in the “linguistic community” (or: whether the E-language is changing) by doing a synchronic study comparing age groups and studying bar charts of this kind.

So what can we do?

- Do a **comparable study** of a **given linguistic** community, preferably **the same speakers**, over a longer period of time, a **real-time study** (longitudinal study).



More Distinctions ..., 5

Two kinds of **real-time studies** (cf. e.g. Sankoff and Blondeau 2007:561):

- In a **trend study** the language of **comparable groups of speakers** is studied in a similar fashion two or more times with several years in between the studies. That way the direction of an possible change (or diffusion?) can be determined.
- In a **panel study** the language of the **same group of speakers** (same individuals) is studied in a similar fashion two or more times with several years in between the studies. That way possible changes in the grammars of individual speakers can be studied (or their acquisition of or changes in their use of “different grammars”, cf. Hale 2007).

More Distinctions ..., 6

Once we have done a real-time (longitudinal) study, which questions could we answer?

1. **Little or no difference between age groups** (even bars, no slope):
 - Is the E-language (linguistic community) **stable** or do we have a **change** that affects all age groups equally? (This would involve “change” in the language of individuals (actual change or diffusion (acquisition and use of a new grammar, according to Hale).)
2. **Considerable difference between age groups** (unev. bars, slope):
 - Is this a **real change** (in the wide sense, including diffusion-induced changes in language use) and not **age grading**?
 - How, and to what extent, can the language of adults change and what does that tell us about the nature of language, linguistic knowledge, I-language ...?

(Keep in mind the difference between a **trend study** and a **panel study**.)



Four Research Projects

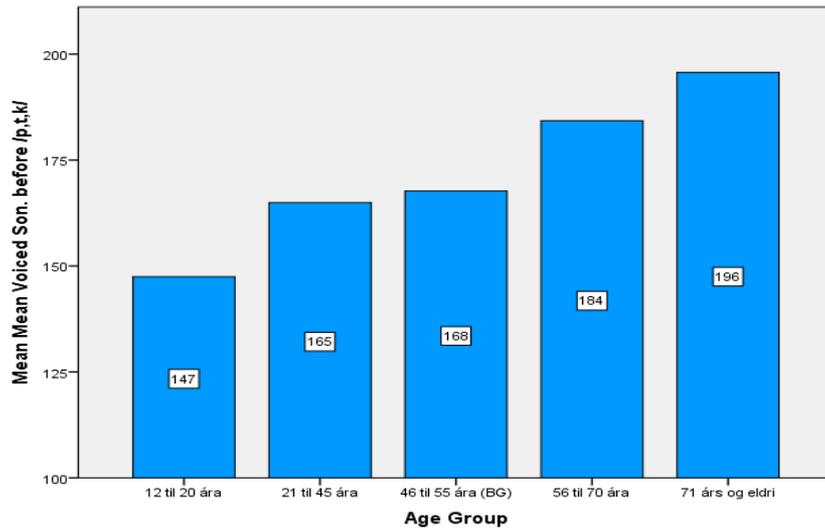
- 1. Survey of phonological dialects in Iceland** in the 1980s (**RÍN**): Extensive overview of phonological dialects in Iceland; some 2800 subjects; different age groups; all parts of the country; partially a combination of a **trend study** and a **panel study** since some of the subjects had been “tested/interviewed” in the 1940s and the results were being compared. (PIs Kristján Árnason and Höskuldur Thráinsson, cf. Thráinsson and Árnason 1992, Árnason and Thráinsson 2003).
- 2. Survey of a new syntactic construction** in Icelandic (the **New Passive**): An acceptability study (1999), using written questionnaires. Some 1700 teenagers from all parts of the country, plus 200 adults. (PIs Sigríður Sigurjónsdóttir and Joan Maling, cf. Maling and Sigurjónsdóttir 2002).



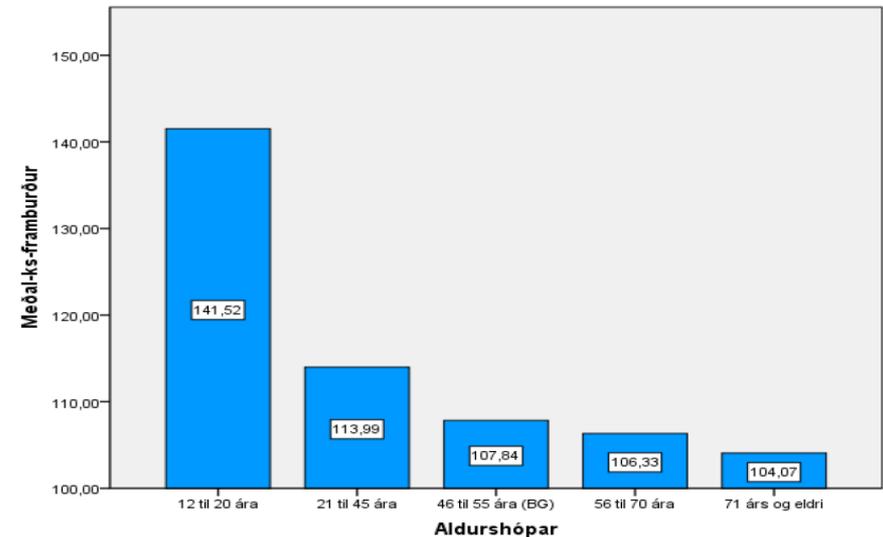
Four Projects ..., 2

- 3. Variation in Icelandic syntax** (IceDiaSyn, 2005–2008), connected to similar projects in Scandinavia. An extensive survey, mainly using written questionnaires but also interviews, texts etc. Approx. 3 x 700 speakers, different age groups, different parts of the country. (PI Höskuldur Thráinsson, cf. e.g. Thráinsson et al. 2007, Thráinsson forthcoming.). Included a detailed overview of the **New Passive** in different age groups (cf. project 2).
- 4. Real time change** in Icelandic phonology and syntax (**Raun**, 2010–2012): Mostly a **panel study** reinterviewing /-testing subjects that participated in projects 1 and 2. (More information below.)

(Apparent) Evidence for Linguistic Change in Apparent-Time



*Fig. 3: Voiced sonorants before /p,t,k/
Correlation w. age: $r = 0.385$, $p < 0,001$
N>300 (area in Northeastern Icel., cf. below)*



*Fig. 4: ks-pronunciation
Correl. w. age: $r = -0.422$, $p < 0.001$
N>2.800 (the whole country)*

- 100 = the phonological feature **never** occurred in the subjects' speech sample.
- 200 = the phonological feature **always** occurred where possible in the subjects' speech sample

Apparent-Time, 2

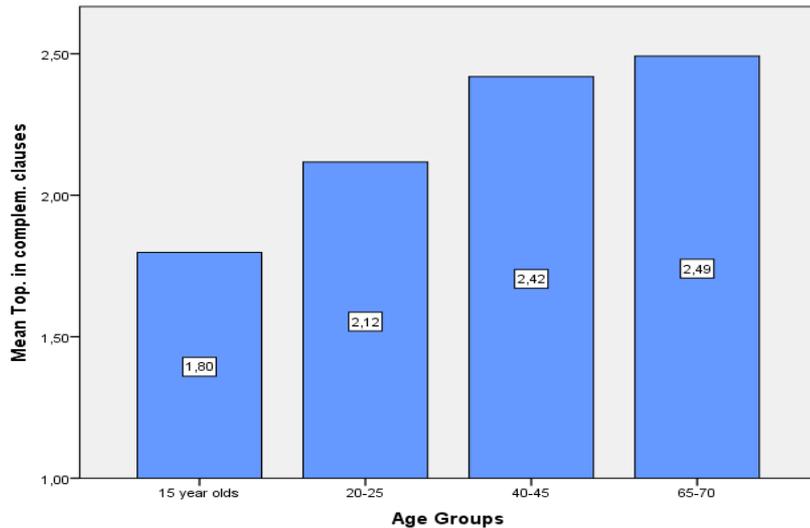


Fig. 5: Topicalization in compl. clauses.
Correl. w. age: $r = 0.466$, $p < 0.001$
 $N > 700$

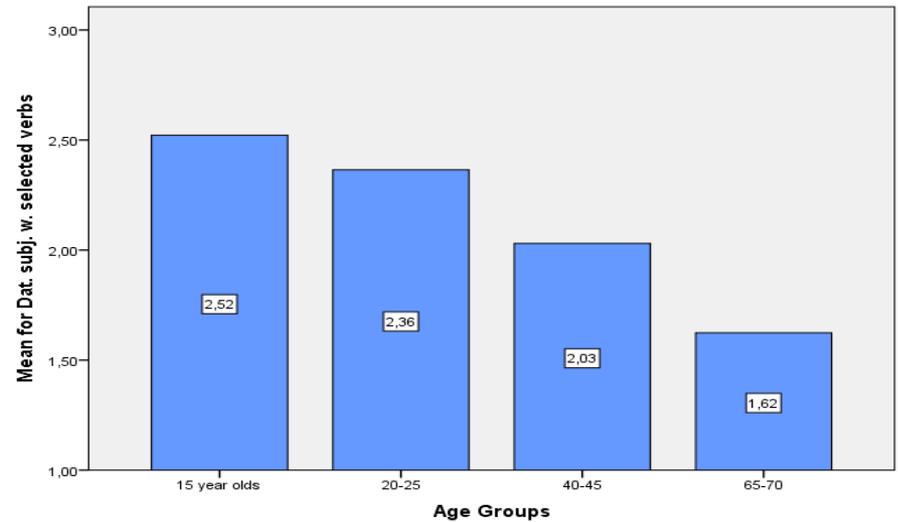


Fig. 6: "Dative sickness" w. selected verbs.
Correl. w. age: $r = -0.511$, $p < 0.001$,
 $N > 740$

- Data from judgment tasks. 1 = the construction rejected, 3 = the construction accepted (cf. below — note that the values 1 and 3 are sometimes be reversed, but that will be made clear!)

Apparent-Time, 3

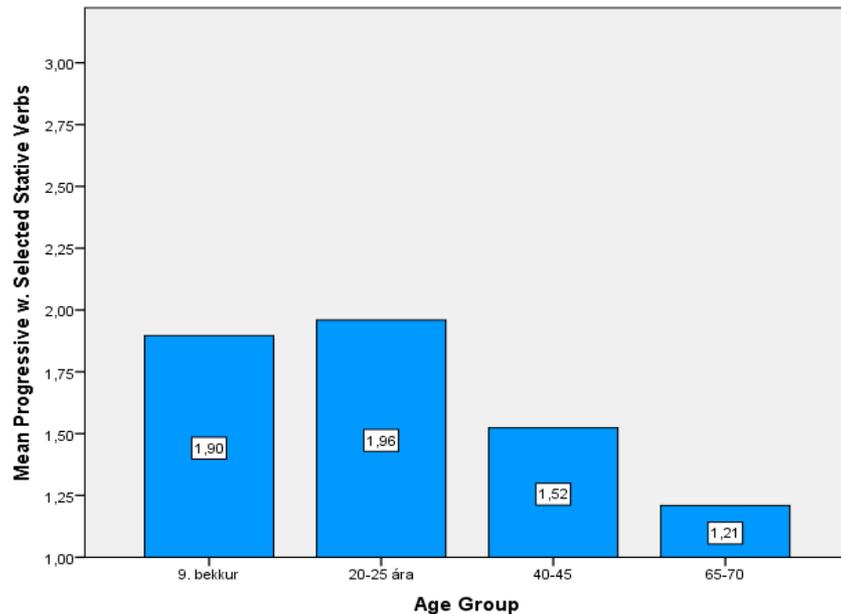


Fig. 7: Extended Progressive (to stat. vbs.).
Correlation w. age: $r = -0.442$, $p < 0.001$.
 $N > 700$

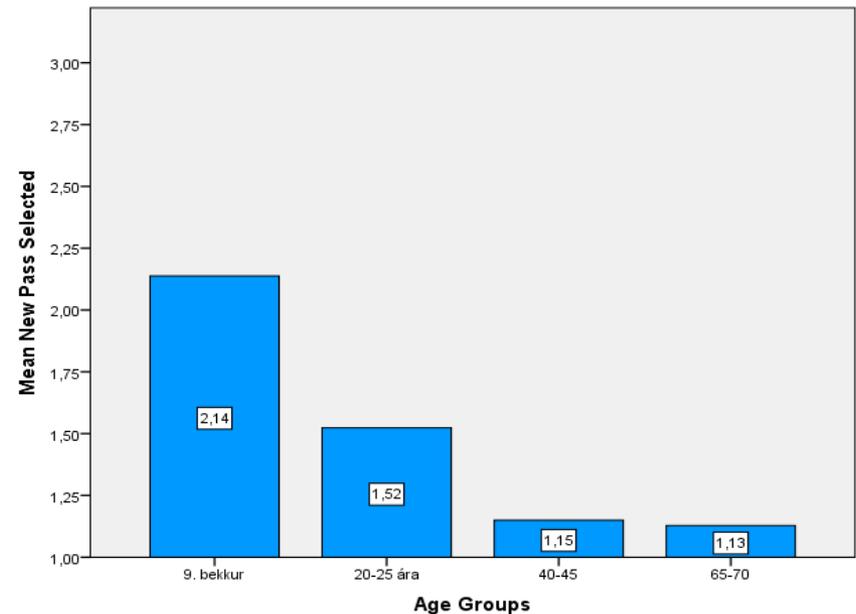


Fig. 8: The New Passive.
Correl. w. age: $r = -0.642$, $p < 0.001$.
 $N > 720$

Judgment tasks (cf. below. Data from the variation study (Project 3 on slide 25).

Apparent-Time, 4

Could *figs. 3–4* represent **age-grading** rather than linguistic **change in apparent-time**? What would that mean?

- Fig. 3:* **Voiced sonorants** before /p,t,k/ (e.g. *mjól***k** ‘milk’) would then be something that speakers gradually develop.
- Fig. 4:* **ks-pronunciation** (e.g. *vaxa* ‘grow’) would be a “habit” that speakers “outgrow” (cf. Thráinsson and Árnason 1992, Árnason and Thráinsson 2003).
- Fig. 5:* **Topicalization** in embedded clauses (“... that **this song** could he not sing”) would be something that speakers gradually develop (cf. Angantýsson 2011 on emb. Top.).
- Figs. 6–8:* **“Dative Sickness”** (**me** (D) needs money’), the **Extended Progressive** (“I’m not understanding this”) and the **New Passive** (“There was pushed me”) would be “habits” that speakers “outgrow” (see e.g. Thráinsson 2007, forthcoming; Maling and Sigurjónsdóttir 2002;

Is this likely? Is this impossible? How can we study this?



Evidence for Linguistic Change in Real-Time

More information on the **Real-Time Project** (Project 4 above):

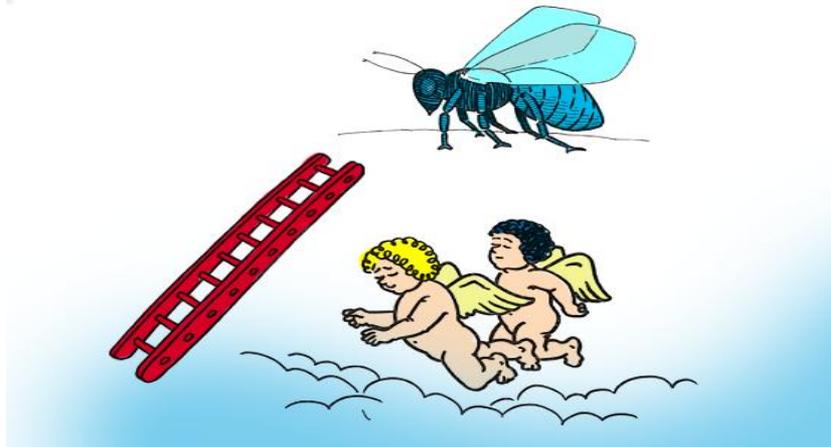
- In the **phonological part** we are:
 1. **Reinterviewing some 700 speakers** who participated in a phonological project in the 1980s (Project 1 above). Approx. 200 of these also participated in an earlier study in the 1940s (and had “stayed at home”).
 2. **Interviewing some 100 speakers** who participated in the 1940s-study and moved to “the city” (Reykjavík).
- In the **syntactic part** we are:

Retesting some 200 speakers who participated in the original study of the New Passive some 12 years ago (Project 2 above).

Real-Time, 2

Methodology of the phonological part:

1. **Interviews** centering around selected pictures to elicit particular words (speech sounds, clusters ...):



2. **Reading** of short passages.

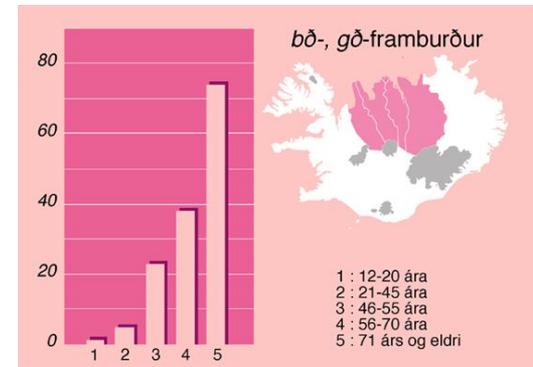
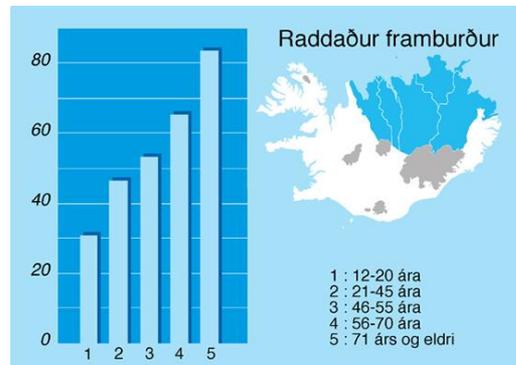
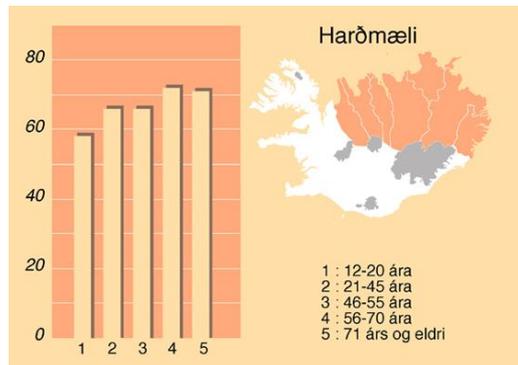
Purpose of methodology: To **maximize comparability** of the data.

Real-Time, 3

An example: Three regional phonological features:

- “**Hard** pronunciation”: Aspirated (vs. unaspirated, voiceless) /p,t,k/ after long vowels: *api* ‘ape’, *bátur* ‘boat’, *kaka* ‘cake’.
- “**Voiced** pronunciation”: Voiced (vs. voiceless) /l,m,n/ before /p,t,k/: *mjólk* ‘milk’, *lampi* ‘lamp’, *banki* ‘bank’
- “**bð/gð**-pronunciation”: Stops (vs. voiced fricatives) before /ð/: *hafði* ‘had’, *sagði* ‘said’.

Distribution of these features in the 1980s (RÍN, Proj. 1)





Real-Time, 4

Question:

- Are the regional phonological features just illustrated retreating because the **new generations do not acquire them** or are the **speakers in the region gradually giving them up** (cf. the main question: “How do languages change?”).

Real-Time, 5

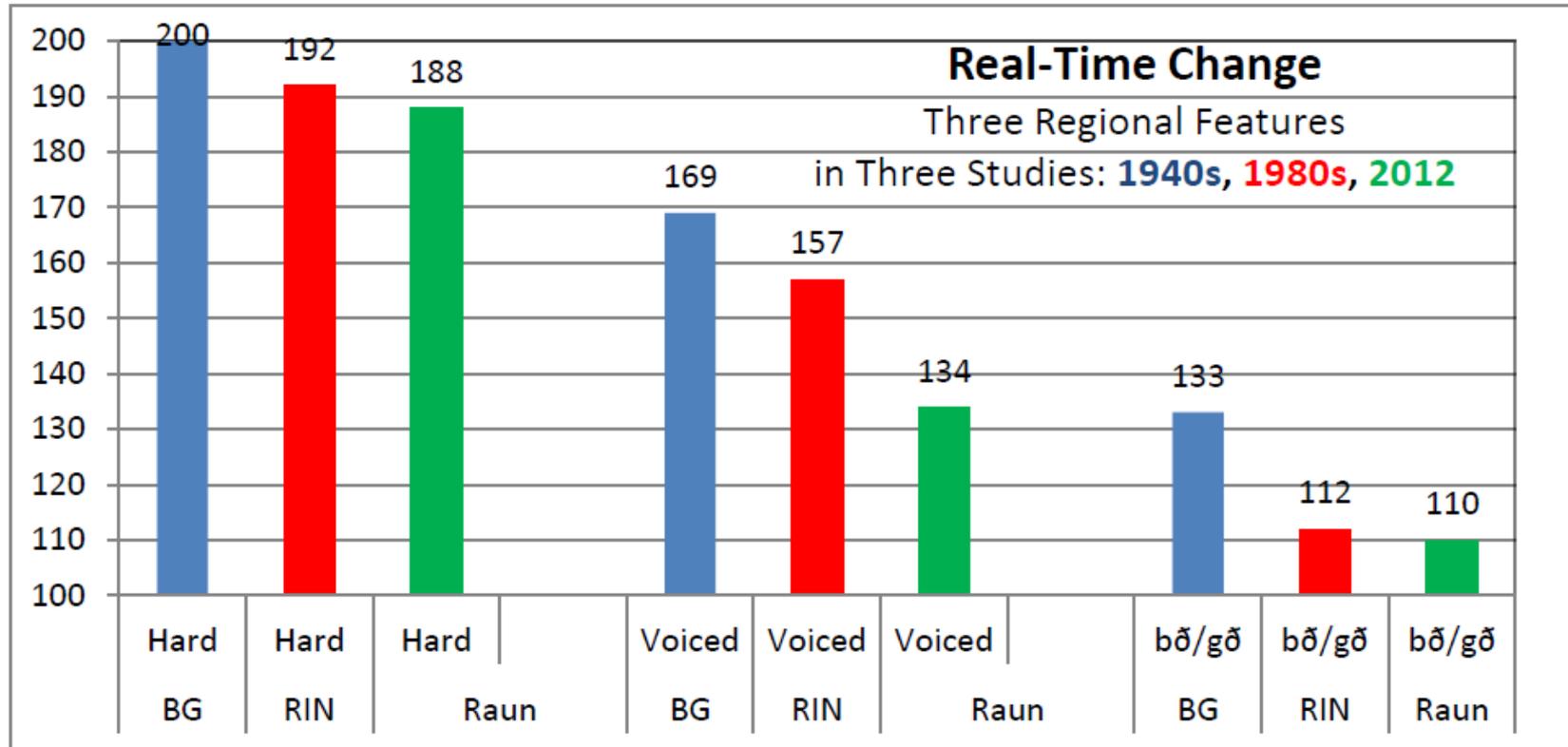


Fig. 9: The development of three regional features (means) in the speech of 15 speakers, tested three times over the period of 70 years.

Real-Time, 6

Comments on *fig. 9*:

- The **social conditions** were virtually identical in the three studies. The speakers had not moved and were interviewed at home. Hence the changes **may not be “reversible”**.
- The features are **all regional**, although the “hard pronunciation” is somewhat more widespread than the others and perhaps more highly regarded by some (although not a part of “the standard Reykjavík dialect”).
- The regional features are **structurally different**, e.g.:
 1. Arguably, everybody has some kind of a “devoicing rule” for sonorants. , e.g. /r/ before /p,t,k,s/ and /l/ before /t/. Hence diffusion may involve “rule generalization” (cf. Thráinsson 1980).
 2. The *bð/gð*-pronunciation only involves a rather **limited set of words** and the stops alternate within paradigms with voiced fricatives in many instances.

Real-Time, 7

An additional question:

- Are **younger speakers** more likely than **older ones** to “change their pronunciation” (cf. Víðisdóttir 2011)?

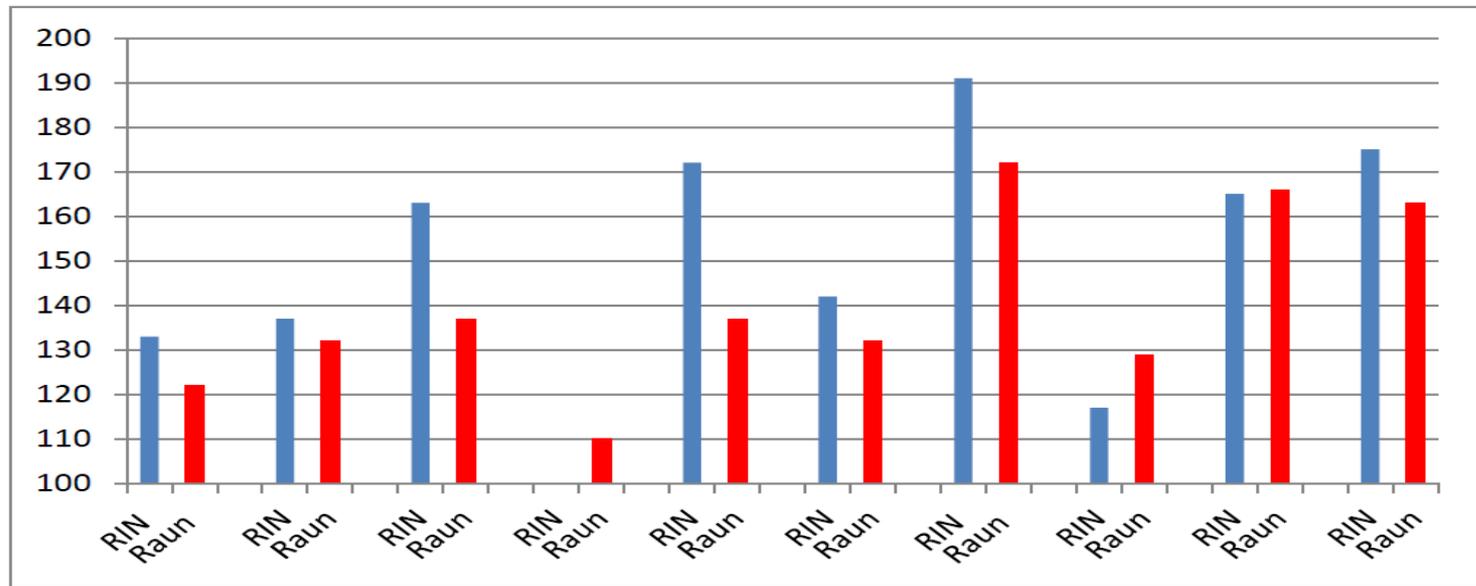


Fig. 10: The development of voiced pronunciation from the **1980s (RÍN)** to **2010 (Raun)**. **Older group** (10 speakers who were over 50 in RÍN). Means 150 vs. 140 (difference 10).

Real-Time, 8

Change in voiced pronunciation among younger speakers:

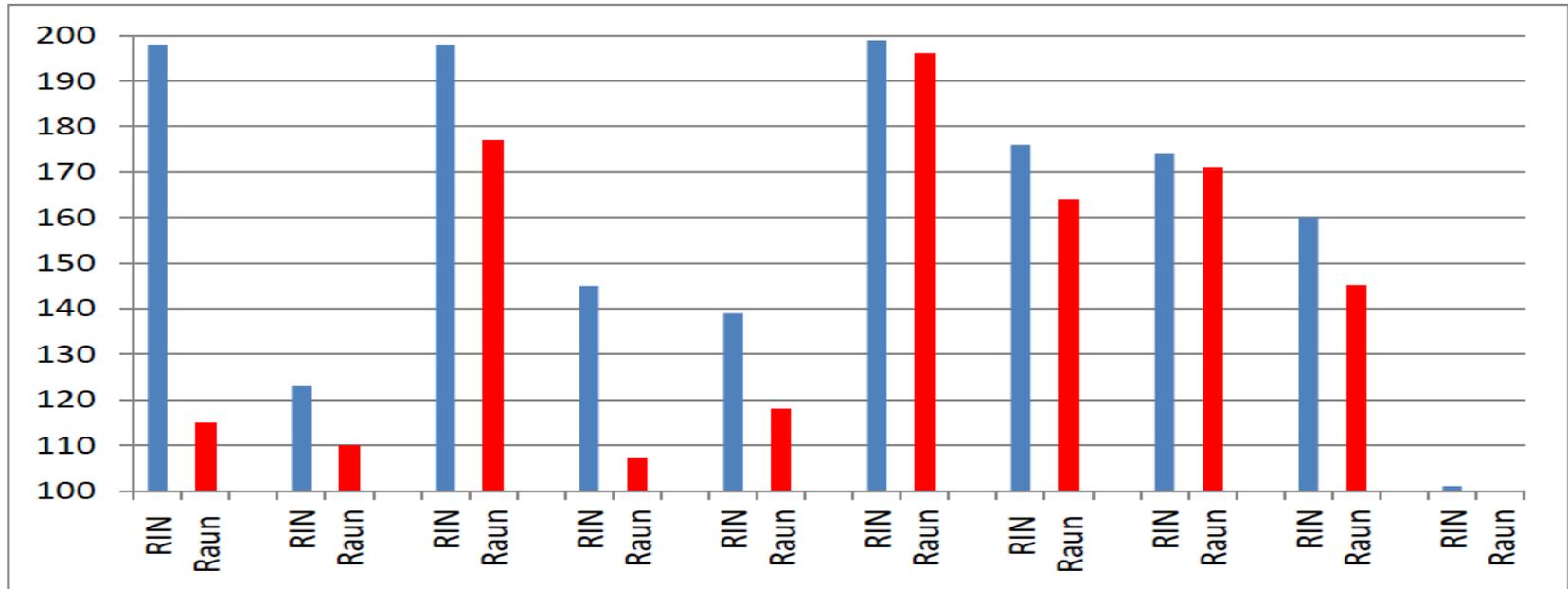


Fig. 10: The development of voiced pronunciation from the **1980s (RÍN)** to **2010 (Raun)**. **Younger** group (10 speakers who were under 50 in RÍN). Means 160 vs. 140 (difference 20).

Real-Time, 9

A final question on the phonology:

- Are **speakers who moved out of the dialectal area** more likely to “change their pronunciation” than those who stayed behind (cf. Höskuldsdóttir 2012)?

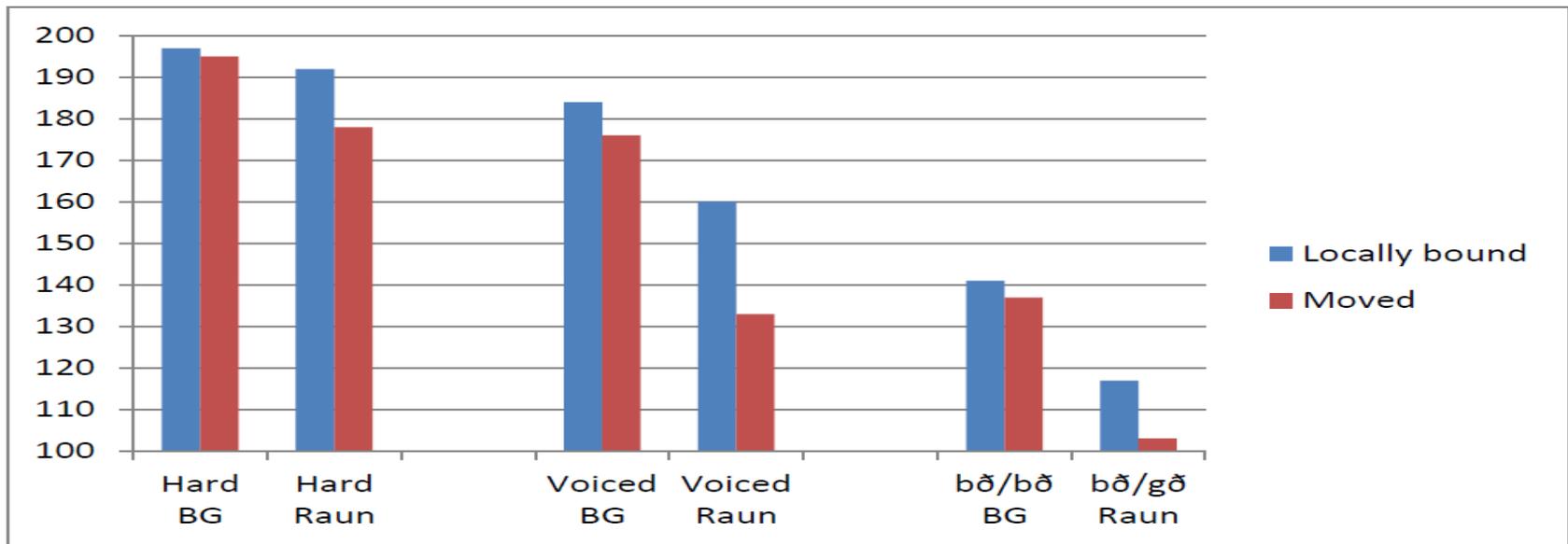


Fig.11: Development of three regional features from the 1940s to 2011. A group of 36 speakers who moved vs. 41 who did not.

Real-Time, 10

Methodology of the syntactic part: Most importantly a **judgment task**, using a written questionnaire. Illustration (the Nw Passive, English glosses were not included!)

Settu X í viðeigandi dálk:

‘Put an X in the appropriate column.’

já	=	Eðlileg setning. Svona get ég vel sagt.
‘yes’		‘Natural sentence. I could easily say this.’
?	=	Vafasöm setning. Ég myndi varla segja svona.
		‘Doubtful sentence. I could hardly say this.’
nei	=	Ótæk setning. Svona get ég ekki sagt.
‘No’		‘Impossible sentence. I could not say this.’

		já	?	nei	Athugasemdir ‘Comments’
V76	Ég get ekki komið í kvöld. ‘I cannot come tonight.’ Það var beðið mig að passa krakkana. ‘There was asked me to look-after the children’				

Real-Time, 12

The New Passive was only noticed quite recently and it was typically **rejected by the adults** in the original study by Maling & Sigurjónsdóttir 1999 (M&S, Project 2 on slide 25 above). We got comparable results in IceDiaSyn (Project 3), cf. below:

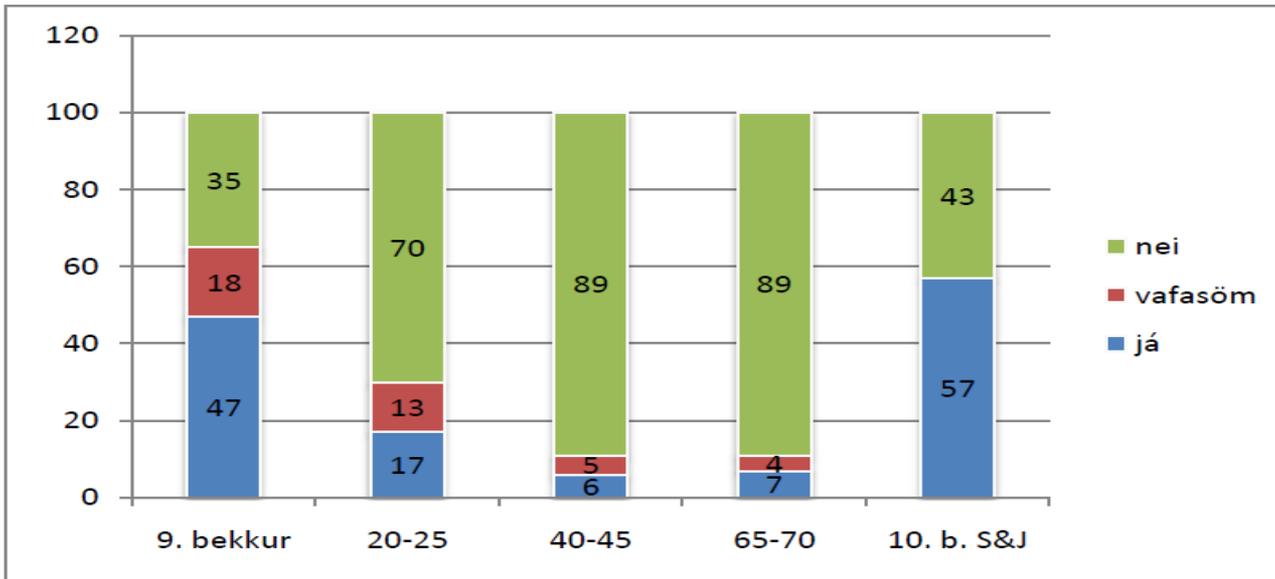


Fig. 12: Preliminary comparison of the results of IceDiaSyn 2005 (first 4 columns) and M&S 1999.



Real-Time, 12

Two points on the comparison of IceDiaSyn and M&S:

- This construction **does not seem to spread** to older generations (no **diffusion**?)
- One might have expected **greater acceptance by the 20–25** year olds in IceDiaSyn since this is partially the same generation as the one tested by M&S. Do speakers outgrow this?

So we did a **Real-Time study** (the syntactic part of Project 4):

- **96 speakers** who were “tested” by Maling and Sigurjónsdóttir 1999 and “retested” 2010–2012. They come from different parts of the country (approx. half from Reykjavík).
- **8 typical “New Passive” examples** tested in exactly the same way (except that context sentences were included this time). In the part reported on here, the subjects could only answer “yes” and “no” (no “?”).



Real-Time, 13

Preliminary results of this ongoing study:

- Most speakers are **somewhat more critical** of the sentences now (2010–2012) than before. (Only two out of 96 get a slightly more positive score this time around.) So this innovation **does not seem to diffuse** (as opposed to, say, the “extended progressive” in *fig. 7*).
- Still, the speakers **do not outgrow this habit**. The “mean score” for the group is 2.57 now and was 1.99 in M&J’s study (where 3 = rejects everything and 1 = accepts everything).
- There is a **strong correlation** between the judgments of the individuals in the two studies ($r = 0.630$, $p < 0.001$).

So: All variants / dialectal features are not equal. Some are more “diffusable” than others.



References

- Andersen, Henning. 1973. Abductive and Deductive Change. *Language* 49:765–793.
- Anderson, Stephen R., and David Lightfoot. 2002. *The Language Organ: Linguistics as a Cognitive Psychology*. Cambridge University Press, Cambridge.
- Angantýsson, Ásgrímur. 2011. *The Syntax of Embedded Clauses in Icelandic and Related Languages*. PhD dissertation, University of Iceland, Reykjavík.
- Árnason, Kristján, and Höskuldur Thráinsson. 2003. Fonologiske dialekttræk på Island. Generationer og geografiske områder. In Gunnstein Akselberg, Anne Marit Bødal and Helge Sandøy (eds.): *Nordisk dialektologi*, pp. 151–196. Novus, Oslo.
- Benediktsson, Hreinn. 2002. The Vowel System of Icelandic: A Survey of Its History. In: Guðrún Thórhallsdóttir, Höskuldur Thráinsson, Jón G. Friðjónsson and Kjartan Ottosson (eds.): *Linguistic Studies, Historical and Comparative* by Hreinn Benediktsson, pp. 50–73. Linguistic Institute, University of Iceland, Reykjavík. [Originally published in *Word* 15:282–312, 1959.]



References, 2

- Chomsky, Noam. 1965. *Aspects of the Theory of Syntax*. MIT Press, Cambridge, Mass.
- Chomsky, Noam. 1986. *Knowledge of Language*. Its Nature, Origin and Use. Praeger, New York.
- Grace, George. Speaking of Language Change. *University of Hawaii Working Papers in Linguistics* 3:101–116.
- Guðmundsdóttir, Margrét. 2008. Málbreytingar í ljósi málkunnáttufræði. [‘Linguistic change in the light of generative grammar.’] *Íslenskt mál* 30:7–52.
- Hale, Mark. 2007. *Historical Linguistics: Theory and Method*. Blackwell, Oxford.
- Halle, Morris. 1962. Phonology in Generative Grammar. *Word* 18:54–72.
- Höskuldsdóttir, Margrét Lára. 2012. *Ertu nokkuð búin(n) að [tha:pha] þér?* Framburður Norðlendinga á Norðausturlandi og í Reykjavík á árunum 1940–2011. [‘Have you lost it? The pronunciation of Northerners in North-East Iceland and Reykjavík 1940–2011.’] BA-thesis, University of Iceland, Reykjavík.
- Isac, Daniela, and Charles Reiss. 2008. *I-Language*. An Introduction to Linguistics as Cognitive Science. Oxford University Press, Oxford.



References, 3

- Labov, William. 1963. The Social Motivation of a Sound Change. *Word* 19:273-309. [Cf. Chapter 1 of Labov 1972.]
- Labov, William. 1966. *The Social Stratification of English in New York City*. Center for Applied Linguistics, Washington D.C.
- Labov, William. 1972. *Sociolinguistic Patterns*. University of Pennsylvania Press, Philadelphia.
- Labov, William. 2001. *Principles of linguistic change. Volume I: Internal Factors*. 2nd edition [with a new preface; first ed. 1994]. Blackwell, Oxford.
- Lenneberg, Eric H. 1967. *The Biological Foundations of Language*. Wiley, New York.
- Lightfoot, David W. 1979. *Principles of Diachronic Syntax*. Cambridge University Press, Cambridge.
- Lightfoot, David W. 1999. *The Development of Language: Acquisition, Change, and Evolution*. Blackwell, Oxford.
- Lightfoot, David W. 2006. *How New Languages Emerge*. Cambridge University Press, Cambridge.
- Maling, Joan, and Sigríður Sigurjónsdóttir. 2002. The 'New Impersonal' Construction in Icelandic. *Journal of Comparative Germanic Linguistics* 5:97–142.



References, 4

- Sankoff, Gillian, and H el ene Blondeau. 2007. Language Change across the Lifespan: /r/ in Montreal French. *Language* 83:560–588.
- Thr ainsson, H oskuldur. 1980. Sonorant Devoicing at Lake M yv atn: A Change in Progress. In: Even Hovdhaugen (ed.): *The Nordic Languages and Modern Linguistics* [4], pp. 355–364. Universitetsforlaget, Oslo.
- Thr ainsson, H oskuldur. 2007. *The Syntax of Icelandic*. Cambridge University Press, Cambridge.
- Thr ainsson, H oskuldur. Forthcoming. Ideal Speakers and Other Speakers The case of dative and some other cases. In Beatriz Fern andez and Ricardo Etxepare (eds.): *Variation in datives: A Micro-Comparative Perspective*. Oxford Studies in Comparative Syntax, Oxford University Press, Oxford.
- Thr ainsson, H oskuldur,  sgr imur Angant ysson,  sta Svavarsd ottir, Th orhallur Eyth orsson and J ohannes G isli J onsson. 2007. The Icelandic (Pilot) Project in ScanDiaSyn. *Nordlyd* 34,1: 87-124. Special issue on Scandinavian Dialect Syntax 2005.
- Thr ainsson, H oskuldur, and Kristj an  rnason. 1992. Phonological Variation in 20th Century Icelandic. * slenskt m l* 14:89–128.



References, 5

- Víðisdóttir, Katrín María. 2011. *Þá og nú*. Um einstaklingspróun á mállýskum á Norðurlandi frá níunda áratugnum þar til nú. [‘Then and Now. On the development of regional Northern features in the speech of individuals from the 1980s until now.’] BA-thesis, University of Iceland, Reykjavík.
- Weinreich, Uriel, William Labov and Marvin Herzog. 1968. Empirical Foundations for a Theory of Language Change. Winfred P. Lehmann and Yakov Malkiel (eds.): *Directions for Historical Linguistics*, bls. 95-188. University of Texas Press, Austin.