# Linguistic repertoires: modeling variation in input and production

#### A case study on American Speakers of Heritage Norwegian

### Kristin Melum Eide & Arnstein Hjelde



NTNU Norwegian University of Science and Technology



# Tracing the impact of specific types of input

# The role of input : quantity or quality?

What is crucial to maintain a Heritage Language? A certain amount of input, or a certain diversity in input sources? Meisel (2020): Quantity! There is a necessary minimum, but one parent may be enough. Gollan et al. (2015): Diversity in input sources gives a more robust HL, a more diverse vocabulary, easier retrieval, more relevant contexts, more opportunities to speak the language.

#### Possessives in Norwegian

Norwegian has prenominal and postnominal possessives.



Postnominal (double definiteness) *huset mitt* house.DEF.NEUT my.NEUT

Prenominal (similar to English) *mitt hus* my.NEUT house.INDEF.NEUT

#### They distribute very differently across written and spoken contexts

#### (Lødrup 2012)



Spoken register: 25% prenominal 75% postnominal



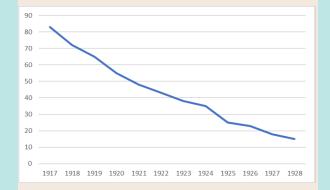
Written register: 78 %prenominal, 22% postnominal

Can we use these different ratios to measure the impact of written input in the HL?

# Written and formal oral input

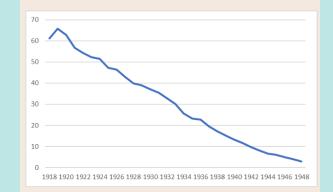


PAROCHIAL SCHOOLS instructed in Norwegian





LUTHERAN CHURCH SERVICES in Norwegian





liserer sin Stridsmagt. Berlin paggar. - Ungirende Son enetis fra Aitler rollt Korriber ginferend mit Gride ernban illt ogin polit Korriber ginferend mit Griftan, irrend ban - Cangada mögletter fig hette Kann - Derette beit ret - Rusland fies af he mobilijert mellen 200,000 Mereli.

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gstilbud fra Paven og Italiens Konge.

Katalandi Kat

#### SECULAR NEWSPAPERS in Norwegian



Location/ Source	Blair	Coon Valley/Westby	Wannamingo	Zumbrota	Hours recorded
1942: Haugen	Х	Х			8
1930-40s: Haugen: CANS	Х				
1987: Hjelde			Х	Х	6
1992: Hjelde		Х			75
2010: Eide/Hjelde	Х	Х			10
2010-2014: CANS		Х			12
2015-2018: Hjelde		Х			158
Field notes: Haugen, Hjelde	Х	Х	Х	Х	

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#### Table 1. The data sets used in this study

Table 2. Generational cohorts and data					
Cohort	Ι	II	III	IV	V
Born	Around 1870	1900-1920	1920-1930	1940-1950	after 1950
Data sets	Haugen	Haugen	Hjelde	CANS	CANS
	1940s	1940s	1980s	Eide/Hjelde	Hjelde
			& 1990s	2010	2010-2018
	Haugen	1900-1920 Haugen	1920-1930 Hjelde 1980s	1940-1950 CANS Eide/Hjelde	after 1950 CANS Hjelde

DATA

Recordings	Prenominal possessive percentage		
1930s and 1940s (Haugen)	23 %		
1942 Coon Valley/ Westby (Haugen)	) 13 %		
1980s and 1990s (Hjelde)	12 %		
2010s (CANS-project)	5 %		

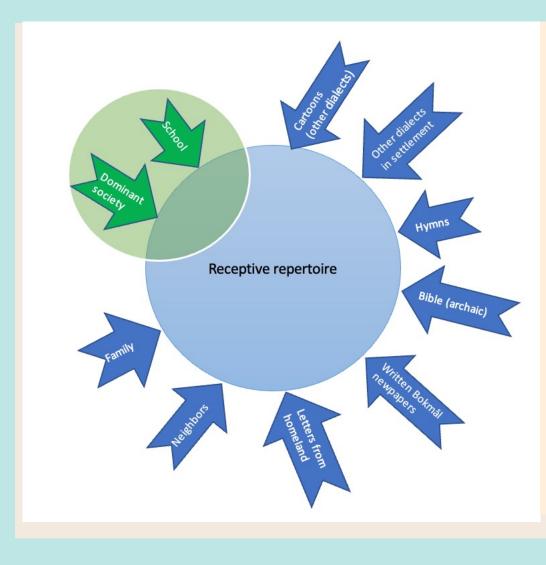
Recordings		Generational cohort	Prenominal possessive	Postnominal possessive
<b>1940s</b>		I-II	23 %	77 %
1990s		III	7 %	93 %
2010s	Including outlier Per	III-V	13 %	87 %
2010s	Excluding outlier Per	III-V	5 %	95 %
2010s	outlier Per	III-V	89 %	11 %

# The impact of outliers

Recordings		Generational cohort	Prenominal possessive	Postnominal possessive
1940s		I-II	23 %	77 %
1990s		III	7 %	93 %
20106	Including outlier Per	III-V	13 %	87 %
20106	Excluding outlier Per	III-V	5%	95 %
2010s	outlier Per	III-V	89 %	11 %

#### **Informant Per**

- Produces prenominal possessives in 89 percent of the instances.
- His peers: 5 percent prenominal possessives on average.
- Per volunteers the information that he gets almost all his Norwegian input from written texts, which is clearly mirrored in his oral production.



HELLIGET VORDE DIT NAVN, HOLY.MADE BE.SUBJ. YOUR NAME 'HALLOWED BE THY NAME.'

KOMME DIT RIKE. COME.SUBJ YOUR KINGDOM 'THY KINGDOM COME.'

I EVIGHET VÆR HOS OSS, IN ETERNITY BE WITH US

OG VÅR SJÆL BERED, AND OUR SOUL PREPARE

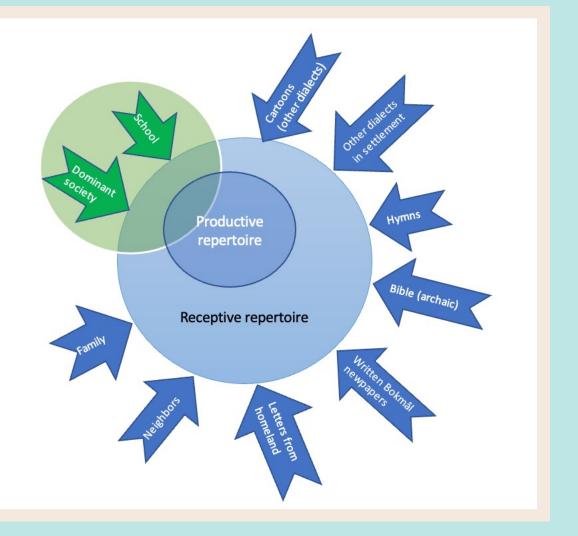
'BE WITH US IN ETERNITY AND PREPARE OUR SOUL'

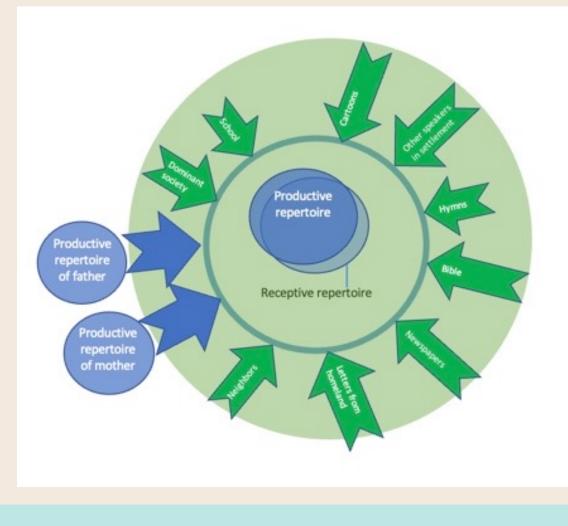
AT GUD VI SØKE, NÅDE FÅ THAT GOD WE SEEK, MERCY RECEIVE 'THAT WE SEEK GOD, RECEIVE MERCY'

I VÅRE SYNDER LA OSS EI FORGÅ IN OUR SINS LET US NOT PERISH 'DO NOT LET US PERISH IN OUR SINS' Nå går vi ferbi hår je vaks opp Now walk we past where I grew up 'Now let's walk past the place where I grew up.'

Der dem lagar vin there they make wine 'There they make wine'

[E]very human being speaks a variety of languages. We sometimes call them different styles or dialects, but they are really different languages, and somehow, we know when to use them, one in one place and another in another place. Now each of these different languages involves a different ["grammar"]. Chomsky (2001: 187)





- Individual choices of the parent generation accumulate over time.
- As the different input sources vane, there is no way to balance out the choices of the parent generation.
- The productive repertoires of the parents become the single source of input.
- Nothing can enter into the receptive repertoire if it is not part of the input.
- If it is not part of the receptive repertoire, it is not part of the person's (heritage) language.