

The prosody of Swabian pronouns: strong and weak forms at the interfaces

Tina Bögel

University of Konstanz / UMASS

Frankfurt, 19.05.2021

The first person singular nominative pronoun (1SgNom)

- Morphosyntactic features:

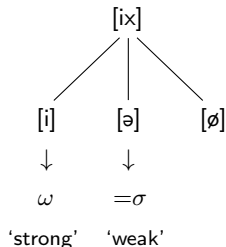
PERSON	=	1
CASE	=	nom
NUMBER	=	singular

- Representations:

→ Standard German ('ich'):

→ Swabian:

⇒ Common distinction:



- Complementary distribution: Based on sentence position and focus structure

Function words, 'lexical' words, and acoustic salience

Only a few 100 function words, but highly frequent

- Cutler and Carter (1987): 59% of tokens were function words
 - 14% of all strong syllables
 - 72% of all weak syllables
 - Jurafsky et al. (2001): highly frequent/predictable function words more likely to be acoustically reduced
 - ... Bell et al. (2009) found the same to be true for 'lexical' words
- Function words are more likely to be acoustically reduced
- ... but not all of them
 - ... and not exclusively them
- ⇒ Points towards a more gradient prosodic representation of function words and 'lexical' words

Problem for theoretical linguistics

Weak and strong forms, accented function words ...

- Different prosodic realisations are problematic for currently dominant theory of the syntax–prosody interface
- Match Theory (Selkirk 2011)
 1. syntactic clause \longleftrightarrow intonational phrase (MATCH-CLAUSE, ι)
 2. syntactic phrase \longleftrightarrow phonological phrase (MATCH-PHRASE, φ)
 3. lexical word \longleftrightarrow prosodic word (MATCH-WORD, ω)
- Function words: traditionally ignored by the mapping algorithm:

Lexical Category Condition (LCC): Constraints relating syntactic and prosodic categories apply to lexical syntactic elements and their projections, but not to functional elements and their projections, or to empty syntactic elements and their projections. (Truckenbrodt 1999, 226)
- The difference between the two categories is established based on syntactic terminal nodes (e.g., ('lexical') N, V, A vs. (functional) P, D)

This talk

1. Corpus studies → establish distributional patterns
 - a) Written Swabian: dialect version of two Asterix comics
 - b) Spoken Swabian: Swabian speakers from the Zwirner corpus
2. An alternative approach to the MATCH-WORD constraint

Written Swabian: Asterix

- Dialect translation of two Asterix comics (Uderzo and Goscinny 2017). Swabian by Klaus Mühlsteffen.

→ *Asterix and the great divide*

→ *Asterix and the magic carpet*



- The 1SgNom pronoun forms are clearly differentiated: 'i' and 'e' ([ə])



Written Swabian: Asterix

Two factors:

a) Position in the clause: initial or non-initial;

⇒ Results:

Form	Initial	Non-initial	Total
[i]	163	50	213
[ə]	0	89	89
Total:			302

→ [ə] as an *enclitic* is banned from initial positions

→ [i] occurs in both positions, but less so in the non-initial

→ Both forms can occur in the final position

Question: What is the difference between [i] and [ə] in the non-initial position?

Written Swabian: Asterix

- b) Information structure status: focussed or unfocussed
(as determined by focus particles, syntactic structure, or context)
- Focus particle:** *ausgerechnet* (here: 'of.all.people')
Context: Obelix is being denied the magic potion
 Warum ausgerechnet i net?
 Why of.all.people I.1SG.NOM not
 'Why not me, of all people?' (Uderzo and Gosciny 2017, 27)
 - Syntactic structure:** Marked declarative V1-construction
Context: The faqir drank too much wine and has a hang-over as a consequence
Han i en Durscht!
 have.PRS.1SG I.1SG.NOM a.M.ACC thirst
 'I am (so) thirsty.' (Uderzo and Gosciny 2017, 70)
 - Context:** *Impedimenta/Gutemine, the chief's wife, and Mrs. Geriatrix/Methusalix are fighting over a carpet they found between their houses. When Impedimenta runs out of arguments as to why the carpet should belong to her, she yells:*
 ... ond außerdem ben i 's Weib vom Chef!
 ... and besides be.1SG.PRS I.1SG.NOM =the.N.NOM wife of.the chief
 'And besides, I am the chief's wife!' (Uderzo and Gosciny 2017, 55)

Written Swabian: Asterix

In contrast, the weak form is used in unfocused positions

4. *Context: During travelling, the faqir is wondering whether the direction is still right, so he tells his companions that he will ask*

... ob =ə no uf am rechta Weg be
 ... if I.1SG.NOM still on the.M.DAT right way be.1SG.PRS
 '... if I am still on the right way.'

(Uderzo and Goscinny 2017, 61)

5. *Context: Codfix/Greulix just uttered a saying about being patient He then turns towards the audience/the readers and says: 'I bet you are astonished ...'*

... wo =ə des wieder her han
 ... where I.1SG.NOM that again from have.1SG.PRS
 '... where I got that from.'

(Uderzo and Goscinny 2017, 15)



→ The use of [i] would imply a contrastive context in both examples

Spoken Swabian: data from the Zwirner Corpus

- Collection of interviews documenting dialectal variation in Germany in the 1950s and 1960s
 - Swabian part of the corpus: roughly 34 speakers
 - For this study:
 - 13 speakers
 - between 31 and 78 years old
 - small villages in different counties across the Swabian-speaking area
 - were born in the same area
 - The interviewer was the same in all the interviews
- native speaker of Swabian
- only prompting the speakers
- Topics: general life in the villages, professions, traditions, stories from their youth
 - Duration: 4 hours, 6 minutes

Spoken Swabian: Method

- There are only recordings, no transcriptions
- Swabian: Play Sound
 - 6. I wois nõ gut wo e mein Besa an d' Grät nagschlagä hã
 I know still well when I my broom at the equipment there.hit have
 'I still remember well how I hit the equipment with my broom' (Sp. 175, 407s)
- In order to find all occurrences of the pronoun:
 - Listen to all the data
 - Extract all sentences with the pronoun (via Praat)
 - Determine which form was used
 - if perception was non-ambiguous
 - if F2 reflected this in the spectrogram
 - ambiguous cases were discarded
 - Note down form, speaker, sentence ...

Spoken Swabian: Analysis

Prosodic analysis:

- Difficult, not controlled experimental data
- a lot of variation, many non-standard constructions
- only possible case by case
- Coarse-grained distinction:
 - a) *Prominent*: with pitch accent, rising pitch, or remaining at high level after previous accent
 - b) *Non-prominent*: fall, low-level pitch (that is no accent)

Spoken Swabian: Results

Form	Initial	Non-initial		Total
		prominent	not prominent	
[i]	89	50	17	156
[ə]	—	4	123	127
[∅]	—	—	—	9
				292
Discarded:				6

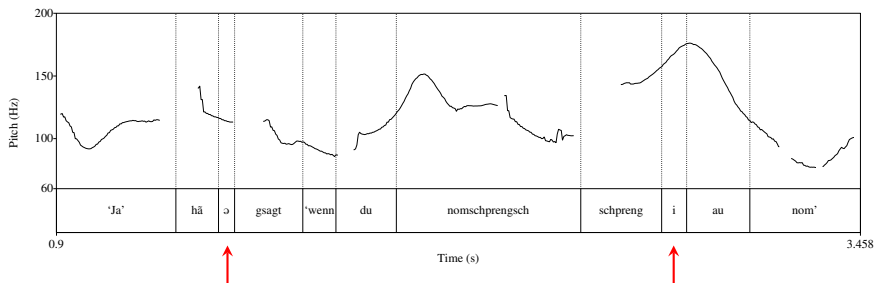
A straightforward example

7. Context: The speaker tells the story of how he and a school friend had a competition as to who would dare to jump over a box.

ja hã ə gsagt wenn du nom-schprengsch schpreng i au nom
 yes have I.1SG.NOM say.PTCP if you over-jump jump I.1SG.NOM also over
 ‘ “Yes”, I said, “if you jump over (that), I’ll jump over (that), too!” ’

Play Sound

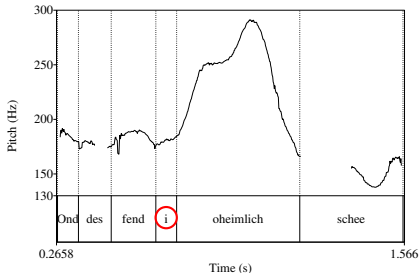
(Zwirner Corpus 2012, Sp 175, 667 s)



(Seemingly) problematic cases: [i]

8. ond des fend i oheimlich schee
 and this find.1SG.PRS I.1SG.NOM incredibly nice
 'And I find this incredibly nice.' (Zwirner Corpus 2012, Sp 174, 223 s)

Play Sound



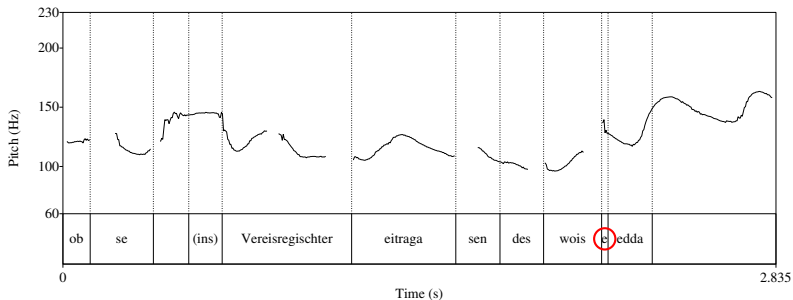
Context: *the speaker laments that the girls of today's generation no longer bond as closely as the girls did in the speaker's generation. She loves the fact that she is still best friends with all of her childhood friends.*

(Seemingly) problematic cases: [ə]

9. ob se ins Vereinsregischer eitraga sen des wois ə edda
 whether they in club register entered are that know I.1SG.NOM not
 'Whether they are entered into the club register, that I don't know.'

Play Sound

(Zwirner Corpus 2012, Sp 166, 688 s)



- [ə] immediately follows a low pitch accent and ends up on the following high tone. But: no focus on [ə].

And the pronoun drop?

→ Occurs mostly after the finite auxiliary verb in participle constructions

10. na (hã) ø mə au nō freiwillig gmeldt
 then have I.1SG.NOM myself..1SG.ACC.REFL also even voluntary sign.up.PTCP
 'And then I even signed myself up voluntarily'

Play Sound

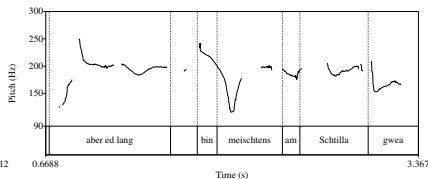
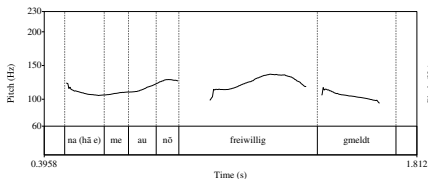
(Zwirner Corpus 2012, Sp 173, 170 s)

→ Can also be found in the initial position of a clause

11. ø bin meischtens am Schtilla gwea
 I.1SG.NOM be.1SG.PRES mostly at breastfeeding been.PTCP
 '(But I wasn't (working) for long) - I was mostly busy breastfeeding.'

Play Sound

(Zwirner Corpus 2012, Sp 96, 48 s)



⇒ In these constructions, the pronoun is always highly predictable!

Some intermediate thoughts

These findings fit very well with the idea of an inverse relationship between frequency/predictability and acoustic salience:

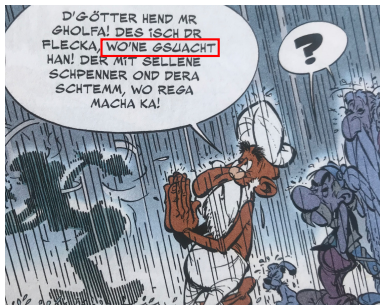
- If pronoun is in focus/not predictable: acoustically salient [i]
- If pronoun is not in focus/predictable: acoustically reduced [ə]
- If pronoun is highly predictable: optional pronoun drop [∅]

The prosodic phrasing of the pronouns

(segmental) *n*-insertion offers interesting insights into prosodic phrasing.

- Used to avoid a vowel hiatus: $V-n-V$
- Optional
- Occurrences found in both, written and spoken Swabian:

Corpus	#
spoken	6
written	6



Prosodic phrasing and n -insertion

- 12a. Cannot occur between two full prosodic words: $*\omega-n-\omega$

*dass Kai -n- Ann sieht
 that Kai.3SG.F.NOM -n- Ann.3SG.F.ACC see.3SG.PRS
 '...that Kai sees Ann.'

- 12b. Cannot occur between two clitics: $*=\sigma-n-=\sigma$

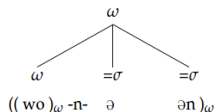
*wo =ə -n- =ən seh
 where I.1SG.NOM -n- he.3SG.M.ACC see.1SG.PRS
 '... where I see him.'

- 12c. Can only occur between a clitic and a prosodic word: $\checkmark \omega-n-=\sigma$

(wo)_ω -n- =ə =ən seh
 where -n- I.1SG.NOM he.3SG.M.ACC see.1SG.PRS
 '... where I see him.'

- 12d. I.e., at a single left or right prosodic word boundary

(seh)_ω -n- =ə =ən
 see.1SG.PRS -n- I.1SG.NOM he.3SG.M.ACC
 '... I see him.'



Summing up

The first singular nominative pronoun's form is determined by

- linear position in the clause
- focus structure

The prosodic representations are

- i → prosodic word: can occur in all positions, can carry a pitch accent, can be host to other clitics
- e → enclitic: attaches to the host in a recursive prosodic word, cannot occur under focus

Back to theory ...

An example: (*I don't know*) where I saw her

1.	English:	where	I	her	seen	have
2.	German:	wo	ich	sie	gesehen	habe
3.	Swabian:	wo	ə	sə	gsea	han
4.	Syntax:	D	D	D	V	I
5.	Predicted:				$(V)_\omega$	
6.	Reality:	$((D)_\omega$	=D	=D) $_\omega$	$(V)_\omega$?

Question: How do I get from the predicted pattern to the actual pattern?

- a) Only 'lexical' words map to prosodic words
 - Can discard that
- b) All syntactic words map to prosodic words
 - Can discard that as well
- ⇒ Both solutions are too uninformative for any post-syntactic markedness constraints/prosodic restructuring/postlexical phonology in the phonological module/ ...

Possible solution

- detach MATCH-WORD from the interface between syntax and prosody
- move process to the level of the 'lexicon'/'vocabulary insertion' ...

Levelt et al. (1999)'s mental representation of a word:

- concept (semantics; not further discussed here)
- morphosyntactic form (s-form)
- phonological form (p-form)
 - a) segments
 - b) metrical frame
 → (number of syllables, prosodic status(!))

s-form			p-form		
ich	D	NUM = sg	[i]	SEGMENTS	/i/
		PERS = 1		METR. FRAME	('σ) _ω
		CASE = nom	-----		
		PRON = pers	[ə]	SEGMENTS	/ə/
		...	METR. FRAME	=σ	
		...	¬(↑ _i FOCUS)		
Schwäbin	N	NUM = sg	[ʃvɛ:bin]	SEGMENTS	/ʃ v ɛ b i n/
		PERS = 3		METR. FRAME	('σσ) _ω

Possible solution II

MATCH-WORD: match s-form with p-form (and vice versa)

...
3.	Swabian:	wo	ə	sə	gsea	han
4.	Syntax:	D	D	D	V	I
	Lexicon:	ω	$=\sigma$	$=\sigma$	ω	?
5.	Predicted:	$(D)_\omega$	$=D$	$=D$	$(V)_\omega$?
6.	Reality:	$((D)_\omega$	$=D$	$=D)_\omega$	$(V)_\omega$?

→ The creation of the nested prosodic word structure can then be left to the phonological module

References I

- Bell, Alan, Jason M. Brenier, Michelle Gregory, Cynthia Girand, and Dan Jurafsky. 2009. Predictability effects on durations of content and function words in conversational English. *Journal of Memory and Language* 60(1):92–111.
- Cutler, Anne and David M. Carter. 1987. The predominance of strong initial syllables in the English vocabulary. *Computer Speech and Language* 2(3/4):133–142.
- Jurafsky, Dan, Alan Bell, Michelle Gregory, and William Raymond. 2001. Probabilistic relations between words: Evidence from reduction in lexical production. In J. Bybee and P. Hopper, eds., *Frequency and the Emergence of Linguistic Structure*, pages 229–254. Amsterdam: John Benjamins.
- Levelt, Willem J.M., Ardi Roelofs, and Antje S. Meyer. 1999. A theory of lexical access in speech production. *Behavioral and Brain Sciences* 22:1–75.
- Selkirk, Elisabeth O. 2011. The syntax-phonology interface. In J. Goldsmith, J. Riggle, and A. Yu, eds., *The Handbook of Phonological Theory*, pages 435–484. Malden, MA: Blackwell.
- Truckenbrodt, Hubert. 1999. On the relation between syntactic phrases and phonological phrases. *Linguistic Inquiry* 30(2):219–255.
- Uderzo, Albert and René Goscinny. 2017. *Asterix schwätzt Schwäbisch – der große Mundart-Sammelband*. Berlin: Egmont Comic Collection. Translated by Gudrun Penndorf (German) and Klaus Mühlsteffen (Swabian).
- Zwirner Corpus. 2012. Collection of interviews with dialect speakers from Eberhard Zwirner from the 1950s and 1960s, made available by the IDS Mannheim, Datenbank für Gesprochenes Deutsch. <https://dgd.ids-mannheim.de/>.