

Situational (in)dependence and article choice

Evidence from Swiss German

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Background

- Swiss German has two definite articles: a full and a reduced version (in addition to a demonstrative).
- Swiss German has preposition-article **contraction** like Standard German investigated by Schwarz (2009).
- In addition, Swiss German shows reduced forms of the definite article in some more linguistic contexts, like Fering (Ebert, 1971, as in): Two sub-strategies of **reduction** in Germanic languages: consonant drop vs. vowel drop.
- Swiss German is not under-researched. There are two dissertations on Swiss German: Studler (2008) and Leu (2008).

Swiss German Article System

Definite Article Forms Weber (1964)

reduced	de Hund	d Hand	s Huus
full	de Hund	die Hand	das Huus
demonstrative	dää Hund	die Hand	daas Huus
	“the dog”	“the hand”	“the building”

Table: Article forms: Nom/Acc Sg.

- The demonstrative use comes with an accent. The full article does not. The reduced form may undergo assimilation to the following consonant: Sandhi.

Swiss German Article System: **the woman**

Zurich German: **Sandhi phenomena**, neglected in Studler and Leu.

- The reduction system is not complete. Masculine forms do not show much reduction in Nom. and Acc., for example.
- Feminine and neuter forms show article reduction (**vowel drop**) in almost any environment
- Sandhi: assimilation to the following consonant if possible (Féry and Meier, 1993).
- **die Frau** vs. no Sandhi
D frau → **Pfrau** Sandhi

Swiss German Article System: Contraction?

- **Regular Contraction examples** in the environment of prepositions (like German).

zu der Frau vs.

zu-r Frau

no contraction

contraction

- Hinrichs (1984) argues that the phenomenon is not contraction but a case of inflected prepositions.

i dä Baum vs.

in Baum

no contraction

no contraction

Background

- Proposals: familiarity vs. uniqueness accounts — and **a certain amount of overlap**.
- There are quite some examples, I think, that motivate rethinking the claims in the literature: **the overlap**.
- My proposal: Choice of the article has to do with the **temporal or spatial interpretation of NP/DP: dependent on the verbal predicate**: Musan (1999); Keshet (2008, 2010)
- Main reason: Leiss (2000) argues from **a historical/typological perspective** that aspectual (verbal system) and the system expressing definiteness are related: **Loss of the aspectual system** in the history of German coincides with the **emergence of the system of definiteness**.
- I am presenting a simplified version of a recent draft of mine.

Starting Point: Temporal (in)dependence

Musan (1999) observes that **definite descriptions may have two readings**: a time dependent reading and a time independent reading.

- (1) **The college student invented a time machine**
- 'a college student at the time of the invention'
(time dependent)
 - 'a college student at the time of utterance'
(time independent)

Musan follows Enç (1986) who proposed that NPs are temporally independent and **the different readings are the consequence of different contextual restrictions**. But there are contexts that require the temporally INdependent interpretation as Musan shows convincingly.

The observation from Swiss German

Article choice and temporal interpretation correlate

Observation: **Swiss German disambiguates these two readings** by choosing a weak/strong definite article. The reduced - weak definite article is restricted to the time dependent reading, only the full - strong definite article is compatible with both readings: **the difference seems semantic.**

- (2) **D** **Studäntin** hät e Zyytmaschine erfunde.
The_{red} student has a time machine invented
'a college student at the time of the invention'
(Simultaneity - reduced def. article)
- (3) **Die** **Studäntin** hät e Zyytmaschine erfunde.
The_{ful} student has a time machine invented
'a college student at the time of utterance or ...'
(Possibly no simultaneity - full def. article)

Hypothesis

The full article may shift the evaluation time (or location) of the description, the reduced article does not.

weak article	→	temporal dependence
strong article	←	temporal independence

Table: Temporal Relations

The strong article patterns with the demonstrative, the weak article patterns with the (regular) indefinite article in this respect: family resemblance between (in)definite articles (Meier, 2021).

Overview

- 1 Intro
- 2 Proposal/Application
- 3 The Overlap again
- 4 Conclusion

Two definite articles: Semantics

- 1 **reduced**, quantifier, time dependent interpretation

$$\llbracket \mathbf{d-} \rrbracket (P^{(et)}) = \lambda Q^{(et)}. \exists x [P(x) \ \& \ \forall y [P(y) \rightarrow y = x] \ \& \ Q(x)]$$

- 2 **full**, quantifier, time independent interpretation

$$\begin{aligned} \llbracket \mathbf{d-} \ \mathbf{t} \rrbracket^C (P^{(i,et)}) = \\ \lambda Q^{(i,et)}. \exists x [x \in C_D \ \& \ \exists t' [t' \in C_T \ \& \ P(t')(x) \\ \forall y [P(t')(y) \rightarrow y = x]] \ \& \ Q(g(\mathbf{t})(x))] \end{aligned}$$

- The reduced article is just an existential quantifier with a uniqueness condition. The time variables are introduced by the predicates.
- The full article introduces a free variable that the verbal predicate is evaluated on and that may be bound in the course of derivation.

Temporal Lambda Abstraction

(compare Keshet, 2010, 264)

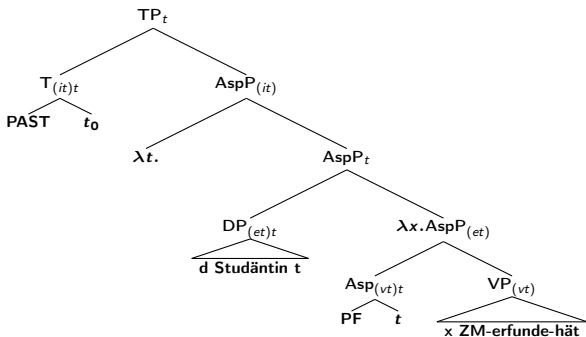
- (4) If g is a variable assignment, t is a variable of type i , and α is an LF node of type τ then $\llbracket \lambda t. \alpha \rrbracket^g$ is a function of type $(i\tau)$, such that
- $$\llbracket \lambda t. \alpha \rrbracket^g = \lambda t^*. \llbracket \alpha \rrbracket^{g[t/t^]}$$

Applications – reduced article: time dependent

von Stechow (2009, 2006); Beck and von Stechow (2015); Rapp and von Stechow (2015); Rapp (2015) for indefinites

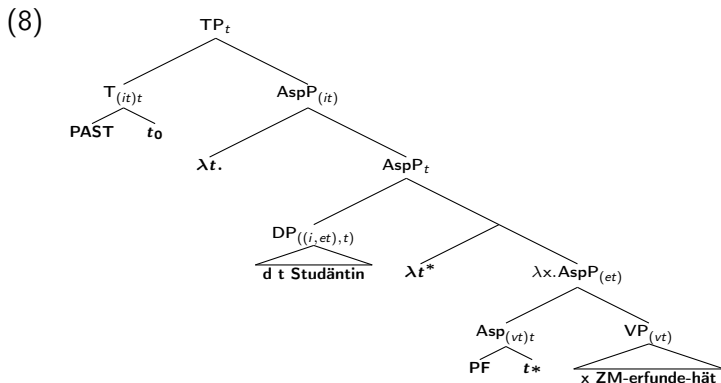
$$(5) \quad \exists t[t < t_0 \ \& \ \exists x[\text{STUDENT}(x, t) \ \& \ \forall y[P(y, t) \rightarrow y = x] \ \& \ \exists e[\tau(e) \subseteq t \ \& \ \text{ITM}(x, e)]]]$$

(6)



Applications – full article: time (in)dependent

$$(7) \quad \exists t[t < t_0 \ \& \ \exists x[x \in C_D \ \& \ \exists t^*[t^* \in C_T \ \& \ P(x, t^*) \\ \forall y[y \in C_D \ \& \ P(y, t^*) \rightarrow y = x]] \ \& \\ \exists e[\tau(e) \subseteq t \ \& \ ITM(x, e)]]]$$



Presuppositions?

- Every existential quantifier may be conceived as introducing a discourse referent that could be old or not.
- Free variables get their value from a variable assignment: the value should be familiar.
- Four types of definite descriptions (cf. Musan)
 - 1 **Context-presuppositional DPs**: partitive readings/subsectional anaphora
 - 2 **Context-at-issue DPs**: non-partitive readings (uniqueness)
 - 3 **Existence-presuppositional DPs**: anaphoric uses
 - 4 **Existence-at-issue DPs**: non-anaphoric readings

1 Context-presuppositional DPs: a standard example

Part-whole bridging

(9) A: Are there animals in your garden?

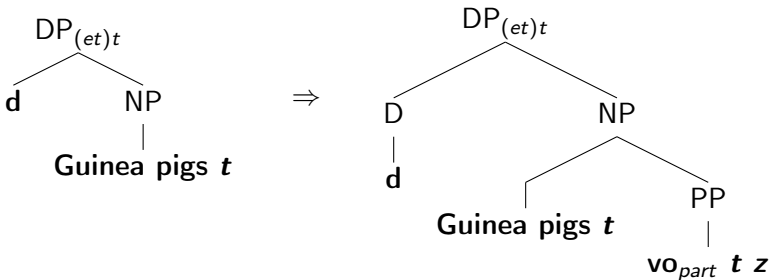
(10) B: De Peter hät d /MEERsäuli uuse
 The_{weak} Peter has the_{weak} guinea pigs outside
 bracht.

brought

B: 'Peter brought [at a time before now] the guinea pigs
 [at that time] outside.'

1 Context-presuppositional DPs: proposal

Proposal: Partitive shift: Introducing free variables whose values have to be FAMILIAR. Discourse referent is new.



Alternatives: Interpretation of the rising accent according to Büring (1997). Interpretation mechanisms of subsectional anaphora.

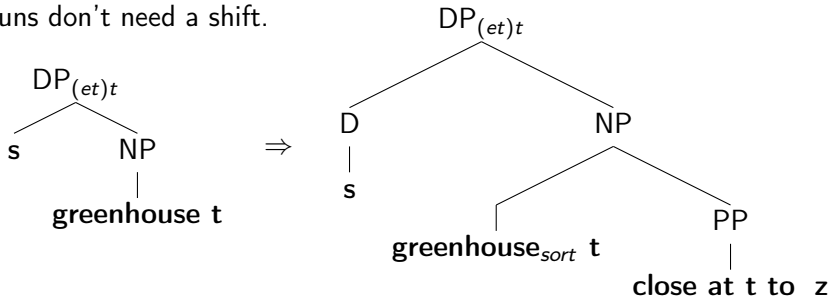
2 Context-at-issue DPs: standard example

(Umbach, 2001); Locative Bridging/larger situation uses

- (11) De Peter hät es Huus uf em Land. Letscht
 The_r Peter has a house on the countryside. Last
 Jahr hät er s GAR\tehüsli renoviert.
 year has he the_{weak} greenhouse renovated
 'Peter owns a house in the countryside. He renovated [at a
 time before now] the greenhouse [at that time] [close at
 that time to the house that Peter owns].'

2 Context-at-issue DPs: proposal

Proposal: Relational shift: well-known from the interpretation of possessives Barker (1995). The shift introduces again free variables. The noun in the description carries a falling accent. Relational nouns don't need a shift.



Alternatives: Pragmatic enrichment à la Cieschinger (2015) or in terms of a theory of givenness as in Umbach (2001). Also moon/sun/church.

3 Existence-presuppositional DPs: standard example English

Keshet (2010)

- (12) When I last visited my friend, he had two children: a six-year-old and a ten-year-old. The six-year-old graduated from med school two years ago.
- a. Predicted reading (de re): #The salient person who is now six years old graduated from med school at some time t two years ago.
 - b. Actual reading: The salient person who at some contextual time was six years old graduated from med school at some time other time two years ago.

The strong article must be used in order to convey 'the actual reading'. Using the weak definite article would amount to a contradiction.

3 Existence-presuppositional DPs: standard example Swiss German

Product-Producer bridging?

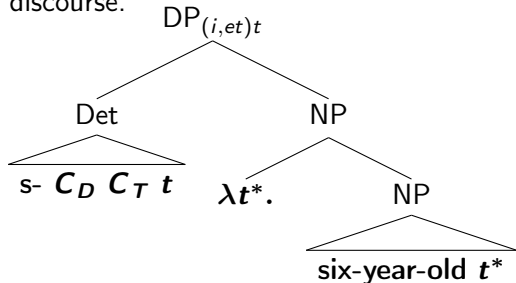
- (13) I han d Maria s letscht mal 2011 gsee. Da
 I have the Maria the_{weak} last time 2011 see_{part}. Then
 hät sie es baby und en 8 jährige bueb cha. Jetztig
 she had a baby and an 8 years boy have_{part}. Now
 isch das Baby 8 Jahr alt.
 is the_{ful} baby 8 years old
 'The last time I have seen Mary was 2011. Then she had a
 baby and an 8-year-old boy. Now, the baby is 8 years old.'

The strong article must be used in order to convey the actual reading. Using the reduced definite article would amount to a contradiction.

3 Existence-presuppositional DPs: proposal

anaphoric use

Proposal: There are hidden C-variables that introduce an element relation to a set of contextually familiar values: Global accomodation of the domain restriction of the existential quantifier Zeevat (1992); Beaver (2004); von Fintel (2004); Beaver and Zeevat (2007). We may put the C-variables into the object language: free variables. Uniqueness with respect to the universe of discourse.

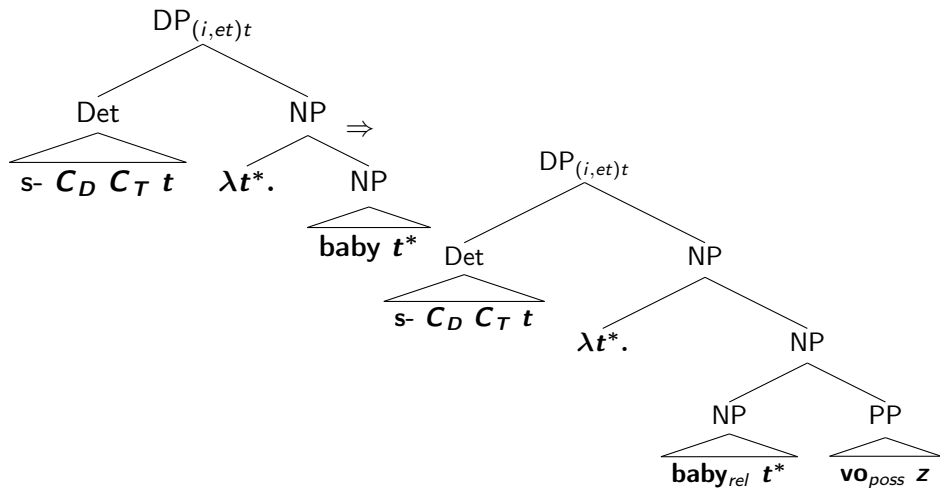


4 Existence-at-issue DPs: standard example

- (14) I han d Maria s letscht mal 2011 gsee. Da
 I have the Maria the_{weak} last time 2011 see_{part}. Then
 isch si schwanger gsi. Jetztig isch das Baby 8
 was she pregnant be_{part}. Now is the_{ful} baby 8
 Jahr alt.
 years old
 'The last time I have seen Mary was 2011. She was
 pregnant then. Now, the baby is 8 years old.'

The strong article must be used in order to convey the actual reading. Using the reduced definite article would amount to a contradiction.

4 Existence-at-issue DPs: proposal



Intermediate Summary

- Definite articles ALWAYS introduce uniqueness (Coppock and Beaver, 2015, 2014).
- There is hidden material in the descriptions that may have the same effect as prepositions.
- The full definite article comes with a situation variable, the reduced one does not.
- Economy principle: drop as much as you can.
- Question: How does this compare to Schwarz's proposal?

Anaphoricity and Uniqueness

Studler (2008) and Schwarz (2009) say: the clean picture is wrong

weak article	↔	uniqueness
strong article	↔	anaphoricity

Table: Anaphoric Relations

A Problem for the Schwarz Analysis

Both article forms come with a (potentially free) situation pronoun: the so-called **resource situation**. That is both forms should allow for situationally independent readings. The situation pronoun has a double role: domain restriction and situational determination. No shifts needed.

⇒ Two definite articles

- $\llbracket \mathbf{d}_{-red} \mathbf{s}_r \rrbracket = \lambda P^{<e,st>}. \iota x. P(x)(g(\mathbf{s}_r))$
 $\llbracket \mathbf{d}_{-ful} \mathbf{s}_r \rrbracket (P)(y) = \lambda. P^{<e,st>}. \lambda y^e. \iota x. [P(x)(g(\mathbf{s}_r)) \ \& \ x = y]$
 (and variants)

Overlap 1: Uniqueness - strong article example

Original from Schwager (2007) on Bavarian, variant of “Partee’s-balls example”

Schwarz (2009, 49): “... the strong article can always be used whenever the intended interpretation of a noun phrase can only be brought about by understanding it as anaphoric.” Anaphoric?

- (15) Wir haben 10 Eier versteckt, aber die Kinder haben
 We have 10 eggs hidden but the kids have
 erst neun gefunden. ?Im / In dem FEHLenden
 only 9 found in-the_{red} / in the_{full} missing
 Ei ist eine Überraschung.
 egg is a surprise
 ‘We hid 10 eggs, but the kids have only found 9 of them.
 There’s a surprise in the missing egg.’

That the full article is possible is surprising: uniqueness, but no familiarity (Roberts, 2003). Rising accent: context-presuppositional DP/falling contrastive accent: existence-at issue interpretation.

Overlap 2a: Familiarity - weak article example 1

Similar examples in Ebert (1971); Studler (2008) and Schwarz (2009, 47)

- (16) Peter hat eine Schublade_i und einen Schrank_j;
 Peter has a drawer and a cabinet
 durchsucht. Im /SCHRANK_j / ?in dem
 searched. In-the_{red} cabinet / in the_{ful}
 SCHRANK_j war nichts.
 cabinet was nothing.
 'Peter searched a drawer and a cabinet. In the cabinet, he
 didn't find anything.'

That the full article is dispreferred is surprising: anaphoricity, but no uniqueness. New view: Context-presuppositional DP, rising accent

Overlap 2b: Familiarity - full article example 2

Schwarz (2009, 49): “the weak article never seems to be able to pick out a previously introduced referent if the NP-description does not match that of the antecedent.” (let’s name it the ‘Schwarz effect’)

- (17) Peter hat **den Bürgermeister** und einen Pfarrer gefragt.
 Peter has the mayor and a priest asked.
 ?Vom **Politiker** / von dem **Politiker** hat er
 From-the_{red} politician / from the_{ful} politician has he
 nichts mehr gehört.
 nothing more heard
 ‘Peter asked the mayor and a priest. He didn’t hear
 anything anymore from the politician.’

This is a peculiar context: the antecedent is a definite with a functional noun (regular antecedent). New view: Existence-presuppositional DP, falling accent / regular contrastive focus (Rooth, 1985, 1992)

Overlap 2c: Familiarity - role of context?

- (18) Peter hat **einen Senator** und einen Pfarrer gefragt.
 Peter has a senator and a priest asked.
 Vom **Politiker** / von dem **Politiker** hat er
 From-the_{red} politician / from the_{ful} politician has he
 nichts mehr gehört.
 nothing more heard
 'Peter asked a senator and a priest. He didn't hear
 anything anymore from the politician.'

If we turn the antecedent indefinite, does the 'Schwarz effect' disappear? The weak definite article becomes possible, if not preferred. New view: Context-presuppositional DP, rising accent, subsectional anaphora. Difference in meaning according to the temporal interpretation.

Overlap 3a: Bridging: definite antecedent

Bridging cases usually come with P-def-contraction. Schwarz (p.53) observes cases with a full definite article.

- (19) **Das Theaterstück** missfiel dem Kritiker so sehr,
 The play displeased the critic so much
 dass er in seiner Besprechung kein gutes Haar #am
 that he in his review no good hair on-the_r
 / **an dem Autor** ließ.
 / on the_f author left
 'The play displeased the critic so much that he tore the
 author to pieces in his review.'

Theaterstück 'play' is a kind of converse of **Author** 'author'. The antecedent is definite. And it seems that the definiteness of the associative element is 'inherited' from its antecedent: Existence-presuppositional DP, a regular anaphoric use.

Overlap 3b: Associative Anaphora/Bridging: indefinite antecedent

Schwarz (2009)

The use of the full definite article depends on the definiteness of associated antecedent.

- (20) **Ein Theaterstück** missfiel dem Kritiker so sehr, dass
 A play displeased the critic so much that
 er in seiner Besprechung kein gutes Haar ?an dem /
 he in his review no good hair on the_f /
am Autor ließ.
 on-the_r author left
 'A play displeased the critic so much that he tore its
 author to pieces in his review.'

Schwarz's **empirical investigation is restricted** to contexts containing a relational noun that is the converse of the relational

Overlap 4: Relative clauses

Similar examples in Hartmann (1978); Studler (2008); Cabredo Hofherr (2014)

(21) Fritz wohnt jetzt in dem Haus, das er gebaut hat.
Fritz lives now in the_f house that he built
'Fritz lives now in the house that he built.'

(22) Im Institut, in dem ich vorher arbeitete, war das
in-the_f institute in that I before worked was that
kein Problem.
no problem
'In the institute that I worked in before this was no
problem.'

⇒ A third and fourth kind of relative clauses: **establishing relative clauses** Hawkins (1978), **descriptive relative clauses** (Wiltschko, 2013, Bavarian)? No. (22) is a case of a context-presuppositional DP. And (21) may be a case of an existence-at-issue DP, where the relative clause supplies the restriction.

Quantificational Variability

Associative bound uses: Ambiguities?

- (23) a. Every cat ate the mouse that it caught. (Heim, 2011)
b. Every nation cherishes its king. (Heim, 1982)

- Swiss German definite article choice disambiguates
- Strong article: establishing relative clause
- Weak article: only local accommodation: the time pronoun is trapped. Zeevat (1992)
- The possessive pronoun may establish the quantificational variability.

- (24) In every city, the mayor gave a speech.

Quantificational Variability

Covariing anaphoric uses: no existence anymore

- (25) Immer wän e frau aaglüüte hät, hät de Peter
 Always if a woman called aux has the_w*eak* Peter
 die Frau erkchännt.
 the_s*trong* woman recognized.
 'Always, if a woman called, Peter recognized that woman.'
- (26) 'All times that are relevant subintervals of a particular time
 in the past are times that include an event of recognition
 by Peter of a [unique] woman and as relevant subintervals
 count times that include an event of calling by that same
 woman.'

Conclusion

- Encouragement for fresh look on the Hawkins' uses of definite descriptions
- Examples from Swiss German show: a difference in the choice of the article may give rise to a difference in meaning and this has to do with the interpretation of tense (and aspect).
- Proposal: Strong definite article is an intensional operator.
- Bigger picture: Temporal (and spatial) information is important.

Appendix

Spatial information: Lewis (1970, 178)

- (27) Imagine yourself with me [David] as I write these words. In the room is [a cat]₁, Bruce, who has been making himself very salient by dashing madly about. He is the only cat in the room, or in sight, or in earshot. I start to speak to you: [The_{weak} cat]₁ is in the carton. [The_{strong} C₁ cat]₁ will never meet [our other cat]₂, because [our other cat]₂ lives in New Zealand. [Our New Zealand cat]₂ lives with the Cresswells. And there [he]₂'ll stay, because Miriam would be sad if [the_{weak/strong} cat]₂ went away.

Thank you!

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