

I - Unique (weak) vs Indexed (strong) Definites

Malte Zimmermann



The Semantics of (In)Definite DPs, with special focus on West African - Session I
17 June 2024

1 Introduction: The Problem

2 Uniqueness-based vs Familiarity-based analyses of DEF

- Uniqueness-based DEFs
- The uniqueness presupposition
- Familiarity-based analyses

3 Two DEF-markers in natural language

- Fering data: weak vs strong DEF
- German data: weak vs strong DEF
- Formal analysis
- Remaining Problems

4 Conclusion/Outlook

5 References

Introduction: The Problem

The problem

- (1) Uun Olersem wenet iar **an** fasker me sin wüf an twaalew jongen. Arken in Olersem was once a fisherman with his wife and twelve children each maaren ging **di** fasker auer bi Dunsem dik an do ütj uun't heef tu morning went the fisherman over at Dunsem dijk and then out into the tideland **a** faskguarder, am hurnfasker tu fangen. Een inj wiar **a** to the fish-gardens, comp hornfish to catch. One evening was fasker am naachterstidj noch äi wäler aran ... the fisherman at night still not again home
- 'In Olersem there once lived a fisherman with his wife and twelve children. Every morning the fisherman went over to Dunsem dike and then out into-the tideland to the fish-gardens in-order to catch hornfish. One night, the fisherman was still not home at night again ...' (Fering, Ebert 1971)

Questions for today

Questions:

- 1 What is the meaning of DEF articles across languages?
- 2 Why are there two DEF articles in Fering: weak $a(t)$ vs strong di ?
- 3 What is the meaning difference between the two DEF articles?
- 4 Is this form-meaning split robustly attested across languages?

Uniqueness-based vs Familiarity-based analyses of DEF

The classical picture: Uniqueness-based DEFs (Russell 1905, Frege 1892)

Some data

- (2)
 - a. A sun rose.
 - b. The sun rose.
- (3)
 - a. The moon is red tonight.
 - b. #The Jupiter moon is visible tonight
 - c. A Jupiter moon is visible tonight.
- (4)
 - a. #A president of Germany visited the exhibition
 - b. The president of Germany visited the exhibition.
- (5)
 - a. The highest mountain in the world is Mt Everest.
 - b. *A highest mountain in the world is Mt Everest.
- (6)
 - a. *A best student scored 100 percent.
 - b. One of the best students scored 100 percent
 - c. The best student scored 100 percent.

The classical picture: Uniqueness-based DEFs (Russell 1905, Frege 1892)

Some data

- (7)
 - a. #The student in this class is attentive
 - b. #The female professor of this class is tired.
- (8)
 - a. The person who discovered the planetary orbits died in misery.
 - b. The person who discovered the planetary orbits did not die in misery.
- (9)
 - a. The present king of France is bald.
 - b. The present king of France is not bald.
- (10) Our exhibition was visited by the king of France.

The classical picture: Uniqueness-based DEFs (Russell 1905, Frege 1892)

The meaning of DEF *the*

DEF *the* codes:

- 1 (salient) uniqueness
- 2 existence

(11) $[[\text{the president visited}]] = 1$ (Russell 1905)

- a. iff there is a unique x such that x is a president $\wedge x$ visited.
- b. $\exists x [\text{president}(x) \wedge \forall y [\text{president}(y) \rightarrow y = x] \wedge \text{visited}(x)]$

(12) $[[\text{the}]] =$ (Montague 1973)

- a. $\lambda P_{\langle et \rangle}. \lambda Q_{\langle et \rangle}. \exists x [P(x) \wedge \forall y [P(y) \rightarrow y = x] \wedge Q(x)]$
- b. = a function that takes two (characteristic functions of) sets and gives back true iff the intersection contains exactly one individual

The uniqueness presupposition

Uniqueness asserted or presupposed?

Whereas Russell (1905) takes both the existence and uniqueness inference to be asserted as part of the truth-conditions, Frege (1892) and Strawson (1950, 1964) treat the two inferences as presupposed:

(13) The King of France is bald.

- Russell (1905: 484): "Hence, one would suppose that "the King of France is bald" ought to be nonsense; but it is not nonsense since it is plainly false."
- Strawson (1964: 114): "[w]e feel very squeamish indeed about *The King of France is bald* presented abruptly, out of context"

The uniqueness presupposition

A reliable presupposition test: The *Hey, wait a minute*-test (von Stechow 2004)

The HWAM-test is a positive test for presuppositions and works as follows:

- 1 Take the original statement containing the potential presupposition trigger, cf. (14), and
- 2 add the inference in question by asserting that this is new information to the hearer; cf. (15-a)
- 3 If the resulting sequence is well-formed you will most likely deal with a presupposition
- 4 If the resulting sequence is ill-formed you will most likely deal with truth-conditional assertion; cf. (15-b):]

The uniqueness presupposition

- (14) *The person who proved Goldbach's conjecture* is a woman.
- ⇒ **there is a unique person that did the proof**
 - ⇒ that person is a woman
- (15)
- Hey, wait a minute! I had no idea **that somebody has proven the conjecture.**
good ⇒ presupposed information
 - #Hey, wait a minute! I had no idea **that person was a woman.**
⇒ No presupposed information

The uniqueness presupposition

In response to these data, existence and uniqueness are often coded as presupposed content (Heim & Kratzer 1998):

- (16) a. $[[\text{the}]]^s = \lambda f_{\langle et \rangle}$: there is a unique x in s , such that $f(x)$. ιz . $f(z)$ in s
 b. $[[\text{the king}]]^s = \iota z$. z a king in s ;
 defined iff there is a unique x in s , such that x is a king.

Maximize presupposition!

Treating the existence and uniqueness inference as presupposed, also gives an account of why (17-a) is preferred over (17-b), at least in our solar system.

- (17) a. **The** sun is shining.
b. ??**A** sun is shining.

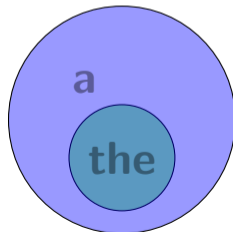
Maximize Presupposition!; Heim (1991)

If Φ and Ψ are competitors (in some well-defined class of competing elements), and Ψ has stronger presuppositions than Φ which are satisfied in c , and Φ and Ψ add the same new information to c , then the speaker must use Ψ in c . (Singh 2011)

⇒ Since it is common knowledge that there is exactly one sun, it is odd to say *#A sun is shining*; this sentence is 'blocked' by its competitor *The sun is shining*, which is a better competitor under *Maximize Presupposition!*

Anti-presuppositions

- The general communicative principle of *Maximize Presupposition!* voids the need to code a meaning component of *anti-uniqueness* in the indefinite DET in (17-b).
- The anti-uniqueness effect arises as a pragmatic effect from the choice of the indefinite DET over the stronger definite DET! This is an **anti-presupposition!**
- See Bade (2016) and Bade & Renans (2021) for extended discussion



Familiarity-based approaches

- In dynamic semantic treatments focusing on the assignment of referential indices to pronouns and DPs (Kamp 1981, Heim 1982), definite DETs are typically analysed as indicating *familiarity* in the sense of previous mention.
- DEF-marked NPs express a predication over a previously introduced discourse referent, whereas indefinite NPs introduce new discourse referents.

(18) I bought an orange. **The orange** tasted bitter.

(19) [[the orange]] = orange(x); defined iff $x = y$, **y a previously introduced DR**

- Uniqueness-based and familiarity-based treatments of definite DETs in English and other Indo-European languages have co-existed peacefully for a long time, but

Uniqueness-based vs Familiarity-based, or both

- Which analysis is correct for English, German, etc.? Or are both correct?
- How would we know?

⇒ At least some languages provide evidence that both analyses may be correct and required for different sub-cases of definite DETs!

Two DEF-markers in natural language

Two series of DEF determiners in natural language

In many languages, there are two series of DEF determiners with different distribution, which - presumably - follows from a difference in meaning:

weak DEFs vs strong DEFs,

where the notions 'weak' and 'strong' typically refer to the morpho-phonological shape as more or less morpho-phonologically complex

Fering (Ebert 1971)

- (20) a. Ik skal deel tu a/ *di kuupmaan.
I must down to the_{weak}/ the_{strong} grocer
'I have to go down to the grocer.'
- b. Oki hee an hingst keeft. *A/ Di hingst haaltet.
Oki has a horse bought the_{weak}/ the_{strong} horse limps
'Oki has bought a horse. The horse limps.' (Ebert 1971b, p. 161)

The distribution of DEF determiners

Following Hawkins (1978), DEF determiners such as English *the* occur in the following contexts/uses; cf. Schwarz 2013:535):

- (21) **Anaphoric Use:** John bought a book and a magazine. **The** book was expensive.
- (22) **Immediate situation:** the desk (uttered in a room with exactly one desk)
- (23) **Larger/Global situation:**
 - a. the prime minister (uttered in the UK)
 - b. the sun
- (24) **Bridging** (Clark 1975):
 - a. John bought a book. **The** author is French. (product-producer bridging)
 - b. John's hands were freezing as he was driving down the street. **The** steering wheel was bitterly cold and he had forgotten his gloves. (part-whole bridging)

Strong DEFs in Fering

Ebert (1971:107) analyses the strong DEF *d-* as coding anaphoricity/**strong familiarity**:

The communicative function of the definite article is to signal familiarity of the referent. In contrast to German, the D-article in Fering additionally indicates that the referent is identifiable by means of linguistic specification.

- (25) Peetje hee jister an kü₁ slaachtet. Jo saai, **det** kü₁ wiar äi sunj.
 Peetje has yesterday a cow slaughtered. One says the_{strong} cow was not healthy
 'Peetje has slaughtered a cow yesterday. One says the cow was not healthy.'

Weak DEFs in Fering

Following Ebert (1971:83), the weak DEF in (26) presupposes 'that the intended dog does not need to be specified any further, because there is only one dog at the time and place of the speech act that could be meant.': \implies **Immediate Situation**

- (26) **A** hünj hee tuswark.
 the_{weak} dog has toothache
 'The dog has a tooth ache.'

Weak DEFs in Fering

Schwarz (2013:541): "A crucial requirement of the weak article is that there be a unique referent fitting the description of the noun phrase (in the relevant domain of interpretation)."

⇒ **Uniqueness DEF**

Next to immediate situation uses, this also covers larger situation/global uniqueness uses, cf. (27-ab), as well as part-whole bridging, cf. (28):

Weak DEFs in Fering

- (27) a. **A** köning kaam to bischük.
 the_{weak} king came to visit
 'The king came for a visit.' (Ebert 1971: 82-83)
- b. Wi wiar tastig an **a** san braand üüb a skan
 we were thirsty and the_{weak} sun burnt on the skin
 'We were thirsty and the sun was burning our skin.' (Ebert 1971: 109)
- (28) Wi foon a sark uun a maden faan't taarep. **A** törem stän wat skiaf.
 We found the church in the middle of the village the_{weak} tower stood a little crooked
 'We found the church in the middle of the village. The tower was a little crooked.'
 (Ebert 1971: 118)

Back to strong DEFs in Fering

In contrast to part-whole bridging, product-producer bridging is anaphoric and requires the strong DEF determiner:

- (29) Peetji hee uun Hamboreg an bilj keeft. **Di** mooler hee ham an guden
 Peter has in Hamburg a painting bought The_{strong} painter has him a good
 pris maaget.
 price made.
 'Peter bought a painting in Hamburg. The painter made him a good deal.' (Schwarz
 2013:543)

Summary: DEF-marking in Fering

weak DEF	strong DEF
immediate situation	strong familiarity
larger/global situation	
part-whole bridging	product-producer bridging

Table: Distribution of weak and strong DEFs in Fering

Weak and strong DEFs in Standard German

The difference in marking between weak and strong definiteness also persists in a small niche of German (Schwarz 2009): **P+DP-combinations**

(30) von dem Bürgermeister vs **vo-m** Bürgermeister 'from the mayor'

- Non-contracted forms are used in strong familiar contexts and product-producer bridging
- Contracted forms are used in contexts satisfying immediate or larger situation uniqueness and in part-whole bridging
- The distribution parallels the distribution of weak and strong DEF in Fering!

Strong DEFs in Standard German

Non-contracted strong DEF-forms occur with strongly familiar definite DPs (pre-mentioned), cf. (31), and with product-producer bridging, cf. (32) (Schwarz 2009):

- (31) In der New Yorker Bibliothek gibt es ein Buch über Topinambur. Neulich
 In the New York library exists EXPL a book about topinambur. Recently
 war ich dort und habe #**im**/ **in dem** Buch nach einer Antwort auf die
 was I there and have in-the_{weak}/ in the_{strong} book for an answer to the
 Frage gesucht, ob man Topinambur grillen kann.
 question searched whether one topinambur grill can.
 'In the New York public library, there is a book about topinambur. Recently, I was
 there and searched in the book for an answer to the question of whether one can grill
 topinambur.'

Strong DEFs in Standard German

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

Weak DEFs in Standard German

Contracted weak DEF-forms occur in contexts that satisfy situational uniqueness, i.e. with immediate situation uniqueness, cf. (33), with larger/global situation uniqueness, cf. (34-ab):

(33) Feg mal die Krümel **vom**/ **#von dem** Tisch!

Wipe just the crumbs of-the of the table

'Go and wipe the crumbs of the table.'

(34) a. Der Empfang wurde **vom**/ **#von dem** Bürgermeister eröffnet.

The reception was by-the_{weak} by the_{strong} mayor opened

'The reception was opened by the mayor.' (Schwarz 2013:541)

b. Armstrong flog als erster **zum** Mond.

Armstrong flew as first.one to-the_{weak} moon

'Armstrong was the first one to fly to the moon.'

Weak DEFs in Standard German

... or with part-whole bridging, cf. (35) (Schwarz 2009):

- (35) Der Kühlschrank war so groß, dass der Kürbis problemlos **im/**
 The fridge was so big that the pumpkin without a problem in-the_{weak}
#in dem Gemüsefach untergebracht werden konnte.
 in the_{strong} crisper stowed be could
 'The fridge was so big that the pumpkin could easily be stowed in the crisper.'

Summary: DEF-marking in Fering and Standard German

weak DEF a/contraction	strong DEF d/non-contraction
immediate situation	strong familiarity
larger/global situation	
part-whole bridging	product-producer bridging

Table: Distribution of weak and strong DEFs in Fering and Standard German

In addition, Schwarz (2009) proposes one additional diagnostic each for weak and strong DEF-marking, respectively:

- Situation-bound co-variation: weak DEF, cf. (36)
- Donkey sentences: strong DEF, cf. (37)

... we will come back to this below

Further diagnostics

(36) In jeder Stadt hat die Delegation einen Termin **beim/ #bei dem**
 In every city has the delegation an appointment with-the with the
 Bürgermeister.
 mayor
 'In every city, the delegation had an appointment with the mayor.'

(37) Wenn jemand einen Hund hat, hat sie auch ein Bild **von dem/ #?vom**
 if somebody a dog has has she also a picture of the of-the
 Hund.
 dog
 'If somebody has a dog, she also has a picture of the dog.'

Formal Analysis

The basic idea (Schwarz 2009)

Both theories of English DEF *the* are correct for part of the data:

- The **uniqueness-based** analysis accounts for the occurrence of weak DEFs in uniqueness contexts.
- The **familiarity-based** analysis accounts for the occurrence of strong DEFs in strong familiar contexts, including anaphoric and exophoric (salient situational presence) contexts.

Formal Analysis of weak DEF

Weak DEFs introduce a uniqueness presupposition

(38) $[[\text{DEF}_{\text{unique}}]]$ = $\lambda s. \lambda P_{\langle s, et \rangle}$: there is a unique x , such that $P(s)(x)$. $\iota z. P(s)(z)$

- (39) a. $[[\text{A köning kaam to bischük }]]$ = 1 iff
 b. $\text{visited}'(\iota z. \text{king}(s_0)(z)) =$
 iff the unique king-individual in resource situation s_0 visited the speaker;
 c. defined iff there is a unique x , such that x a king in s

Formal Analysis of strong DEF

Strong DEFs introduce a uniqueness and familiarity presupposition

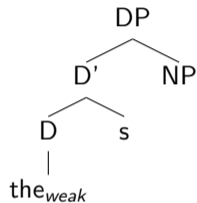
Strong DEF DPs refer to the unique contextually salient P-individual.

$$(40) \quad [[\text{DEF}_{\text{familiar}}]] = \lambda s. \lambda P_{\langle s, et \rangle}. \lambda y: \text{there is a unique } x, \text{ such that } P(s)(x) \wedge x = y. \\ \iota z [P(s)(z) \wedge z = y]$$

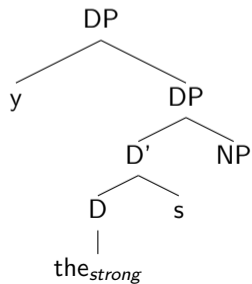
- (41) a. $[[\text{Det } \text{kü}_1 \text{ wiar } \text{äi } \text{sunj}]]^g = 1$ iff
- b. $\text{healthy}'(\iota z [\text{cow}(s_0)(z) \wedge z = g(1)])$
 = iff the uniquely pre-mentioned (salient) cow-individual in resource situation s_0 is healthy;
- c. defined iff there is a unique x in s , such that x a cow in s and x was pre-mentioned (or is otherwise salient)

DP-syntax

(42) DP-syntax weak DEF:



(43) DP-syntax strong DEF:



Remaining Problems

Schwarz's (2009, 2013) account has a good empirical coverage and appears to extend to other (non-indoeuropean) languages, but at the same time there are some remaining problems:

1. Definite DETs on globally unique DPs (*moon, sun, president*) are never strong, not even in anaphoric contexts:

- (44) Wi wiar tastig an a san braand üüb a skan. Iast di inj, üüs
 we were thirsty and the_{weak} sun burnt on the skin only the evening when
 a san al ruadglamen onerging, kaam wi tu an taarep.
 the_{weak} sun already red.glowing sank came we to a village
 'We were thirsty and the sun was burning our skin. Only in the evening, when the sun
 was already going down red-glowing, we came to a village.' (Ebert 1971: 109)

⇒ An effect of *Maximize Presupposition!* / General Informativity?

⇒ Globally unique entities do not require pre-mentioning for succesful identification ...

Remaining Problems

2. The occurrence of definite NPs in anaphoric contexts, is NOT a reliable diagnostic for strong DEFs (Bombi 2018). Strong DEFs would be licensed qua strong familiarity (i.e., identity to previously introduced discourse referent), whereas weak DEFs would be licensed by uniqueness in the topic situation as introduced by the preceding sentence(s).

⇒ As a result, there can be variability in DEF-form in anaphoric contexts:

- (45) Die leeder daai skul a Landraat tu Fear kem. ÜÜs det
 DEM following day should the district.administrator to Föhr come when DEM
 skap, huar a/di Landraat üüb wiar, bi a Wik uunläit, ...
 boat where the district.administrator on was at the Wyk arrived, ...
 'The following day, the district administrator was to come to Föhr. When the boat on
 which the administrator was arrived in Wyk, ...' (Ebert 1971:109)

Remaining Problems

2. The occurrence of definite NPs in anaphoric contexts, is NOT a reliable diagnostic for strong DEFs (Bombi 2018). Strong DEFs would be licensed qua strong familiarity (i.e., identity with a previously introduced discourse referent), whereas weak DEFs would be licensed by uniqueness in the resource situation as introduced by the preceding sentence(s).

⇒ As a result, there can be variability in DEF-form in anaphoric contexts:

The d-article can furthermore act as an indicator of 'distance' from speaker and hearer if the referent is not specified by the speech situation [sic!] or by the relevant social context of speaker and hearer, but through the narrative situation (Erzählsituation) (Ebert 1971:111)

Remaining Problems

3. Modelling the occurrence of weak DEFs under situation-bound covariation, cf. (46), requires treating DP-quantifiers as adverbial Qs over situations (Schwarz 2009).

(46) Situation-bound co-variation:

- a. In jeder Stadt hat die Delegation einen Termin **beim/ #bei dem**
 In every city has the delegation an appointment with-the with the
 Bürgermeister.
 mayor
 'In every city, the delegation had an appointment with the mayor.'
- b. For all contextually relevant city-situations s , the delegation had an appointment with the unique mayor in s .

Remaining Problems

4. Donkey-sentences can be modelled either in terms of strong familiarity (strong DEF) or in terms of situational uniqueness (weak DEF),

⇒ This triggers some variability in the expression of DEF:

(47) Donkey sentence:

- a. Wenn jemand 'n Hund hat, hat er auch 'n Bild von dem/ #?vom Hund.
if somebody a dog has has he also a picture of the of-the dog
'If somebody has a dog, she also has a picture of the dog.'
- b. strong DEF: $\forall s [\exists x \exists y [\text{person}(s)(x) \wedge \text{dog}(s)(y) \wedge x \text{ owns } y \text{ in } s]] : \exists z [\text{picture}(s, z, \iota v [\text{dog}(s)(v) \wedge v=y]) \wedge x \text{ owns } z \text{ in } s] = \text{picture of the aforementioned dog}$
- c. weak DEF: $\forall s [\exists x \exists y [\text{person}(s)(x) \wedge \text{dog}(s)(y) \wedge x \text{ owns } y \text{ in } s]] : \exists z [\text{picture}(s, z, \iota v [\text{dog}(s)(v)]) \wedge x \text{ owns } z \text{ in } s] = \text{picture of the unique dog in each } s$

Remaining Problems

5. The weak-strong diagnostics may not be applicable to all languages. Other languages may cut the semantics pie of definiteness in different ways, cf. Agodio, Jenks, Sande & Zimmermann (2024) on Guébie:

- (48) a. e⁴ ni⁴ jiro^{3.3} bala^{2.2} εja^{3.1} coje^{3.1} i³ jε² pε⁴
 1SG.NOM see.PFV sunday diminish.PFV and moon 3PL.NOM while sleep.PFV
 jaanε^{2.3.1}
 today
 'I saw the sun and moon go down today.'
- b. jiro-ji#(=a)=a^{2.3.1.1.1} jala^{2.2.2} titi^{4.4}
 sun-SG=DEF=PST be.red very
 'The sun was very red.'

DEF-marker =a in Guébie marks NP referent as UNIQUE AND PRE-MENTIONED/SALIENT
 ⇒ A more restricted distribution for =a!!!

Remaining Problems

6. The notion of (strong) familiarity is a bit imprecise, for which reason Jenks (2018) introduces the alternative notion of *indexed* DEF, where indexing refers to the fact that the NP-referent must be identical to some salient anaphorically or exophorically accessible referent in the context; see tomorrow!

Conclusion/Outlook

Conclusion

- Some natural languages exhibit a split in their DEF-marking system: weak vs strong DEFs
- There can be either two forms, or the split is marked by a choice between zero & overt DEF
- weak DEFs encode uniqueness-based definiteness, whereas strong DEFs encode strong familiarity/indexed definiteness
- According to Schwarz (2013), the DEF-split is also overtly marked in some Creole languages as well as in West African languages, such as Akan and Hausa!

⇒ See tomorrow and later this week!

Two questions for tomorrow

- How is DEF marked in your language?
- Is there any evidence for the existence of a weak-strong DEF-split in your language?

References

References

- Agodio, B. O, P. Jenks, H. Sande, M. Zimmermann [2024] Indexed definiteness without demonstratives in Guébie. In J. Lecavelier et al. (eds.), Proceedings of TripleA 10. Potsdam: Universitätsverlag.
- Bade, Nadine. 2016. Obligatory presupposition triggers in discourse – empirical foundations of the theories Maximize Presupposition and Obligatory Implicatures. PhD thesis. University of Tübingen.
- Bade, Nadine & Agata Renans (2021). A crosslinguistic view on the obligatory insertion of additive particles — Maximize Presupposition vs. Obligatory Implicatures. *Glossa: a journal of general linguistics* 6(1): 51. 1–24. DOI: <https://doi.org/10.5334/gjgl.727>
- Bombi, Carla (2018). Definiteness in Akan: Familiarity and uniqueness revisited. Proceedings of SALT 28: 141–160.
- Ebert, Karen. 1971. Referenz, Sprechsituation und die bestimmten Artikel in einem nordfriesischen Dialekt (Fering). PhD thesis, Christian-Albrechts-Universität zu Kiel.
- Frege, Gottlob. 1892. On sense and reference. Translations from the philosophical writings of Gottlob Frege, eds. by P. Geach and M. Black, 56–78. Oxford: Blackwell.
- Hawkins, John A. 1978. Definiteness and indefiniteness. London: Croom Helm.
- Heim I (1982) The semantics of definite and indefinite noun phrases. PhD Thesis, UMASS, Amherst.
- Heim, I. 1991. Artikel und Definitheit. In *Semantik: Ein internationales Handbuch der zeitgenössischen Forschung*, ed. A. von Stechow and D. Wunderlich, 487–534. Berlin: de Gruyter

References

- Kamp, Hans. 1981. A theory of truth and semantic representation. *Formal methods in the study of language: proceedings of the third Amsterdam colloquium*, eds. by J. Groenendijk, T. Janssen and M. Stokhof, Vol. I, 227–321. Amsterdam: Mathematical Center.
- Russell, Bertrand. 1905. On denoting. *Mind* 14. 479–93.
- Schwarz, Florian (2009). Two types of definites in natural language. PhD thesis, University of Massachusetts Amherst, Amherst, MA.
- Schwarz, Florian (2013). Two kinds of definites cross-linguistically. *Language and Linguistics Compass* 7/10: 534–559.
- Singh, Raj. 2011. Maximize Presupposition! and local contexts. *Natural Language Semantics* 19 (2): 149–168.
- Strawson, P.F. (1964). Identifying reference and truth-values. *Theoria* 30 (2):96-118.
- von Stechow, Kai. 2004. Would you believe it? The king of France is back! Presuppositions and truth-value intuitions. In M. Reimer & A. Bezuidenhout (eds.), *Descriptions and beyond*, 315–341. Oxford University Press.