Lecture I-II - NPIs: the licensee question

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Negative dependencies

- Negative dependencies come about in various kinds:

- Negative Polarity Items (NPIs): elements that must appear in contexts that count in some way as negative.

- Positive Polarity Items (PPIs): elements that must appear in contexts that count in some way as positive.

Negative dependencies

- Among NPIs, various subtypes can be attested:

- N-words (can constitute fragment answers):

  Che ha detto? Niente   Italian

  What has she said? Nothing

- Plain NPIs (cannot constitute fragment answers):

  What did she say? *Anything (int.: nothing)

Negative dependencies

Plain NPIs can be divided in various types too:

- **Superstrong** NPIs: Only in **Anti-Morphic** contexts;
  Dutch *mals* ('soft')

- **Strong** NPIs: Only in **Anti-Additive** contexts;
  Dutch *ook maar* ('at all'); English *at all*

- **Strong/Weak** NPIs: In some but not all
  Dutch *hoeven* ('need') ; English *need*   **Downward Entailing** contexts;

- **Weak** NPIs: Only in **Downward Entailing** contexts;
  English *ever, any*

- **Superweak** NPIs: Only in all **Non-Veridical** contexts;
  Mandarin *shenme* ('a (thing)')

Negative dependencies

- Negative dependencies have been accounted for in several ways:

- N-words/negative concord: Polyadic quantification (De Swart & Sag 2002), Lexical ambiguity (Herburger 2001), NPI-hood (Ladusaw 1992, Giannakidou 2000), Syntactic agreement (Ladusaw 1992, Zeijlstra 2004, 2008, Penka 2010).

Negative dependencies

- NPIs/PPIs: Pragmatic strengthening (Kadmon & Landman 1993, Krifka 1995, Chierchia 2005, 2013), Absence of existential import (Giannakidou 2010), Syntactic agreement (Den Dikken 2006, Herburger & Mauck 2007), Lexical incorporation (Postal 2000, Collins & Postal 2014).

Negative dependencies

- Most of these approaches implicitly or explicitly take NPIs (and PPIs) to be a homogeneous class, possibly even extending to n-words.

- Evidence for a single syntactic-semantic category of NPIs, however, appears to be lacking.

Convergence vs divergence

Two views on NPI-hood:

- Divergence: All NPIs are NPIs for the same reason and form a homogeneous class. Variation among NPIs is only ancillary / superficial.

- Convergence: NPIs can be NPIs for different reasons and form a heterogeneous class. Variation among NPIs is fundamental.
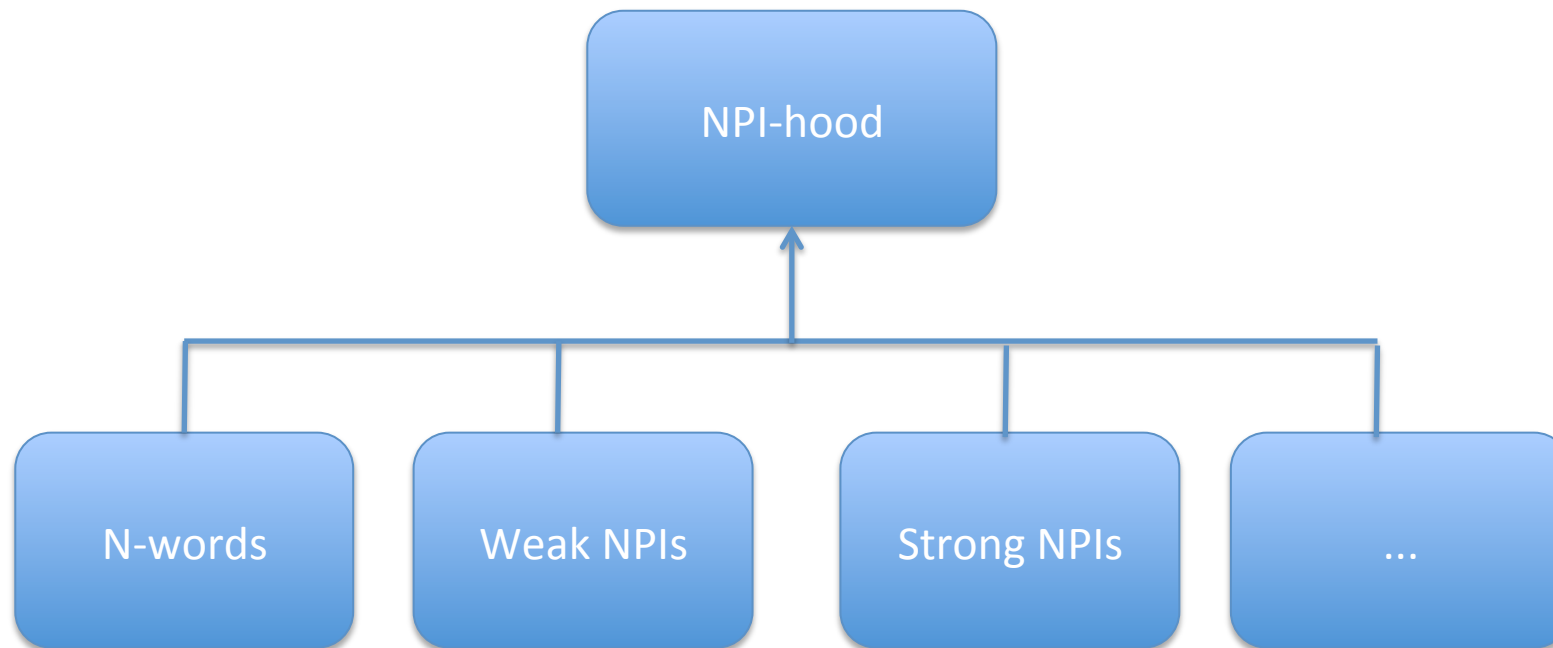
Convergence vs divergence

- Divergence:
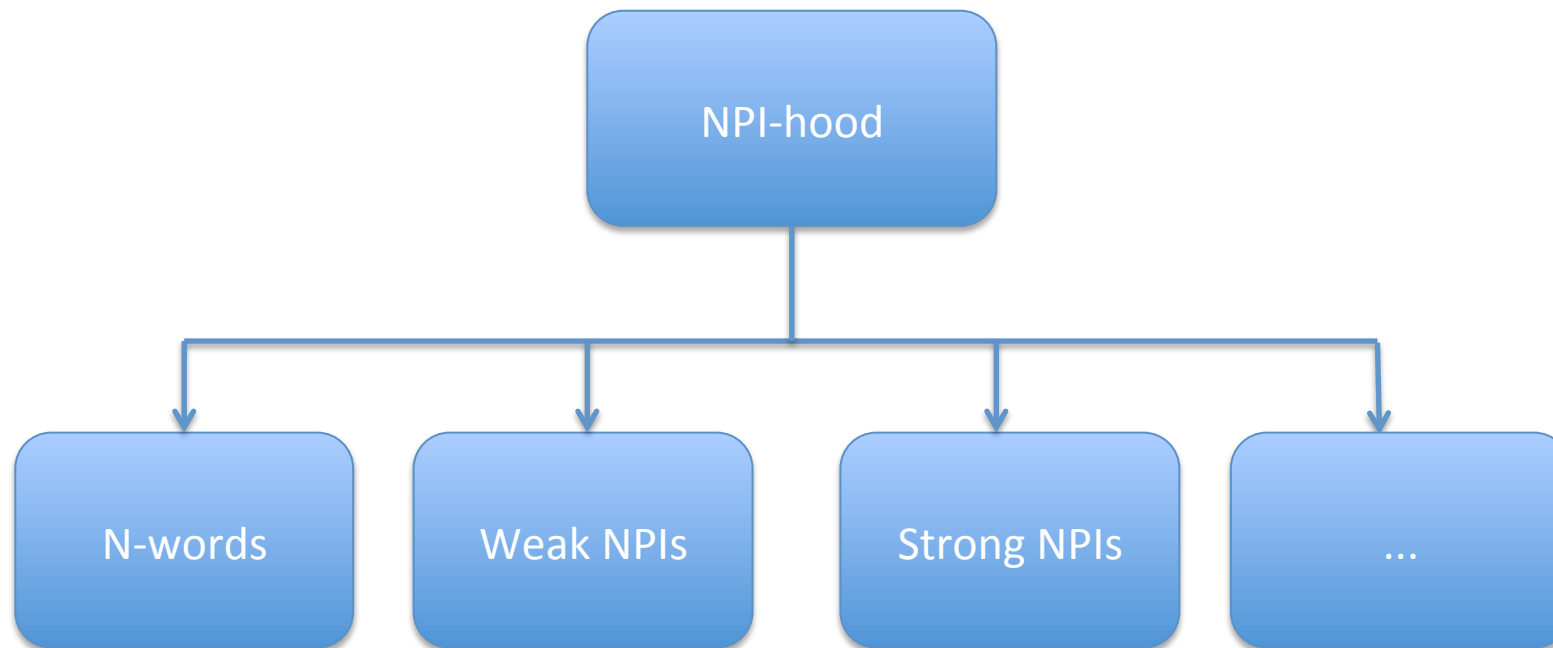
Convergence vs divergence

- Convergence:

Negative dependencies

- Convergence predicts that to the extent that they are applicable to polarity-effects all known syntactic, semantic, pragmatic and lexical ways of encoding dependencies should be attestable among the domain of NPIs (and PPIs), unless ruled out independently (e.g. on functional or formal grounds or learnability).

Convergence vs divergence

Advantages of convergence:

- A uniform approach to all instances of negative dependencies without ignoring their internal differences.

- A better understanding of the range of variation that can be attested among all negative dependencies (‚the landscape'), including n-words and PPIs.

- Predicts possible negative dependencies that might otherwise remain unobserved.

Today

Two case studies that provide evidence in favour of the convergence approach to negative dependencies:

Today

Outline

- Case Study I: weak, weak/strong and superweak NPIs: evidence from distribution and acquisition (Lin, Weerman & Zeijlstra 2014).

- Case Study II: two types of weak NPIs (Zeijlstra 2013a)

CS-I: Three types of NPIs

Three types of NPIs:

- Strong/weak NPIs: fine in every Anti-Additive context and some, but not all Downward Entailing contexts.

- Weak NPIs: fine in every Downward Entailing context.

- Superweak NPIs: fine in every Non-Veridical context.

CS-I: Three types of NPIs

- Convergence: NPIs with a different distribution must be NPIs for a different reason.

- What can be sources for NPI-hood?

CS-I: Approaches to NPI-hood

Syntactic/lexical approach:

- It is a syntactic/lexical property of NPIs that they must stand in a proper configuration with their licenser.

Pragma-semantic approaches:

- Due to pragmatic strengthening, sentences containing unlicensed NPIs give rise to some semantic contradiction.

- NPIs are lexically deficient to give rise to existential import.

CS-I: Syntactic/lexical approaches

- NPIs come along with a syntactic requirement that they be licensed by a (semi-)negative element (Klima 1964, Laka 1990, Progovac 1992, 1993, 1994, Postal 2000, Den Dikken 2006, Herburger & Mauck 2007):

- any: $[_D$ NEG $[A(N)]]$ (Postal)
- any$_{[uNEG]}$ (Den Dikken/H&M)

CS-I: Syntactic/lexical approaches

Postal: the negation that is part of in any must be spelled out elsewhere:

- I saw nobody

- I did-[n't]$_i$ see t$_i$-anybody

Den Dikken/Herburger & Mauck: [uNEG] on any must be checked by a higher element carrying [iNEG]:

- I didn't$_{[iNEG]}$ see anybody$_{[uNEG]}$

CS-I: Syntactic/lexical approaches

Potential problems:

- No principled restriction to what kind of elements can be PPIs/NPIs.

- Unclear how the set of potential licensers can be extended to all downward entailing contexts (including restrictive clauses of universal quantifiers and *if*-clauses).

- Feature checking may already underlie Negative Concord (Ladusaw 1992, Zeijlstra 2004, 2008).

CS-I: Pragma-semantic approaches

- NPIs in a non-downward entailing context give rise to a semantic contradiction (Kadmon & Landman 1993, Krifka 1995, Lahiri 1998, Chierchia 2005, 2011).

Downward entailing context: if p entails q, then

DE(q) entails DE(p)

Clara is a cow -> Clara is an animal

Clara isn't an animal -> Clara isn't a cow

CS-I: Pragma-semantic approaches

Following Chierchia (2006, 2013), the ungrammaticality of unlicensed NPIs can be understood, once it is assumed that:

- NPIs are domain-wideners.

- NPIs come along with some (syntactic) feature that triggers a covert exhaustification operator.

- Inherent contradictions give rise to ungrammaticality judgements.

CS-I: Pragma-semantic approaches

- Any is a domain widener:

  I don't have any potato > I don't have a potato

  The domain of quantification is extended

- Any needs to be obligatorily exhaustified:

  All (scalar/domain) alternative expressions that are stronger than the utterance containing any are false:

  If q entails p, then EXH(p) entails that q is false (EXH is the same as Chierchia's O)

CS-I: Pragma-semantic approaches

- I don't have a potato

    [EXH$_{[i\sigma]}$ I don't have any potato$_{[u\sigma]}$]

- *I have any potato

    [I have any potato$_{[u\sigma]}$]   no contradiction,

                                                                    unchecked feature

    [EXH$_{[i\sigma]}$ I have any potato$_{[u\sigma]}$] contradiction,

                                                                    checked feature

CS-I: Pragma-semantic approaches

- Domain widening

  I don't have any potato: p1, p2, p3.

- Obligatory exhaustification

  ¬∃p[p∈{p1, p2, p3} & Have(I, p) >

  ¬∃p[p∈{p1, p2} & Have(I, p)

  ¬∃p[p∈{p2, p3} & Have(I, p)

  ¬∃p[p∈{p1, p3} & Have(I, p)

  ¬∃p[p∈{p1} & Have(I, p), etc.

Case Study I

EXH($\neg\exists p[p\in\{p1, p2, p3\}$ & Have(I, p)) =

   $\neg\exists p[p\in\{p1, p2, p3\}$ & Have(I, p)

An utterance containing any in a downward entailing contexts is already stronger than any of its alternatives.

CS-I: Pragma-semantic approaches

- *I have any potato:
  $\exists p[p \in \{p1, p2, p3\}$ & Have(I, p) <
    $\exists p[p \in \{p1, p3\}$ & Have(I, p)
    $\exists p[p \in \{p2, p3\}$ & Have(I, p)
    $\exists p[p \in \{p1, p3\}$ & Have(I, p)
    $\exists p[p \in \{p1\}$ & Have(I, p)
    $\exists p[p \in \{p2\}$ & Have(I, p)
    $\exists p[p \in \{p3\}$ & Have(I, p)

All domain alternatives are stronger. Therefore:

CS-I: Pragma-semantic approaches

EXH(∃p[p∈{p1, p2, p3} & Have(I, p)) =

∃p[p∈{p1, p2, p3} & Have(I, p) &
¬∃p[p∈{p1, p3} & Have(I, p) &
¬∃p[p∈{p2, p3} & Have(I, p) &
¬∃p[p∈{p1, p3} & Have(I, p) &
¬∃p[p∈{p1} & Have(I, p) &
¬∃p[p∈{p2} & Have(I, p) &
¬∃p[p∈{p3} & Have(I, p)

Contradiction

CS-I: Pragma-semantic approaches

Potential problems:

- Domain widening hard to establish empirically (though can be motivated diachronically);

- NPI-hood reduces to two different requirements: domain widening and obligatory exhaustification (though arguably the two can be reduced, cf. Chierchia 2013);

CS-I: Pragma-semantic approaches

- An existential quantifier $\exists x_d$ is dependent iff the variable x_d it contributes does not introduce a discourse referent in the main context. (Giannakidou 1998)

- A dependent existential in this sense is an existential that cannot assert existence in a default context.

- Non-veridical context NV: NV(p) does not entail p.

CS-I: Pragma-semantic approaches

Such NPIs are elements that are said to only occur in non-veridical contents, i.e. contents that do not require existential import.

I didn't see any girl

Any girl does not require a specific referent in the discourse.

CS-I: Pragma-semantic approaches

Potential problem:

- NPIs that are lexically deficient are supposed not to occur in any kind of non-veridical context, but quite often their distribution is more restricted.

CS-I: Hypotheses

- Most problems with the three appraoches concern the fact that they predict different ditributions of NPIs (the lexical/syntactic approach predicts a more restricted distribution than DE; Giannakidou's approach a less restricted distribution).

- At the same time: NPIs vary with respect to their distributions.

CS-I: Hypotheses

Hypotheses:

- Weak/strong NPIs: NPIs that are lexically connected with a negation ('Postal-NPIs')

- Weak NPIs: low-scale domain widening elements that need to be obligatorily exhaustified ('Chierchia-NPIs')

- Superweak NPIs: elements that are referentially deficient ('Giannakidou-NPIs')

CS-I: Postal NPIs

Only a few languages exhibit examples of weak/ strong NPIs (e.g. certain Dutch, German, English universal modals).

Je hoeft *(niet) te gaan   Dutch

Du brauchst *(nicht) zu gehen   German

You need *(not) go   English

Another example would be French expletive *ne*.

CS-I: Postal NPIs

- Hoeksema (2008), Iatridou & Zeijlstra (2013): Dutch hoeven is much more restricted in terms of its licensing conditions than other NPIs.

- Hoeven can appear in several anti-additive contexts:

Niemand hoeft te werken

Nobody needs to work

Hij hoeft niets te doen

He needs nothing to do

CS-I: Postal NPIs

- But hoeven can appear in some downward entailing contexts only (*negated universals, few, only*):

Niet iedereen hoeft te werken

Not everybody needs to work

Weinig studenten hoeven te werken

Few students need to work

Alleen Hans hoeft te werken

Only Hans needs to work

CS-I: Postal NPIs

- In other anti-additive / downward entailing contexts hoeven may not appear (restrictive clauses of universals, if- clauses):

*Iedereen die hoeft te werken wordt om 7:00 verwacht

Everybody who needs to work is at 7:00 expected

*Als je hoeft te werken, word je om 7:00 verwacht

If you need to work, are you at 7:00 expected

CS-I: Postal NPIs

- This does not only apply to Dutch hoeven, but also to German brauchen and English need.

Nicht jeder braucht zu arbeiten

Not everybody needs to work

Nur Hans braucht zu arbeiten

Only Hans need work

CS-I: Postal NPIs

* Jeder der zu arbeiten braucht, wird um 7:00 erwartet

  Everybody who to work needs is at 7:00 expected

* Wenn du zu arbeiten brauchst, wirdst du um 7:00 erwartet

  If you to work need, are you at 7:00 expected

CS-I: Postal NPIs

Not everybody need go to work

Only John need go to work

*Everybody who need go, should be informed

*If you need go, you'll be informed

All contexts that license hoeven/brauchen/need are either plain negations or give rise to split-scope readings that contain a negation:

CS-I: Split scope readings

Split-scope readings:

You need to wear no tie:

i. *There is no tie that you need to wear (NEG>∃>NEED)

ii. It is not obligatory that you wear a tie (NEG>NEED>∃)

iii. ?It is obligatory that you wear no tie (NEED>NEG>∃)

CS-I: Split scope readings

Two approaches:

- Decomposition approach: split-scope effects result from lexical decomposition by means of some process of amalgamation (Jacobs 1980), incorporation (Rullmann 1995), syntactic agreement (Penka 2007, 2010) or of a post-syntactic spell-out rule (Zeijlstra 2011) .

CS-I: Split scope readings

- Negative quantifier approach: Negative indefinites are plain negative quantifiers and split-scope readings are derived as an entailment of quantification over kinds (Geurts 1996), properties (De Swart 2000) or choice-functions (Abels & Marti 2011).

CS-I: Split scope readings

- If the decomposition approach is correct, all licensers of universal NPI modals are licencers that in their lexical decomposition contain a negation.

- This is completely in line with the lexical/ syntactic approach to NPI-hood, the only approach that is able to predict universal NPIs in the first place!

CS-I: Split scope readings

- The only question that remains open, then, is the question as to why hoeven/need/brauchen got assigned a negation, whereas other elements did not.

- The answer: learnability constraints make that only specific elements can be lexically combined with a negation. Concretely, only elements that primarily occur almost always together with an (almost) adjacent negative marker.

CS-I: Chierchia NPIs

- The first pragma-semantic approach predicts that all those NPIs are fine in all Downward Entailing contexts (which is indeed the case, provided that polar questions are Downward Entailing too (cf. Mayr 2012, Nicolae 2013)).

- This pragma-semantic approach also predicts that those NPIs are low-scale elements that are domain widening.

CS-I: Giannakidou NPIs

- Finally, the second pragma-semantic approach predicts that certain NPIs are fine in all Non-Verdical contexts.

- This is indeed the case for Chinese shen-me („any(thing')):

CS-I: Giannakidou NPIs

(1) Negative indefinite (**AA**):
 Meiren kan *shenme* shu
 nobody read a book

(2) Negative universal (**DE**):
 wo bushimeitian dou kan *shenme* shu
 I not everyday all read a book

(3) 1st argument of universal quantifier (**DE**):
 wo *shenme* shu dou kan
 I a book all read

(4) Imperfective (**NV**):
 wo dasuan qu kan *shenme* shu
 I plan go read a book

(5) Simple past-tense (**Veridical**):
 *wo zuotian kan le *shenme* shu
 I yesterday read ASP a book

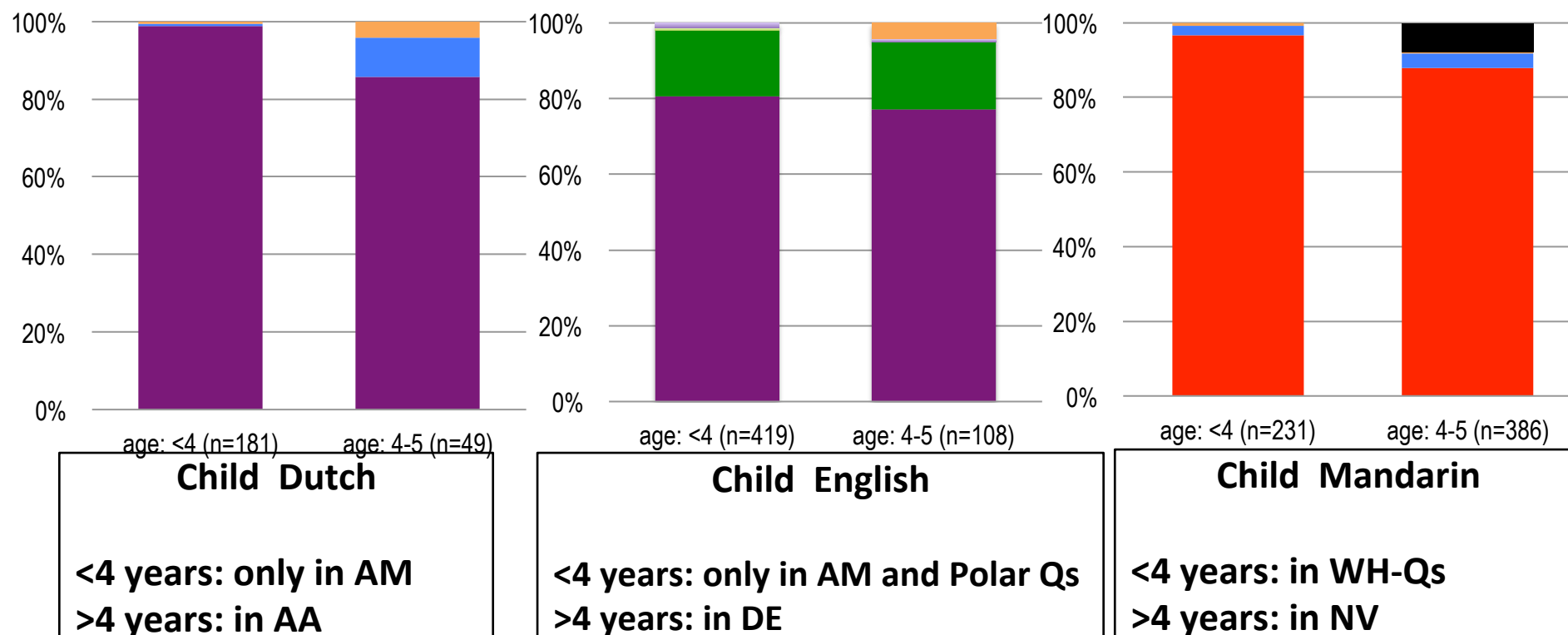# CS-I: Acquisitional pathways

- If these three NPIs are indeed NPIs for a different reason, this must be reflected in the way they are acquired.

- The acquisitional pathways must be such that the target state complies with the source of the predicted source of their negative dependency.

- This is indeed confirmed (Lin et al. 2014).

CS-I: Acquisitional pathways

- Childes study to the envoriments where children produce NPIs:

- Dutch *hoeven*, English *any*, Chinese *shen-me*

Language	Amount chat. files	Subcorpora of CHILDES (MacWhinney 2006)
Dutch	729	*BolKuiken, CLPF, Gilles, Groningen, Schaerlaekens, VanKampen* and *Wijnen*
English	1822	*Belfast, Cruttenden, Fletcher, Forrester, Howe, Lara, Manchester, Thomas-Heritage* and *Wells*
Mandarin	734	*Beijing 2, Zhou 1* and *Zhou 2*

CS-I: Acquisitional pathways

Child Dutch
<4 years: only in AM
>4 years: in AA

Child English
<4 years: only in AM and Polar Qs
>4 years: in DE

Child Mandarin
<4 years: in WH-Qs
>4 years: in NV

Anti-Morphic:
Other Anti-Additive:
Polar Qs:
WH-questions:
Other Downward Entailing:
Other Non-Veridical:
Overgeneralization:

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CS-I: Acquisition of *hoeven*

niet > hoeven at > **80%** in the input
    → **[HOEVEN NIET]** as children's analysis before 4

negative indefinites > *hoeven* at ≈ 15% in the input

Negative Indefinites

NEG   ∃

De Haan (1997), Jacobs (1980), Penka & Zeijlstra (2005), Rullmann (1995), Zeijlstra (2011)
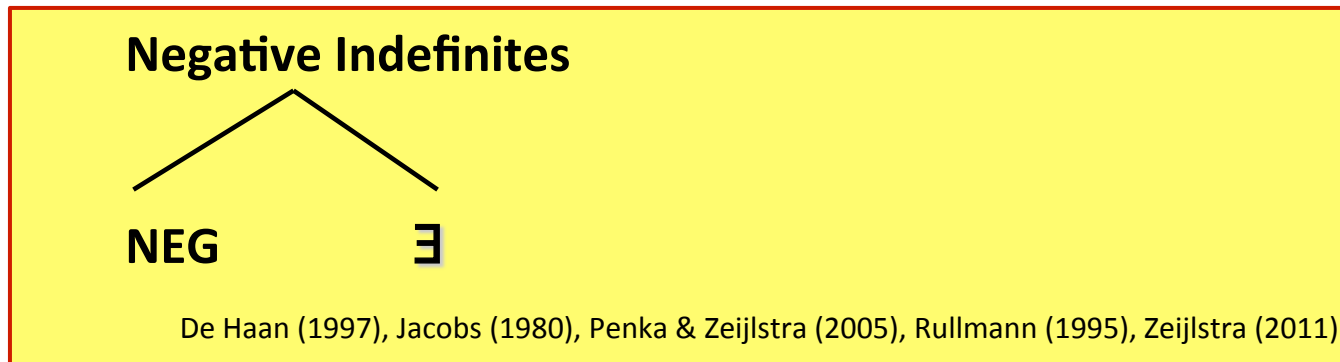
    → **[HOEVEN NEG]** as children's reanalysis after 4

CS-I: Acquisition of *hoeven*

- Evidence for split-scope readings in early child Dutch

Je mag   geen   deurtje   lenen   (2:11;09)
you   may   no door   borrow
'Your are not allowed to borrow a door'   NEG > AUX > $\exists$

Ik kan   niks   horen   (3:06;21)
I   can   nothing   hear
'I am not able to hear a thing'   NEG > AUX > $\exists$

CS-I: Acquisition of *any*

- *Not* & Polar Qs> *any* at > 93% in the input
- Polar Qs for children appear to be negatively biased ($\{\neg p, \neg\neg p\}$)

➔ ***any* only appears directly under ¬ at LF**

analysis by children before 4

CS-I: Acquisition of *any*

→**All low-scale elements give rise to an exhausted reading under polar questions and negation**

- **Other Downward Entailing contexts > *any* at ≈ 7% in the input**

→***any* itself triggers exhausitification, i.e., *any* carries [uEXH]/[σ]**

      reanalysis by children after 4

CS-I: Acquisition of *shen-me*

- **WH-questions > *shenme* at > 97% in the input**
  → ***shenme* being WH-quantifier**
    analysis by children before 4

- **other Non-Veridical contexts > *shenme* at ≈ 3% in the input**

Non-referential existential quantifiers may only appear in Non-Veridical contexts

Giannakidou (1998, 1999)

→ ***shenme* being a non-referential existential quantifier**
  reanalysis by children after 4

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CS-I: Conclusions

- Both distributional and acquisitional evidence shows that NPIs of different strength are NPIs for a different reason.

- Weak/strong NPIs are ‚Postal-NPIs'

- Weak NPIs are ‚Chierchia-NPIs'

- Superweak NPIs are ‚Giannakidou-NPIs'

- Most problems against each analysis disappear due to this co-existence of multiple sources of NPI-hood.

CS-II: Different type of weak NPIs

- So far, NPIs of different strength are NPIs for a different reason. But how'bout NPIs of the same strength?

- Are all weak NPIs 'Chierchia-NPIs'?

- Claim: even weak NPIs may have different sources

CS-II: NPI-like readings

1. Fritz hat Frage 3 beantwortet.
   Fritz has question 3 answered
    'Fritz answered question 3.'

2. Fritz kann eine Fremdsprache.
   Fritz knows a foreign language
    'Fritz knows a foreign language.'

3. Fritz hat Frage 3 oder Frage 4 beantwortet.
   Fritz has question 3 or question 4 answered
    'Fritz answered question 3 or 4.'

CS-II: NPI-like readings

1. *Fritz hat nicht Frage 3 beantwortet.
   Fritz has not question 3 answered
   Int.: ʻFritz didnʼt answer question 3.ʼ

2. *Fritz kann nicht eine Fremdsprache.
   Fritz knows not a foreign language
   Int.: ʻFritz doesn't know a foreign language.ʼ

3. *Fritz hat nicht Frage 3 oder Frage 4 beantwortet.
   Fritz has not question 3 or question 4 answered
   Int.: ʻFritz didnʼt answer question 3 or 4.ʼ

CS-II: NPI-like readings

1. Wir haben keinen angenommen, der nicht Frage 3 beantwortet hat.
   We have no one admitted who not question 3 answered has
   'We admitted no one who did not answer question 3.'
2. Wir haben keinen angenommen, der nicht eine Fremdsprache kann.
   We have no one admitted who not a foreign.language knows
   'We admitted no one who doesn't know a foreign language.'
3. Wir haben keinen angenommen, der nicht Frage 3 oder Frage 4 beantwortet hat.
   We have no one admitted who not qu. 3 or qu. 4 answered has
   'We admitted no one who did not answer question 3 or question 4.'

CS-II: NPI-like readings

1. Hat Fritz nicht Frage 3 beantwortet?
   Has Fritz not question 3 answered
   'Did Fritz not answer question 3?'

2. Kann Fritz nicht eine Fremdsprache?
   Knows Fritz not a foreign language
   'Doesn't Fritz know a foreign language?'

3. Hat Fritz nicht Frage 3 oder Frage 4 beantwortet?
   Has Fritz not question 3 or question 4 answered
   'Did Fritz not answer question 3 or 4?'

CS-II: NPI-like readings

1. Wenn Fritz nicht Frage 3 beantwortet hätte,
   wäre er durchgefallen.
   If Fritz not question 3 answered had, was he failed
   'If Fritz hadn't answered qu. 3, he would have failed.'

2. Wenn Fritz nicht eine Fremdsprache könnte, …
   If Fritz not a foreign language knew
   'If Fritz didn't know a foreign language, …'

3. Wenn Fritz nicht Frage 3 oder Fr. 4 beantwortet hätte, …
   If Fritz not question 3 or question 4 answered had
   'If Fritz didn't answer question 3 or 4, …'

CS-II: NPI-like readings

- Hence, some particular negative constructions with a particular reading are only available when embedded in a weak NPI-licensing environment.

- However, these constructions are fine with other, more marked, readings in non-NPI-licensing environments.

CS-II: Other readings

- We focus on the construction with the indefinite:

- *Fritz kann nicht eine Fremdsprache.
  Fritz knows not a foreign language
  Int.: ʻFritz doesn't know a foreign language.ʼ

CS-II: Other readings

The order *nicht ein*, in a non-NPI-licensing context, is able to give rise to a:

- ∃>¬ reading:

1. Fritz kann nicht eine Fremdsprache die man in Frankreich spricht.

   Fritz knows not a foreign.language that one in France speaks

   'Fritz does not a foreign language that one speaks in France.'

CS-II: Other readings

- To a focus-reading (with focus on the indefinite):

1. Fritz kennt nicht EINE Fremdsprache (er kennt DREI).
   Fritz knows not A/ONE foreign.language (he knows THREE)
   'Fritz doesn't speak one foreign language but three.'

2. Fritz kennt nicht (einmal) EINE Fremdsprache.
   Fritz knows not (even) A/ONE foreign.language
   'Fritz doesn't even know one foreign language'

CS-II: Other readings

- Unmarked reading: 'Fritz doesn't know a foreign language' (¬>∃) – only available in NPI-licensing contexts.

- Marked readings: the ∃>¬ or the focus reading, always available.

- The construction giving rise to the unmarked reading seems to be an NPI

CS-II: Light negation

- Schwarz (2000), Schwarz & Bhatt (2006): German *nicht* is lexically ambiguous between a plain negative marker and an NPI-negative marker, dubbed light negation.

CS-II: Light negation

- For S&B the unmarked reading can only be induced by the light negation, not by the plain negative marker.

CS-II: Light negation

- Schwarz (2000), Schwarz & Bhatt (2006) captures the distribution of light negation: light negation (with the unmarked reading) indeed seems to be limited to those contexts that generally license weak NPIs.

- At the same time, it faces a number of serious problems too.

CS-II: Light negation

- S&B cannot explain why the plain negative marker *nicht* may not appear in light negation contexts (cancelling the NPI effect).
- S&B cannot account for the fact that light negation with a marked reading is fine in non-NPI-licensing contexts.
- No independent evidence is provided for the lexical ambiguity of *nicht*?
- No clear indication what the semantics of light negation is, such that its semantic contribution can be explained
- Why would a negative marker exhibit NPI-like properties in the first place?

CS-II: Alternative explanation

- Is it possible to derive the NPI-like status of the emergence of the unmarked reading?

- What would be the necessary assumptions to make so that this NPI-like behavior of the emergence of the unmarked reading can be derived?

CS-II: Alternative explanation

- The semantics of a sentence containing the nicht ein construction gives rise to some additional readings in comparison to some particular alternative construction (kein).

- The readings of the nicht ein construction and the readings of the alternative construction thus stand in a superset-set relation.

- Uttering a sentence containing the nicht ein construction gives rise to an implicature that states that the speaker does not want to convey the more specific reading of the alternative construction.

CS-II: Alternative explanation

- Then in non-NPI-licensing contexts, the nicht ein construction can only give rise to any of its marked readings (i.e. one of the readings that the alternative does not yield).
- In NPI-licensing contexts, this implicature gets cancelled/surpressed and consequently all readings are available.
- This then derives the NPI-like behavior of the emergence of the unmarked reading.

CS-II: Alternative explanation

- Question: what is the marked alternative expression and what selects this expression to act as an alternative for the expression containing light negation?

- Answer: as a starting point we will take the minimally different expression that yields the unmarked reading (which must be blocked for light negation in non-NPI-licensing contexts) to be the relevant alternative.

CS-II: *Nicht ein* vs *kein*

1. *Fritz kann nicht eine Fremdsprache.
   Fritz knows not a foreign language
   Int.: 'Fritz doesn't know a foreign language.'

2. Fritz kann keine Fremdsprache.
   Fritz knows no foreign language
   'Fritz doesn't know a foreign language.'

CS-II: *Nicht ein* vs *kein*

- The nicht ein construction looks structurally ambiguous, with both structures giving rise to the same interpretation:

    [Fritz kann$_i$ [$_{vP}$ nicht [$_{vP}$ eine Fremdsprache t$_i$]]]

    [Fritz kann$_i$ [$_{vP}$ [$_{DP}$ [nicht eine] Fremdsprache] t$_i$]]]

CS-II: *Nicht ein* vs *kein*

- But the syntax of *keine* is more complex, given that *keine* (as well as other negative indefinites) may give rise to so-called split-scope readings:

1. Du musst keine Krawatte anziehen
   You must no tie wear

   a. 'It is not required that you wear a tie'   ¬ > must > ∃
   b. 'There is no tie that you are required to wear'
                                                    ¬ > ∃ > must
   c. 'It is required that you don't wear a tie'   must > ¬ > ∃

CS-II: *Nicht ein* vs *kein*

Two approaches:

- Decomposition approach: split-scope effects result from lexical decomposition by means of some process of amalgamation (Jacobs 1980), incorporation (Rullmann 1995), syntactic agreement (Penka 2007, 2010) or of a post-syntactic spell-out rule (Zeijlstra 2011) .

- Negative quantifier approach: Negative indefinites are plain negative quantifiers and split-scope readings are derived as an entailment of quantification over kinds (Geurts 1996), properties (De Swart 2000) or choice-functions (Abels & Marti 2011).

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- Under the negative quantifier approach, the syntax of *nicht eine* is different from *keine*, although it is not clear how these syntactic differences could invoke the effects discussed the NPI-like readings (esp. since no semantics of *nicht eine* is given).
- Under most analyses in the decomposition approach, the syntax of *nicht eine* is the same as the syntax of *keine.*

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- Exception: Zeijlstra (2011): kein is the spell out of a tree where the negation and the indefinite are syntactic sisters:

  [NEG INDEF] ⇔ kein

- Under this approach split-scope effects do not follow from PF-adjaceny of negation and the indefinite, but rather from QR-ing [NEG INDEF] followed by a process of partial reconstruction at LF.

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2. Fritz kann keine Fremdsprache

LF: [Fritz kann$_i$ [$_{vP}$ [nicht ~~eine~~] [$_{vP}$[~~nicht~~ eine]
        Fremdsprache t$_i$]]]

        [Fritz kann$_i$ [$_{vP}$ [NEG ~~INDEF~~] [$_{vP}$ [~~NEG~~ INDEF]
        Fremdsprache t$_i$]]]

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But now the syntactic structures of 1 and 2 are no longer ambiguous but different:

1. Fritz kann nicht eine Fremdsprache.
   [Fritz kann$_i$ [nicht [$_{vP}$ eine Fremdsprache t$_i$]]]

2. Fritz kann keine Fremdsprache.
   [Fritz kann$_i$ [$_{vP}$ [[nicht eine] Fremdsprache] t$_i$]]]
   [Fritz kann$_i$ [$_{vP}$ [[NEG INDEF] Fremdsprache] t$_i$]]]

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- Now, the semantic differences between 1 and 2 follow as well.

- 1. can give rise to (i) a ¬>∃ reading; (ii) a ∃>¬ reading (after raising *eine Fremdsprache*; and (iii) a focus readings, where the focus sensitive operator *nicht* associates with focus on *eine (Fremdsprache)*:

[Fritz kann$_i$ [nicht [$_{vP}$ eine Fremdsprache t$_i$]]]

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- But 2 can only give rise to the reading ¬>∃.

- ∃>¬ is excluded since *eine* and *Fremdsprache* do not form a constituent and thus cannot raise.

- Focus readings are excluded as well, since the negation and the indefinite jointly get spelled out as one word (*keine*), and focus effects never apply word-internally (cf. Williams 1981):

[Fritz kann$_i$ [$_{vP}$ [[nicht eine] Fremdsprache] t$_i$]]]

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- Now there are two competing syntactic structures, of which the second has a more restricted semantics than the first.

- From this it may be inferred that by uttering 1 instead of 2, the speaker wants to convey that 1 must receive a interpretation that 2 is lacking.

- However, the question still open as to what the exact nature of this implicature is.

CS-II: NPI-implicatures

Two possible strategies:

- One candidate for accounting for it is by alluding to Horn's devision of linguistic labour (assign a marked reading to a marked form, Horn 1984, 1989). The question then arises as to what renders the form with *kein* the unmarked candidate? The most straightforward way would be to relate this to the morphological form of the alternative expression, so under this approach light negation indirectly relates to morphological blocking.

CS-II: NPI-implicatures

- Another possibility would be to relate it to application of the maxim of Quantity (in the sense that not selecting the candidate with the most specific interpretation may reveal that the speaker does not want to convey that meaning). Since the readings of 1 form a superset of the readings of 2 and thus stand in an entailment relation (2 entails 1, but not the other way round), principles of scalar reasoning apply.

CS-II: NPI-implicatures

- Under the assumption that local implicatures are cancelled/supressed under downward entailing operators (incl. strong interrogatives), it follows that in weak NPI-licensing contexts, the implicature no longer arises that by uttering 1 the speaker conveys that she is not committed to the truth of 2 (cf. Gazdar 1979, Sauerland 2004ab, Gajewski & Sharvit 2008, 2012, amongst many others).

- Consequently in weak NPI-licensing contexts both 1 and 2 can give rise to a ¬>∃ reading.

CS-II: NPI-implicatures

- If the ill-formedness of light negation in non-NPI-licensing contexts is due to an implicature, it is expected that this implicature can be cancelled.

- This is indeed the case. Note that this shows that the NPI-effect of light negation must indeed be different from other NPIs.

CS-II: NPI-implicatures

Q. Kann Fritz nicht eine Fremdsprache?
   Knows Fritz not a foreign.language
   'Doesn't Fritz know a foreign language?'

A. Nein, Fritz kann nicht eine Fremdsprache. Er
   kann keine Fremdsprache.
   No, Fritz knows not a foreign.language. Er
   knows no foreign.language
   No, Fritz doesn't know a foreign language.
   Fritz knows no foreign language.'

CS-II: Conclusions

- There is no need to assume that German and Dutch have a homophonous second negative marker that is an NPI, as has been argued by Bhatt & Schwarz (2006).

- Instead, it is possible to account for all so-called light negation effects by alluding to pragmatic inferences that apply to a particular utterance containing light negation and its (morpho-syntactic) competitors.

CS-II: NPI-implicatures

- But then, the distribution and interpretation of a construction that behaves like a weak NPI follows from completely different sources than other weak NPIs.

- The only common property that is shared is that downward entailing operators both reverse entailment relations and surpress/ cancel implicatures.

General conclusions

- The two case-studies provide evidence for a pluriform landscape of NPIs and PPIs.

- NPI-hood knows a variety of sources

- Competing theories of NPI-hood are not necessarily in conflict.

- The guiding intuition that if a potential type of negative dependency is not ruled out on independent (formal, functional or cognitive) grounds, it is predicted to be attestable, proved to be empirically fruitful.

Thank you!