EGG16

Lecture V – The NALL Problem

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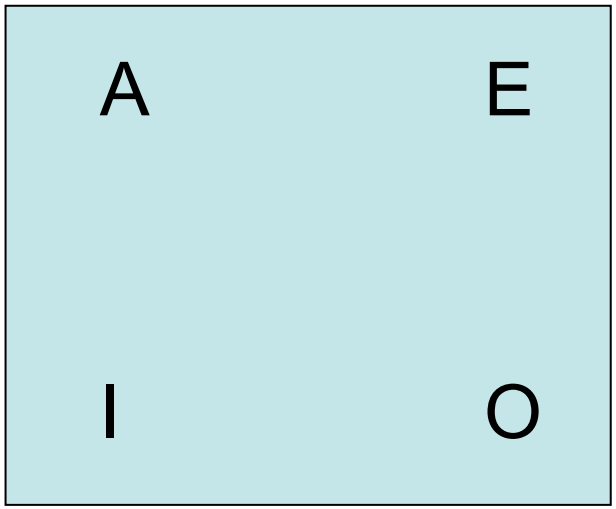
The problem

All men are ill

No man is ill

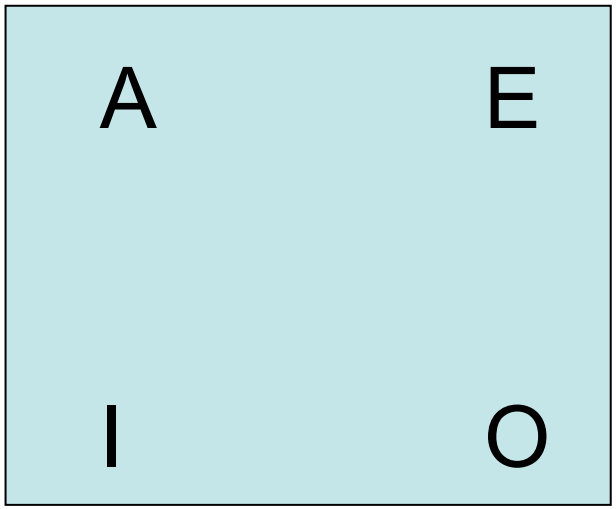


Some men are ill

Not every man is ill

The problem

All/every **No**

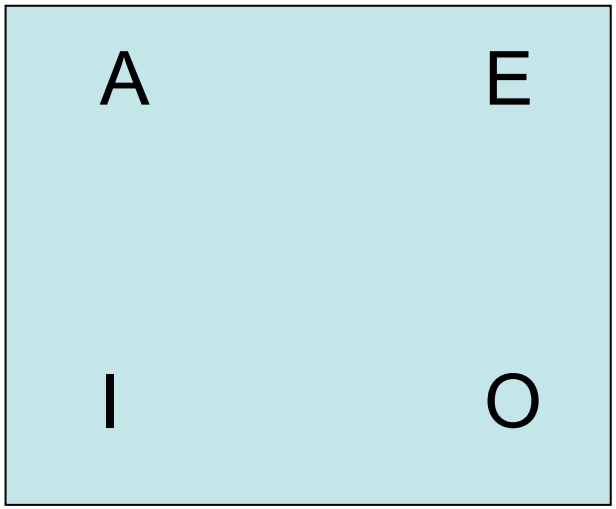


Some ***Nall**

The problem

John and Mary are ill

(Neither) John nor Mary is ill



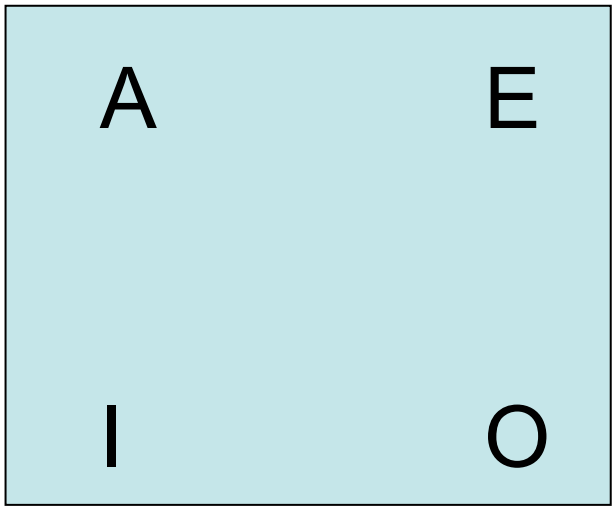
John or Mary is ill

John and Mary aren’t (both) ill

The problem

And

Nor



Or

***Nand**

The problem

There is no designated word for the O-corner in the S*quare of Opposition*

- No *vs.* *Nall
- Never *vs.* *Nalways
- Nor *vs.* *nand
- None *vs.* *noth

The history of *O

- Synchronic accounts:

  Blocking accounts: Huybregts 1979, Barwise & Cooper 1981, Horn 1989 *et seq*, Jaspers 2007

  Geometrical accounts: Jespersen 1924, Löbner 1985 *et seq*
- Diachronic account: Hoeksema 1999

Blocking accounts

- Horn 1989 *et seq*:

(1) Some man is ill

Assertion: At least one man is ill

Implicature: Not every man is ill

(2) Nall man is ill

Assertion: At least one man is not ill

Implicature: Not every man is not ill

(= some man is ill)

Blocking accounts

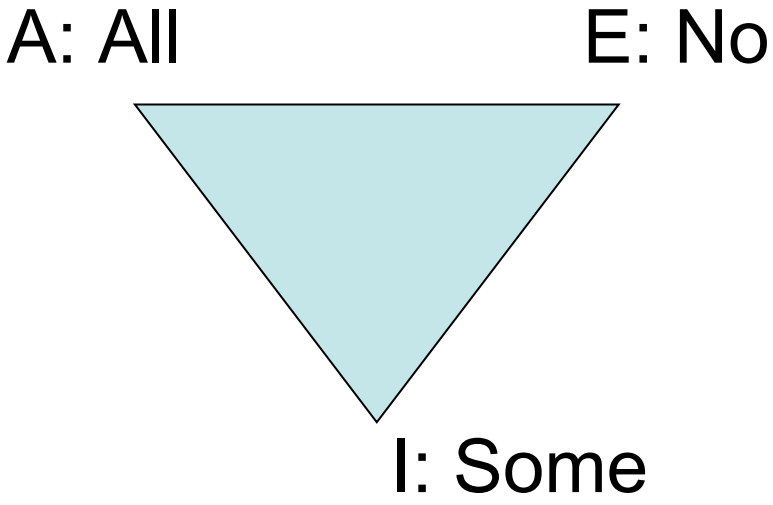
- Some and nall are pragmatically (though not semantically) equivalent
- Negation is always marked
- Lexicalisation selects the unmarked candidate

Blocking accounts

- Some and nall are not always pragmatically equivalent (e.g. in cases of partial knowledge)
- Moreover, if some blocks nall, why doesn't it block not every?

Geometrical accounts

- The Square of Opposition should be replaced by a triangle (Jespersen 1924, De Morgan 1958, Horn 1989, Seuren 2002);



Geometrical accounts

- If there is no O-corner left, there is no O-problem to begin with.
- But: even though the O-problem may have disappeared, the question remains open, as to why something with the logically accessible meaning of not all cannot be lexicalized (as nall).

Diachronic account

- Hoeksema 1999: No principled reason why nall cannot exist; it is only a very unlikely thing to happen
- Nall could only result from lexical merger of ne + all, or from reinterpretation of a universal NPI (under the scope of negation) into a negative quantifier. Both types are particularly rare

Diachronic account

- However, not + every in current English is highly frequent
- The typological relation, as it stands now, quite strongly points in the direction of nall being universally ruled out
- The analysis does not naturally extend to other absent negated items, such as *nand

Intermediate conclusions

- Current accounts do not show why nall should functionally/pragmatically be ruled out.
- Therefore, *nall requires a diachronic account (i.e. it could never have been derived as a result of a diachronic lexicalisation process)
- But, such an account should explain why such a word-formation process is impossible, not why it is improbable

Intermediate conclusion

- **Desideratum**:

  A diachronic account that explains why lexicalisation of *nall/*nand is impossible

Roadmap

- To determine what would be the necessary input for a diachronic lexialisation process that would create words such as nall;
- To show this required input never emerges in natural language;

Preparing the ground

- Negative prefixes, such as Dutch n- in niets (“NEG Something = nothing”) are not productive morphemes: niets ≠ n+iets; n- is no longer productive and only occurs in limited class of lexical items.
- Niets resulted from lexical merger of a negative prefix ne- with an existential quantifiers in the time where ne- was still productive.

Preparing the ground

- ne + iets → niets
- Note that the input for the lexicalisation process involved cases of unfocussed iets. Since morphological words lack internal focus structure in general (cf. Williams) only unfocussed instances of NEG + ∃ can give rise to a single word NEG-∃.
- ne + IETS -/→ niets

Preparing the ground

- For the same reason, the necessary input for the formation of nall or nand must exist of instances of unfocussed NEG + all or NEG + and.

- ne + all → nall (*ne + ALL-/→ nall)
- ne + and → nand (*ne + AND-/→ nand)

Preparing the ground

- So the question as to why there are no expressions, such as nall or nand, reduces to the question as to why lexicalisations such as (1) are possible but lexicalisations such as (2) are not?

(1) neg + ∃ → n∃

(2) neg + ∀ → n∀

Preparing the ground

- Likewise for (3) and (4):

(3)neg + or → nor

(4)neg + and → nand

- The null assumption is that cases of (unfocussed) neg + and and neg + all (with a free morpheme neg) do not occur robustly enough to give rise to a process of lexicalisation

Account

- Why would such instances of a free negative morpheme plus (unfocussed) all/ and not occur?
- Investigate the syntactic and semantic properties w.r.t. negation of those phases of the language where the negative marker on an existential and or was still a free morpheme

Missing piece

- Bethiu *ne* upstandunt ungenêthege in urdeile, *ne* ôch sundege in gerêde rechtero

  Thus not rise.fut.3pl impious.pl.nom in judgement, neither sinners in councel justice.gen

  ‘Therefore the impious shall not rise in judgment, nor sinners in the council of the just’ 10th Cent. Dutch

Missing piece

- The free morpheme ne- is the negative marker, which is also used to express sential negation, by attaching it to the finite verb
- What are the syntactic and semantic characteristics of this negative marker ne?

Missing piece

- Free negative markers, like ne, that can be attached to finite verbs and other (quantificational or connective) elements are affixes
- Every language that exhibits a negative marker that is affixal is a Negative Concord language (cf. Zeijlstra 2004)

Missing piece

- Janek *(nie) pomaga nikomu — Polish
  Janek neg helps n-body
  'Janek doesn't help anybody'

- Gianni *(non) ha detto niente — Italian
  Gianni neg has said n-thing
  'Gianni didn't say anything'

Missing piece

- In languages with free affixal negative markers every sentence that induces sentential negation marks the verb for being negative as well.
- Sentences with a negative marker attaching to a quantifier or other scope-taking expression without marking the finite verb for negation as well are simply ungrammatical.

Missing piece

- Good negative sentences:

  [(neg-Q) neg-V (neg-Q)]

- Bad negative sentence:

  *[(neg-Q) V (neg-Q)]

Missing piece

- The input for a diachronic lexicalisation process can only be neg + Q, where this neg is an element that can only occur in a sentence that is already negative.
- **Neg attached to Q or a connective acts as a scope marker in an already negative sentence**

Account

- Let's start with negative connectives first:

(1) I didn't see John or Mary
(2a) I didn't see [John or Mary]
(2b) [I didn't see John] or [I didn't see Mary]

- Only in (2a) is or under the scope of negation.

Account

- Scope-marking or for negation yields a stronger reading than the sentence without it has

(3) I didn't see [John neg-or Mary]

→ I didn't see John or I didn't see Mary

- Marking or for negation is thus (functionally) motivated; it strengthens the sentence

Account

- But how'bout scope-marking of and?

(1) I didn't see John and Mary
(2a) I didn't see [John and Mary]
(2b) [I didn't see John] and [I didn't see Mary]

- Only in (2a) is and under the scope of negation.

Account

- Scope-marking and for negation, however, yields a weaker reading than the sentence without it has

(3) I didn't see [John neg-and Mary]

← [I didn't see John] and [I didn't see Mary]

- Marking and for negation is thus (functionally) unmotivated; it weakens the sentence

Account

- The same applies to some and all:

(1a) No man didn't come →
(1b) Some man didn't come

- Marking some for negation is (functionally) motivated; it strengthens the sentence

Account

(2a) Nevery man didn't come ←

(2b) Every man didn't come

- Marking all/every for negation is (functionally) unmotivated; it weakens the sentence

Account

Since in NC languages, negative marking of universal quantifiers / and in an already negative sentence, only weakens the readings of the sentence, this additional negative marking is unmotivated, hardly if at all present, and therefore not a candidate for further lexicalisation (cf. Krug 1998)

Account

Even though an NC sentence with a negated universal quantifier is weaker than its counterpart without the negative marker on the universal, it could be functionally adequate if it is accorded with an implicature of the form ‘not all, but some’

Account

(1) Everybody didn't come

(2) Not everybody came

(3) Not EVERYbody come; only John came

(1) → (2)

(1) -/→ (3)

Account

- However, to achieve those readings, every (and for that matter and) must be focussed
- But focussed [neg + [$_{FOC}$ ∀]], as established before, cannot be the input of a lexicalisation process!
- Consequently, the only instances of neg + all/and that would be functionally motivated are the same ones that cannot give rise to a process of lexicalisation.

Conclusions

- Nall and nand should have been derived from a lexicalisation process:

  neg + all/and → nall/nand
- Neg is a scope marker in an already negative sentence
- Additional negative marking of (unfocussed) all and and only yields weakened readings, which could be the input of a diachronic lexicalisation process, is functionally ill-motivated and thus not expected to occur
- Focussed, neg + ALL/AND, being functionally well-motivated, is expected to occur, but cannot be the input for a lexicalisation process