# A phrasal construction for an *ex quōlibet falsum* inference

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## Introduction

## The Emperor-of-China construction (EoC-Cx)

Implicational/dann 'then' variant (then-EoC-Cx):

(1) Also, wenn das stimmt, bin ich der Kaiser von China. thus if this is correct am I the emperor of China 'This cannot be correct.' (lit.: 'If this is correct, I am the emperor of China.') (deTenTen23)

Conjunctive/und 'and' variant (and-EoC-Cx):

(2) A: "Wir verwenden die besten und teuersten Materialien f\u00fcr unsere T-Shirts ..."

'We use the best and most expensive materials for our t-shirts '

B: Und ich bin der Kaiser von China! and I am the emperor of China

'This is nonsense!' (lit.: 'And I am the emperor of China.')
(deTenTen23)

#### Plan for the talk

#### • Form:

- ► then-EoC-Cx: if <Antecedent> (then) <Subject> be the emperor of China.
- ► and-EoC-Cx: <Antecedent> and <Subject> be the empreror of China.
- Research question 1: Is the EoC-Cx an idiosyncratic phrasal construction? ⇒ Yes!

#### Meaning:

- The EoC-Cx expresses a negation or strong rejection of the antecendent.
- Research question 2: Does the EoC-Cx express a negation? ⇒ No!

#### Method:

- Exploratory corpus data (deTenTen23)
- Modeling within a constructional, constraint-based framework
- ...with an explicit semantics-pragmatics interface

#### Overview

- Introduction
- Syntax
- Semantics
- Pragmatics
- Conclusion

# **Syntax**

### Corpus distribution: enTenTen23

- Query 1: sein der Kaiser von China 'be the emperor of China'
   V2 Subject-Verb: 50 hits; 20 relevant
- Query 2: sein \* der Kaiser von China V2 - Verb-Subject: 40 hits; 20 relevant
- Query 3: der Kaiser von China sein V-Final: 40 hits; 0 relevant

#### Results:

- in all relevant examples: subject ich 'l'
- all relevant Subject-Verb examples with und 'and'
- all relevant Verb-Subject examples with dann 'then'
- Only in matrix clauses
- Antecedent typically a clause

## HPSG specification 1 (syntax)

- idiosyncratic construction: Richter & Sailer (2009): COLL value *ne-list*
- Only in matrix clauses: unembedded-sign (Richter, 1997; Höhle, 2019)
- Lexically required material: via LEXEME values
- Subject *ich* 'I': specified in the SUBJ feature.
- To be dealt with through the semantics:
  - all relevant Subject-Verb examples with und 'and'
  - ▶ all relevant Verb-Subject examples with dann 'then'
  - Antecedent typically a clause

## **Semantics**

## Possible constructional meanings

- (3) a. Wenn Alex einen Preis gewonnen hat, if Alex has a price won bin ich der Kaiser von China! am I the emperor of China (then-EoC-Cx)
  - Alex hat einen Preis gewonnen
     Alex has a price won
     und ich bin der Kaiser von China!
     and I am the emperor of China (and-EoC-Cx)
  - At-issue negation of the antecedent:
     I am convinced that Alex did not win a price.
  - Negated or inherently negative matrix predicate: I strongly doubt that Alex has won a price.
  - Exclamative meaning (just use-conditional):
     No way has Alex won a price!

## Negative Polarity Items (NPIs)

- NPIs: jemals 'ever', einen finger krumm machen 'lift a finger', ...
- NPIs are not felicitous in simple, affirmative clauses, but require a licenser:
  - (4) a. \*Alex has ever helped Kim. / Nobody has ever helped Kim.
    - b. \*Alex has lifted a finger to help Kim./ Alex hasn't lifted a finger to help Kim.
- Clause-mate negation is a licenser for all NPIs (roughly)
- There is a variety of other licensers and NPIs differ with respect to their exact licensing requirements (Hoeksema, 2024)
  - (5) a. Few people have ever helped Kim./ \*Few people have lifted a finger to help Kim.
    - b. \*Alex might have ever helped Kim./ Alex might have lifted a finger to help Kim.

## NPI licensing in phrasal constructions

Phrasal construction can in principle license NPIs. In those cases, there meaning representation can be assumed to be (constructionally)

- I'll be damned if S licensed virtually any NPI in the if part (von Bergen & von Bergen, 1993):
  - (6) I'll be damned if I ever help you/ lift a finger to help you!
- The Incredulity Response Construction (Akmajian, 1984; Lambrecht, 1990)
  - (7) Ich und jemals einen eigenen Garten haben?!I and ever an own garden have (deTenTen23)

## NPIs in the three potential meanings of the EoC-Cx

- At-issue negation of the antecedent: NPIs should be licensed.
- Negated or inherently negative matrix predicate: NPIs should be licensed:
  - (8) Ich bezweifle, dass Alex jemals einen Preis gewonnen hat. / I doubt that Alex ever a price won has / für Kim einen Finger krumm machen würde. for Kim a finger lift would 'I doubt that Alex has ever won a Price/ would ever lift a finger for Kim.'
- Exclamative meaning: NPIs should be licensed
  - (9) Als ob Alex jemals einen Preis gewonnen hat! / für Kim einen as if Alex ever a price won has / for Kim a Finger krumm mache würde! finger lift would 'No way Alex has ever won a price/ would ever lift a finger for

## NPI licensing in the then-EoC-Cx

NPIs can occur in the antecedent of the *then*-EoC-Cx.

```
(10) Wenn Alex jemals einen Preis gewonnen hat, .../
if Alex ever a price won has
Wenn Alex für Kim einen Finger krumm macht, ...
if Alex for Kim a finger lifts
... bin ich der Kaiser von China.
am I the emperor of China
```

## NPI licensing in the then-EoC-Cx

NPIs can occur in the antecedent of the *then*-EoC-Cx.

But: NPIs also ok in ordinary if clauses:

- (11) Wenn Alex jemals einen Preis gewonnen hat, bin ich beindruckt. if Alex ever a price won has am I impressed 'I am impressed if Alex has ever won a price.'
- (12) Wenn du für Kim einen Finger krumm machst, kannst du mir if you for Kim a finger lifts can she me auch helfen. also help
  - 'If Alex lifts a finger for Kim, you can help me as well.'

## NPI licensing in the and-EoC-Cx

No NPI licensing at all in the and-EoC-Cx:

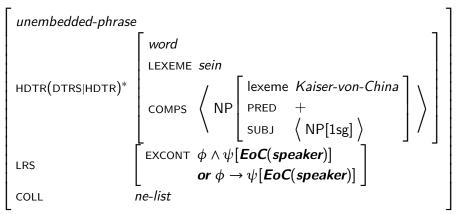
- (13) \*Alex hat jemals einen Preis gewonnen und ich bin der Kaiser Alex ahs ever a price won and I am the emperor von China! of China Intended: 'I doubt that Alex has ever won a price.'
- (14) \*Alex hat für Kim einen Finger krumm gemacht und ich bin der Alex has for Kim a finger lifted and I am the Kaiser von China! emperor of China Intended: 'I doubt that Alex has lifted a finger for Kim.'

This is exactly what we find in ordinary conjucion!

## NPI licensing: Summary

- No support for a special constructional meaning that includes a negation.
- The then-EoC-Cx behaves like an ordinary conditional.
- The and-EoC-Cx behaves like an ordinary conjunction.
- ⇒ We can just assume a literal semantics of the construction

## HPSG specification 2 (at-issue semantics)



- Semantics: Specfying the overall content (EXCONT in Lexical Resource Semantics) as:
  - either a conjunction: all relevant Subject-Verb examples with und 'and': Conjunction
  - or an implication: all relevant Verb-Subject examples with dann 'then'

# **Pragmatics**

## Preview of the analysis

#### Compositional Semantics:

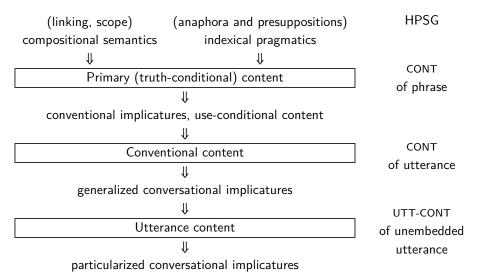
- (15) Wenn Alex das Rennen gewinnt, bin ich der Kaiser von China.
   'If Alex wins the race, I am the emperor of China.'
   At issue: win(alex) → EoC(speaker)
- (16) Alex gewinnt das Rennen und ich bin der Kaiser von China. 'Alex wins the race and I am the emperor of China.' win(alex) ∧ EoC(speaker)

#### Pragmatics:

- Presupposition: The subject is not the emperor of China
- Use-conditional meaning: Speaker does not want antecedent clause to be integrated into the Common Ground
- Generalized conversational implicatures: Inference associated with coordination, i.e. turning a coordination into an implication.

## Semantics-pragmatics interface

Levinson (2000), extended in Sailer (2021, 2024)



### Presupposition: I am not the emperor of China

(17) Wenn Alex das Rennen gewinnt, bin ich der Kaiser von China.

'If Alex wins the race, I am the emperor of China.'

At issue:  $win(alex) \rightarrow EoC(speaker)$ 

Presupposition: ... $\land \neg EoC(speaker)$ 

At the level where the presupposition is accommodated (at an S-node in the scope of quantifiers/negation/modal/...):

(18) Wenn Alex das Rennen gewinnt, bin ich der Kaiser von China.

'If Alex wins the race, I am the emperor of China.'

At issue:  $win(alex) \rightarrow EoC(speaker)$ 

Presupposition: ¬EoC(speaker)

Clausal content:  $(win(alex) \rightarrow EoC(speaker)) \land \neg EoC(speaker)$ 

The clausal content is only true when win(alex) is false.

### Presuppositions

- Sailer & Am-David (2016), Rizea & Sailer (2020)
- Introduced on a PRESUP(POSITION) list (and their subexpressions on the PARTS list
- (19) Percolation and retrieval for PRESUP (Sailer & Am-David, 2016, 653):
  - In each phrase: All elements from the daughters' PRESUP lists are on the mother's PRESUP list unless the phrase is a clause and they appear in the clause's EXCONT value. In the latter case, they occur in the scope of some appropriate semantic operator.

#### and-EoC-Cx

(20) Alex gewinnt das Rennen – und ich bin der Kaiser von China.

'Alex wins the race – and I am the emperor of China'
at issue: win(alex) und EoC(speaker)
presupposition: ... ∧¬EoC(speaker)
After accommodation:
win(alex) ∧ (EoC(speaker)∧¬EoC(speaker))

This formula is always false, independently of the truth value of win(alex)

## Generalized conversational implicatures (GCI)

- Optional, enriching a meaning globally!
- Evidence for their relevance for truth-conditional meaning (Levinson, 2000; Carston & Hall, 2012)
  - (21) a. It is better to [drive and drink] than to [drink and drive].
    - She didn't write three books, she wrote four books (or maybe even more).

## GCI in Sailer (2021)

- GCI:  $\alpha \mapsto_{GCI} \beta$
- Integration only at the utterance content
  - (22) Sailer (2021, 355)
    Given two formulæ  $\alpha, \beta$ , a rewriting rule for a generalized conversational implicature has the form  $\alpha \mapsto_{GCI} \beta$ .
    Such a rule means: If  $\alpha$  occurs in the conventional content, it can optionally be replaced with  $(\alpha \land \beta)$  in the utterance content.
- Status of GCIs: Analoguous to post-lexical rules in phonology (Höhle, 2019)

## GCI for conjunction

- Horn (2004)
  - (23) a. They got a baby and married.→<sub>GCI</sub> They got a baby and then/therfore married.
    - b. The earth rotates and we experience night and day.
       →<sub>GCI</sub> The earth rotates and therefore we experience night and day.
- Suggested GCI:  $(\phi \land \psi) \mapsto_{GCI} (\phi \rightarrow (\phi \land \psi))$
- Required change in the theory:
  - ▶ GCI:  $\alpha \mapsto_{GCI} \beta$  where  $\alpha$  is a subexpression of  $\beta$ .
  - Such a rule means: If  $\alpha$  occurs in the conventional content, it can optionally be replaced with  $\beta$  in the utterance content.

#### Back to the and-EoC-Cx

(24) Alex gewinnt das Rennen - und ich bin der Kaiser von China. 'Alex wins the race – and I am the emperor of China' at issue: win(alex) und EoC(speaker) presupposition: ...  $\land \neg EoC(speaker)$  After accommodation:  $win(alex) \land (EoC(speaker) \land \neg EoC(speaker))$  GCI:  $(\phi \land \psi) \mapsto_{GCI} (\phi \rightarrow (\phi \land \psi))$   $win(alex) \rightarrow (win(alex) \land (EoC(speaker) \land \neg EoC(speaker)))$ 

This formula is only true if win(alex) is false.

#### Use-conditional content

- VERUM effect of the EoC-Cx
- Gutzmann et al. (2020), Sailer (2022):
  - (25) Alex HAT das Rennen gewonnen.

Alex HAS the race won

at issue: Alex won the race

Contextually salient: Alex did not win the race.

VERUM: use-conditional meaning: Do not integrate "Alex did

not win the race" into the common ground.

#### Use conditional content of the EoC-Cx

- Antecedent proposition is contextually salient.
- EoC-Cx's use conditions say that the antecedent should not be integrated into the common ground.
- (26) Alex gewinnt das Rennen und ich bin der Kaiser von China. Alex wins the race and I am the emperor of China Contextually salient: win(alex)

  Use-conditional content:
  prevent-from-CG-integration(^win(alex))

#### Truth conditions and use conditions of the EoC-Cx

- (27) Wenn Alex das Rennen gewinnt, bin ich der Kaiser von China. 'If Alex wins the race wins, I am the emperor of China' Alex gewinnt das Rennen – und ich bin der Kaiser von China. 'Alex wins the race – and I am the emperor of China.'
  - a. Truth conditions: [[win(alex)]] = 0
  - b. Use conditions: **prevent-CG-integration**( $^{\wedge}$ **win**(**alex**))

## HPSG specification 3 (pragmatics)

## **Conclusion**

#### Conclusion

- Neither syntax nor semantics irregular!
- But still: construction with idiosyncratic properties:
  - unembedded sign, V2
  - presupposition and use-conditional meaning
- The interaction of the various meaning components trigger conversational inferences that lead to the negation-like effect of the construction.
- Since this effect is conversational, we expect it to arise also spontaneously, with other lexicalizations:
  - (28) ... und ich bin der Kaiser von China. Und der Schwiegersohn des Tankwarts meines Kollegen ist der Zauberer von Oz.
    - "...and I am the emperor of China. And the sun-in-law of the gas station attendant of my colleague is the Wizard of Oz."

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