

1. The phenomenon: German 'man' in episodic sentences

- **German 'man'** is a **dedicated impersonal pronoun**; like English *one*, it can occur in generic sentences denoting "people in general":
- (1) **Man** muss sich die Zähne putzen.
One has to brush one's teeth.
- **Dedicated impersonal pronouns**: generally restricted to talk about humans, unspecified for number
⇒ the brushing in (1) and the calling in (2) is done by one or more humans (see Cabredo Hofherr 2015, Fenger 2018)
- **German 'man'**: only nominative; suppletive forms in the accusative (i.e., *einen*) and dative (i.e., *einem*)
⇒ suppletive forms do not occur in the existential use (see discussion in Kratzer 1997)
- Unlike English *one*, German *man* also readily **occurs in episodic sentences**: "existential use" (\approx 'someone')
- (2) **Man** hat für dich angerufen.
IMP has for you called
'IMP called for you.'
(Fenger 2018:297)

2. 'Man' as an existential quantifier?

- **Proposal**: In episodic sentences, *man* denotes an **existential quantifier** over humans (\approx *someone*).
- (3) $\llbracket man_{ex} \rrbracket^c = \lambda P. \exists x [\text{human}(x) \wedge P(x)]$
- **Problem**: *man* does not scopally interact as expected with other quantifiers or negation:
it only has low scope (see Zifonun 2000)
- (4) **Man** hat mich dreimal angerufen.
Jemand hat mich dreimal angerufen.
'Someone called me three times.'
- (5) **Man** hat bei uns nicht eingebrochen.
Jemand hat bei uns nicht eingebrochen.
'Someone didn't break in at our place.'
- ⇒ *jemand* can scope over *dreimal* and *nicht*
⇒ *man* only allows for low scope

Upshot: *Man* in episodic sentences does not behave like a simple existential quantifier.

3. 'Man' as an existentially closed variable?

- **Proposal**: *man* contributes an **individual variable** x that is bound by **existential event closure**
⇒ captures the obligatory low scope (see e.g., Malamud 2012)
- (6) $\llbracket (2) \rrbracket^c = \exists e, x [\tau(e) < c_T \wedge \text{call}(c_A)(x)(e)]$
- IN WORDS: there is an event e and an individual x such that the runtime of e precedes the utterance time c_T , and e is a calling-event by x in order to reach the addressee c_A .
- **Problem**: The "referent" of *man* **cannot be picked up by a pronoun** in the next sentence – unlike for the event.
- (7) Jones buttered a piece of toast. He did **it** with a knife in the bathroom. (Davidson 1967:37)
- (8) Man hat für dich angerufen.
#**Er** wollte über das Projekt reden.
'IMP called for you. He wanted to talk about the project.'

Upshot: Any existential force attributed to *man* must not introduce anaphorically accessible individuals.

4. 'Man' as a contextually interpreted free individual variable?

- **Proposal**: *man* contributes an individual variable x that is interpreted arbitrarily via the variable assignment g .
- **Worry**: *man* \neq 3rd sg personal pronoun
- deictic 3rd sg pronouns are traditionally analyzed as variables interpreted in context via g . (see Heim & Kratzer 1998)
- Referents of 3rd sg pronouns are anaphorically accessible (cf. (8)).
- (9) He called for you. **He** wanted to talk about the project.
- **Problem**: unlike type- e -expressions, *man* **cannot associate with 'als'-phrases** (Kratzer 1997, Zobel 2018)
- (10) Gestern verliehen wir uns in der Innenstadt.
#**Als Einheimischer** zeigte man uns den Weg.
(**Cannot mean**: As a local, a person showed us the way.)

Upshot: A context-based analysis must not use the same components as a type- e -variable analysis for pronouns.

5. Proposal: "existential" 'man' as an operator

- **Proposal**: *man* is an operator (type $\langle evt, vt \rangle$) that fills the highest argument slot of a one-place predicate P with the **maximal individual** that **participates in the event** e in the role belonging to the slot (cf. Chierchia 1995)
- (11) $\llbracket man_{ex} \rrbracket^c = \lambda P_{\langle e, vt \rangle}. \lambda e_v. P(\max[\lambda y. P(y)(e)])(e)$ (output: set of events $\langle v, t \rangle$)
- (12) $\llbracket (2) \rrbracket^c = \exists e [\tau(e) < c_T \wedge \text{call}(c_A)(\max[\lambda y. \text{call}(c_A)(y)(e)])(e)]$
IN WORDS: there is an event e such that the runtime of e precedes the utterance time c_T , and e is a calling-for-the-addressee-event by the maximal individual who called the addressee c_A in e .
- **Maximal individual?** *man* is compatible with a semantically plural subject, (13), and it is arguably always the maximal plurality involved in the event that is understood, (14).
- (13) **Man** hat sich gegenseitig gedeckt. (14) Gestern hat **man** mit Streichhölzern die Uni angezündet.
'IMP covered for each other.' ??Die anderen Täter haben Feuerzeuge benützt.
'Yesterday, IMP set the uni on fire using matches. The other culprits used lighters.'

6. Properties of $\max[. . .]$

- The value of $\max[. . .]$ **depends only on P and e** :
⇒ only information about the inferred individual is their participation in e
⇒ captures the **similarity to passivization with an implicit agent** (see König & Mauner 1999, Cabredo-Hofherr 2010, Zobel 2017)
- The **identity of the individual** often cannot and also does not have to be made explicit (\rightsquigarrow "existential").
⇒ cf. conversational backgrounds of modals (e.g., Kratzer 2012)
- $\max[. . .]$ is **compatible with additional inferences** about its value based on further contextual information:
- (15) Gestern war Vorstandssitzung.
Man hat Peters Antrag bewilligt.
'Yesterday the board meet. IMP accepted Peter's proposal.'
- ⇒ IMP \rightsquigarrow the members of the board
⇒ identifiability of $\max[. . .]$ depends on the context

7. "Existential" vs. generic 'man'

- The **variable-based analysis** in (6) provides a unified way to capture *man* in generic sentences
⇒ binding of x by the generic operator *Gen*
- (16) $\text{Gen } x [\text{has-to-brush-teeth}(x)]$
- The **operator-based analysis** in (11) contains no bindable variable for *Gen*
⇒ *man* has to be analyzed as polysemous
⇒ only generic *man* contributes a variable
- **Positive consequence**: captures that existential *man* cannot be bound by quantifiers (cf. Zobel 2017)
- (17) *Keiner₁ behauptet, dass **man**₁ die Uni angezündet hat.
(**Cannot mean**: No one₁ claims they₁ set the uni on fire.)

8. Summary: the proposal in brief

- **German 'man' is polysemous**: it contributes a variable in its generic use and an operator in its "existential" use.
- The "existential use": the highest verbal argument is set as **the maximal individual involved in the event** described by the predicate **in the relevant role**; no variable or existential quantifier is involved in the interpretation.
- If the only information about the individual is its participation, the interpretation intuitively corresponds to "someone".

References

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