

# Modal particles, stress, and sentence mood

A use-conditional approach

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Graduiertenkolleg »Sentence Types: Variation and Interpretation«

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# Outline

- 1 Introduction
- 2 Verum Focus and VERUM
- 3 Stressed MPs and VERUM
- 4 Hybrid Semantics
- 5 Outlook

# Introduction

## Properties of MPs

- (1)
- a. MPs are not inflectable.
  - b. MPs cannot receive main stress.
  - c. MPs occur only in the so-called middle field (Germ. *Mittelfeld*).
  - d. MPs cannot be coordinated.
  - e. MPs cannot be expanded.
  - f. MPs cannot be negated.
  - g. MPs cannot be questioned.
  - h. MPs have sentential scope.
  - i. MPs are sentence mood dependent.
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## MPs and stress – the »standard view«

MPs cannot receive main stress. If they are stressed, they are no MPs anymore.

*halt*

- (2) a. David ist **halt** ein Idiot.  
*David is MP an idiot*  
 »(As a matter of fact)  
 David is an idiot«
- b. \*David ist **HALT** ein Idiot.  
*David is MP an idiot*

*vielleicht*

- (3) a. David ist **vielleicht** ein Idiot!  
*David is MP an idiot*  
 »David is an idiot!«
- b. David ist **VIELLEICHT** ein Idiot.  
*David is perhaps.ADV an idiot*  
 »Perhaps, David is an idiot.«

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ja/JA

(Meibauer 1994: 88)

- (4) a. Fritz hat **ja** Nastassja geheiratet.  
*Fritz has MP Nastassja married*  
»(As you know) Fritz has married Nastassja«.
- b. Komm **JA** rechtzeitig nach Hause!  
*come.IMP MP in time to home*  
»Come back home in time!«

*doch/DOCH*

- (5) a. David kommt **doch** vorbei.  
*David comes MP around*  
»David comes around (as you should have known)«
- b. David kommt **DOCH** vorbei.  
*David comes MP around.*  
»After all, David comes around.«

- Other candidates for MPs that can be stressed may be *denn, eigentlich, wohl* ....
- However, *JA* seems to be the only stressed particle, that is widely accepted to be an MP.

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Questions posed by stressed MPs

(Meibauer 1994: 20)

- (a) What is the function of the stress?
- (b) Has the stress an effect on the part of speech of the particle or on its identity?  
→ What is the relation between an MP and its stressed »variant«?

Three possible answers to (b)

(Meibauer 1994: 132)

- (i) *JA* and *ja* are polysem (i.e. one lexical entry with two related variants).
- (ii) *JA* and *ja* are homonym (i.e. two distinct lexical entries).
- (iii) *JA* and *ja* are identical (difference in meaning is contributed by the stress).

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## My answers

- (a) The stress is a realization of **VERUM** (Höhle 1992).
- (b) No, the meaning of a stressed MP is just the meaning of the MP plus the effect contributed by VERUM (i.e. an answer of type (iii)).

# Verum Focus and VERUM

# Verum focus

Verum focus is a special kind of focus that somehow emphasizes the truth of the propositional content of an utterance (Höhle 1992).

# F-verum focus

One way to realize verum focus is to stress the finite verb in C. This is possible in all finite V1/2-sentence types.

## F-verum focus in V2-declaratives

- (6) A: David smells like a zombie.  
B: David **IST** ein zombie.  
*Davis is a zombie.*  
»David is indeed a zombie.«

## F-verum focus in *wh*-interrogatives

- (7) A: I haven't kicked the dog.  
B: Wer **HAT** den Hund denn getreten?  
*who has the dog MP kicked*  
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- (8) A: I have heard that Karl kicked the dog.  
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## F-verum focus in imperatives

- (9) **NIMM** dir endlich den Stuhl!  
*take.IMP you finally the chair*  
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- F-verum focus is also possible in finite V2-optatives and V1-conditionals.

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More curiously, verum focus is also possible on the complementizer of embedded verb-last clauses.

## C-Verum in *dass*-VL-clauses

- (10) A: David smells like a zombie.  
B: Ich denke, **DASS** er ein zombie ist.  
*I think that he a zombie is*  
»I think that he is (indeed) a zombie«

## C-Verum in *ob*-VL-clauses

- (11) A: David smells like a zombie.  
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- To account for this stress pattern and its meaning, Höhle (1992) introduces a semantic operator VERUM.
- VERUM can be realized by stressing either the finite verb in V1/V2-clauses or the complementizer of embedded VL-clauses.
- Höhle (1992) describes the meaning of VERUM as an emphasis on the truth of the propositional content of the sentence.

## Paraphrases for VERUM

(cf. Höhle 1992)

- (12)
- a. David **IST** ein zombie.  
    ↪ **It is true**, that David is a zombie.
  - b. **IST** David ein zombie?  
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  - c. **NIMM** den Stuhl!  
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- Romero & Han (2004) show that VERUM can also be realized by certain morphemes (e.g. *really*) or by word order variation like negation preposing.
- They provide a formal definition of VERUM as a *conversational epistemic operator* that is »used not to assert that the speaker is entirely certain about the truth of  $p$ , but to assert that the speaker is certain that  $p$  should be added to the Common Ground (CG).« (Romero & Han 2004: 627).

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$$(13) \quad \llbracket \text{VERUM}_i \rrbracket^{gx/i} = \lambda p_{(s,t)} \lambda w. \forall w' \in \text{Epi}_x(w) [\forall w'' \in \text{Conv}_x(w') [p \in \text{CG}_{w''}]] \\ = \text{FOR-SURE-CG}_x \\ \rightsquigarrow \text{»I am sure that we should add the proposition } p \text{ to the common ground.«}$$

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# Stressed MPs and VERUM

- That the stress of *JA* is somehow related to the phenomenon of verum focus is already observed by Meibauer (1994: 130, 144).
- The contribution of *JA* is very similar to that of VERUM.

*JA*

- (14) A: David smells like a zombie.  
B: David ist *JA* ein zombie.  
*Davis is MP a zombie.*  
»David is (indeed) a zombie.«
- B': Ich denke, dass David *JA* ein Zombie ist.  
*I think that David MP a zombie is*  
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- Furthermore, it is impossible to have both *JA and* verum focus in the same clause.

### \*JA+VERUM

(15) A: David smells like a zombie.

B: \*David **IST JA** ein Zombie.

*David is MP a zombie*

B': \*Ich denke, **DASS** David **JA** ein Zombie ist.

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→ I suggest to treat the stress of *JA* as a way of realizing VERUM.

- In the case of standard verum focus, VERUM gets embedded under the sentence mood operator.
- In the case of *JA*, VERUM attaches to *ja*.
- According to Kratzer's (1999, 2004) analysis of *ja* as an expressive, *ja* does not contribute to the propositional content of an utterance but expresses a distinct proposition of its own (and therefore gets not embedded under the sentence mood operator).
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- Assuming a deontic-epistemic analysis of sentence mood operators as proposed by Truckenbrodt (2004, 2006a,b), we arrive at the following picture.

### Simple declarative

(16) David ist ein zombie.

↷ *The speaker wants the hearer to know that David is a zombie.*

### F-Verum

(17) David **IST** ein zombie.

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*ja*

(18) David ist *ja* ein zombie.

↷ *The speaker wants the hearer to know that David is a zombie and the hearer may already have known that David is a zombie.*

*ja+VERUM=JA*

(19) David ist *JA<sub>VERUM</sub>* ein zombie.

↷ *The speaker wants the hearer to know that David is a zombie and the hearer may already have known that the speaker is sure that it should be common ground that David is a zombie.*

ja

(18) David ist ja ein zombie.

↷ *The speaker wants the hearer to know that David is a zombie and the hearer may already have known that David is a zombie.*

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(19) David ist JA<sub>VERUM</sub> ein zombie.

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# Hybrid Semantics

# The basic idea

In hybrid semantics, the meaning of a sentence is given by its truth conditions *and* its use conditions (Kaplan 1999).

## Truth conditions

(20) »David ist ja ein Zombie« is true iff David is a zombie.

## Use conditions

(21) »David ist ja ein Zombie« ist felicitously uttered iff the speaker wants the hearer to know that David is a zombie and the hearer could already have known that David is a zombie.

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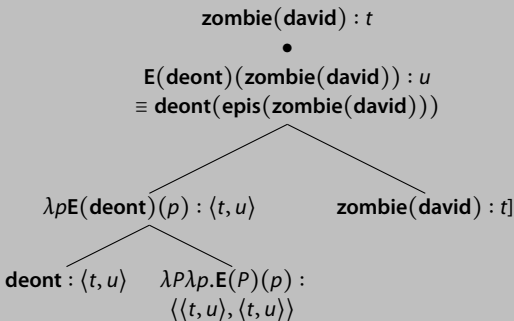
## How to formalize hybrid semantics?

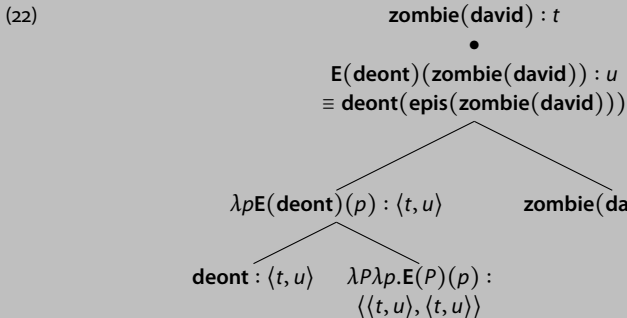
To formalize the idea of hybrid semantics, I make use of a logic  $\mathcal{L}_{TU}$  that extends a standard type-driven, model-theoretic logic by the introduction of ...

- Types for use-conditional expressions (new basic type  $u$  for use-values)
- Corresponding domains for use-conditional expressions ( $D_u = \{\checkmark, \zeta\}$ )
- Tree-admissibility conditions that regulate how use-conditional expressions compose with other expressions (inspired by Potts 2005 and modified).
- A mechanism to interpret semantic parsetrees (inspired by Potts 2005).

*David ist ja ein Zombie.*

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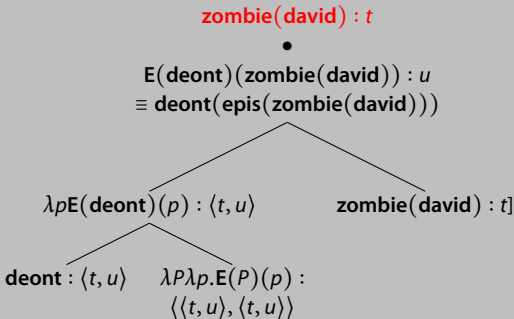
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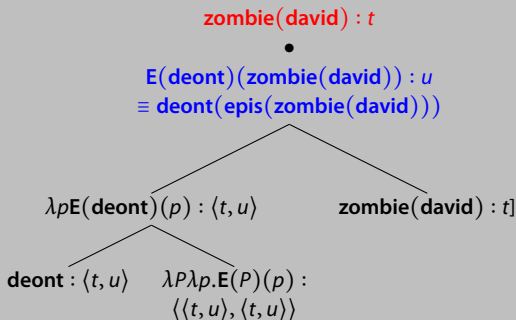
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- **VERUM:**  $\langle\langle t, u \rangle, \langle t, u \rangle\rangle$  attaches either to the deontic-epistemic sentence mood operator, or to *ja* and embeds the **FOR-SURE-CG** predicate under them.

## VERUM in C

- (24) **VERUM**(deont(epis(*p*)))  $\equiv$  deont(epis(**FOR-SURE-CG**(*p*)))  
 $\leadsto$  The speaker wants the hearer to know that the speaker is sure that it should be common ground that *p*.

VERUM+*ja*=*JA*

- (25) **VERUM**(*ja*(*p*)))  $\equiv$  *ja*(**FOR-SURE-CG**(*p*)))  
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Truth and use conditions for *David ist JA ein Zombie (= (19))*

(26)

$$\llbracket (19) \rrbracket^c = \left\{ \begin{array}{ll}
 \langle 1, \checkmark \rangle & \text{iff David is a zombie and } c_S \text{ wants } c_H \text{ to know that} \\
 & \text{David is a zombie and } c_H \text{ may already have} \\
 & \text{known that } c_S \text{ is sure that it should be common} \\
 & \text{ground that David is a zombie.} \\
 \\
 \langle 0, \checkmark \rangle & \text{iff David is not a zombie and } c_S \text{ wants } c_H \text{ to know} \\
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 \langle 1, \cancel{\checkmark} \rangle & \text{iff ...} \\
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# Outlook

## There are still many open questions:

- Can the presented analysis be extended to other MPs or other sentence moods, and if so, how?
- Can the analysis explain *why* stressed MPs can realize VERUM (in contrast to other stressed expression)?
- How can the influence that stress has on the distribution of an MP explained by the presented analysis?
- Can the analysis explain why some MPs can be stressed and others cannot?
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Thank you very much!

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