Verum focus is not verum

HORST LOHNSTEIN (BERGISCHE UNIVERSITÄT WUPPERTAL)

1 Introduction

In the discussion of a collective of authors – Daniel Gutzmann, Katharina Hartmann and Lisa Matthewson – to which our jubilarian belongs and which is published as Gutzmann et al. (2020)¹, two hypotheses (the *focus accent thesis* FAT and the *lexical operator thesis* LOT) are presented, discussed and evaluated.² Both hypotheses assume that an isolated VERUM element (each with specific properties and conditions of its insertion) occurs (FAT) or is inserted (LOT) in sentences and relates directly to the proposition.³

I would like to argue that the assumption of such a VERUM predicate or operator is – from a logical as well as a sentence-grammatical perspective – not without problems. Presumably, these arise from the fact that the meaning of a natural language sentence is occasionally understood as a pure proposition, without taking into account that the meaning of a sentence includes a further component that expresses the truth validity of the proposition. This component is the *sentence mood*. It is essentially expressed in German and English by the occupation variants of the two left-peripheral clausal positions in which – at the same time – the regular realisations of the verum focus take place. This fact obviously suggests to relate sentence mood and verum focus to each other. Under this assumption, verum focus is derived from an independently founded concept which is necessary for sentence grammar anyway, using further regular grammatical means. In German and English, this grammatical device is the focus.

In their discussion, GHM do not mention the category *sentence mood* and its relation to the truth conditions of the expressed proposition as it is present in declarative and interrogative sentences.

In the following, I will show that, firstly, the truth conception of FAT is unsuitable for capturing the truth properties of sentences with the help of a VERUM

¹In the following abbreviated as GHM.

²I am grateful to Hardarik Blühdorn and Christopher Saure for reviewing, commenting, and providing helpful remarks.

³See also Gutzmann and Castroviejo (2011: 145ff.).

predicate and that, secondly, the properties of the operator used by LOT, which are based on a conversational operator, correspond in the essential respects to the properties of the declarative sentence mood. Thus, the operator introduced by LOT can be related to a grammatical component that is constitutive for sentence grammar anyway. Therefore a conception is proposed,

- (1) a. which attributes the semantic and pragmatic effects of verum focus to the interaction of regular grammatical means,
 - b. which assumes the component sentence mood, which always occurs in sentences (like the one with LOT proposed operator),
 - c. which, however, only shows the specific (VERUM) effects when additional grammatical means (such as focusing) are used (like the one with LOT proposed operator),
 - d. which, however, at the same time, also include the VERUM effects in other than declarative and y/n-interrogative sentences.

Since, firstly, a pure proposition (without sentence mood) does not lead to a grammatically well-formed sentence, secondly, sentence mood exists as a grammatical category in all known languages,⁴ and thirdly, in German and English the verum focus can be derived compositionally in the interaction of sentence mood with focus⁵, it is an obvious hypothesis that in other languages, too, sentence mood is significantly involved in the effects achieved in German and English with verum focus.

I proceed as follows.

First, I discuss the conceptions of verum focus according to the theory of Höhle (1988, 1992) and the discussion of the two hypotheses FAT and LOT of GHM.

Then, on the basis of Frege's (1919) reflections, I show some central properties of the word "true" and the associated assumptions about a VERUM predicate. The focus is on the view that the relation of the predicate *true* to the proposition cannot be reconstructed as a predicate-argument relation, but as the "progression from thought to judgement" Frege (1982/1997: 32).

The sentence moods discussed in GHM are limited to declarative and y/ninterrogative, so that I would finally like to open up the perspective of also covering the other sentence moods in this way. The operator introduced with LOT must also be specified in a different way for other sentence moods, so that another advantage of the "sentence mood theory of verum focus" is the uniform treatment of the varying phenomena.

This means, however, that verum focus can be reconstructed compositionally from the regular interaction of the grammatical means: sentence mood

⁴See Sadock and Zwicky (1985), König and Siemund (2007), Portner (2018).

⁵See Lohnstein (2016, 2018) for German, Kocher (2023) for Spanish.

constitution and focusation. Moreover, it is possible to reconstruct the effects associated with the so-called 'verum focus' in other languages with the help of other grammatical or lexical means. Since the operator associated with LOT largely corresponds in content to the sentence mood *declarative*, it can be identified with this mood.

2 Verum focus

2.1 By Höhle (1988, 1992)

Verum focus in German (and English) is a phenomenon that can be expressed essentially at the left periphery of the sentence by an H*L pitch accent on the finite verb (F verum focus) (2), a conjunction (C verum focus) (3) or a relative or – in the embedded case – interrogative pronoun (RW verum focus) (4):⁶

(2) F verum focus

	a.	Pavarotti SINGT eine Arie	(declarative)	
		'Pavarotti DOES sing an arie'		
	b.	SINGT er (denn) eine Arie	(y/n-interrogative)	
		'DOES he sing an arie'		
	c.	Wer SINGT (denn nun) die Arie	(wh-interrogative)	
		'Who SINGS (then) an arie'		
	d.	SING (jetzt mal) die Arie	(imperative)	
		'SING (now) the arie'		
	e.	HÄTte doch bloß Pavarotti die Arie gesungen	(optative)	
		'If only Pavarotti HAD sung the arie'		
(3)	C verum focus			
	a.	Karl hat behauptet, DASS Pavarotti die Arie s	ingt	
		(dep. <i>dass</i> -clause)		
		'Karl has claimed THAT Pavarotti sings the arie'		
	b.	Es ist aber nicht klar, OB er sie singt	(dep. ob-clause)	
		'But it is not clear WEther he sings it'		
(4)	RW	RW verum focus		
	a.	a. (Du hast mir erzählt, wer die Arie NICHT singt)		
		Jetzt will ich wissen, WER sie singt (indi	r. wh-interrogative)	
		'(You told me who does NOT sing the arie)		
		Now I want to know WHO sings it'		
	b.	(Dort steht der Maestro, der die Arie NICHT s	singt)	
		Aber hier steht der Maestro, DER sie singt	(relative clause)	

⁶For better readability, capital letters mark the position of the H*L pitch accent.

'(There stands the maestro, who does NOT sing the arie) But here stands the maestro WHO sings it'

Verum effects on finite verbs in final position are highly restricted and, according to Höhle (1992: 129), do not belong to the actual realisations of verum focus.⁷

Verum focus is characterised by Höhle (1992: 114) as in (5):

(5) In the cases under consideration, a meaning element VERUM is assigned to the verb, so that this element is emphasised by the stress on the verb.

Focus in general is understood in the following way (cf. Höhle 1982: 87):

- (6) a. a variable for phonetic material,
 - b. a sentence operator,
 - c. a conjunct in the normalised logical form.⁸

A focus according to characterisation (6-b) or (6-c) is called a 'semantic focus' by Höhle (1982: 88).

It is noteworthy that the realisation of the accent must take place exactly in the left sentence bracket (C^0 -position) if it is phonetically filled, and can be exactly on the prefield position phrase (SpC-position) if the position C^0 is phonetically not filled. In the latter case the accent realisation in complex RW-phrases must lie exactly on the R- or the W-element.⁹

Höhle (1992) discusses not only the solution with a VERUM predicate but also the so-called *IT-interpretation of the verum focus*, He rejects this analysis because a *pragmatic* IT-operator (illocution type operator) can occur in independent but not in dependent clauses. Since the verum focus can occur in both types of sentences, Höhle rejects the IT-operator solution. If we substitute the *pragmatic concept of the IT operator* for the *semantic concept of sentence mood*, it becomes clear that a sentence mood interpretation of verum focus is very possible, because both independent and dependent sentences have it (see Lohnstein 2016, 2018). I favour this kind of treatment of the verum focus phenomenon throughout this contribution.

⁷For the theoretical treatment of these effects, see Lohnstein (2018: 79ff.).

⁸A normalised logical characterisation is illustrated by Höhle (1982: 88) with an example:

(i) a. SCHENK(KARL, KIND, BUCH) b. $\exists r \exists x \exists y \exists z (r(x, y, z) \& r(x, y, z) = SCHENK(x, y, z) \& x = KARL \& y = KIND \& z = BUCH)$

⁹For the derivation of these characteristics, see Lohnstein (2018: 76ff.).

2.2 By Gutzmann et al. (2020)

GHM discuss the phenomenon of verum focus under two hypotheses: the *focus-accent thesis* (FAT) and the *lexical-operator thesis* (LOT). They test their validity on the basis of various non-European languages in order to decide which of the two should be given preference. The first hypothesis is characterised as follows (GHM, 3):

(7) **FAT**:

- a. The verum accent is a focus accent.
- b. It focuses a covert VERUM predicate which marks the proposition expressed by a sentence as true.

This leads to an expression, which is a formulaic abbreviation for FAT:

(FAT) verum accent := covert predicate verum + focus marking

The verum element is used in the sense of the redundancy theory¹⁰ as an identity function over propositions, so that the following formula applies (GHM, 4):

(8) $\llbracket p \rrbracket \Leftrightarrow \llbracket verum(p) \rrbracket$

It leads GHM to the assumption "that every (positive) sentence involves a VERUM predicate with a trivial meaning, [...]". In fact, this supposedly trivial meaning can only be attributed to the *declarative* mood. For the other sentence moods, quite different assumptions are necessary.

The connection to the conditions of the discourse context is provided by the 'context condition' (GHM, 6):

(9) **Context condition** (question-based) An utterance of sentence S is felicitous in a context c if $[S]^f = QUD(c)$.

To formulate LOT, GHM use the conversational-epistemic operator proposed by Romero and Han (2004), which expresses not the speaker's certainty about the truth of the proposition expressed, but the fact that p is to be added to the Common Ground. Accordingly, VERUM in GHM's final form is fixed as in (GHM, 39: (113), here as (10)):

(10) $[[verum]]^{u,c}(\mathbf{p}) = \checkmark$, if the speaker c_S wants to prevent that QUD(c) is downdated with $\neg \mathbf{p}$.

In somewhat abbreviated form, this means that the speaker does not want - in

¹⁰See, for example, Frege (1976: 271) or Ramsey (1927/1931)

the case of declarative and y/n-interrogative sentences – the alternative to the affirmation (i. e. the negation) to be inserted into the CG.

According to LOT, the verum accent is not a focus accent, i.e. it does not refer to focus alternatives in relation to the QUD, as the weak FAT does, nor to salient alternatives, as the strong FAT wants it. Rather, the verum accent provides a way of realising a lexical verum element that is responsible for the specific discourse conditions and the successful use in an utterance. Instead of assuming that every (positive) sentence has a verum element with trivial meaning, the operator formulated under LOT occurs only when the sentence is actually verum-marked. LOT thus takes the following form (GHM, 8):

(11) **LOT**: verum accent := conversational operator, possibly realized by accent

"That is, we argue for a universal semantic claim, namely that the semantic (or pragmatic) phenomena of verum and focus are separate, instead of verum being a special case of focus." (GHM, 10). As far as I can see, no one has ever claimed that the VERUM component alone is a special case of focus. The compound verum focus does denote a special kind of focus. But it does not mean that VERUM alone should be understood as a special focus phenomenon (see also Höhle's characterisation in (6)). The term verum focus characterises - in the regular interpretation as a nominal compound – a special kind of focus and at the same time the interaction with the VERUM component. This is of course also suggested by the title of GHM's contribution: "Verum focus is not focus". Since Höhle coined this term for the phenomenon in German, the designation is appropriate. For other languages, in which the relevant VERUM effects are realised without focus, other designations may be appropriate. In this sense, GHM also argue that by including two Chadic languages (Afro-Asiatic) and a Tsimshian language, it can be shown that the focus-bound VERUM interpretation proposed by FAT is inferior to the LOT hypothesis, which does not necessarily realise the VERUM effect by means of focus.

Both theses assume that there is an isolated VERUM operator which always occurs in FAT and can be introduced in LOT by suitable grammatical means. In German and English, this is focusation, which has earned the phenomenon the name *verum focus*. It is clear that this designation should be chosen differently for languages that do not use focusation but other grammatical means to achieve the typical effects.

Against the background of the two hypotheses discussed by GHM, I would like to argue that

- (12) a. part of the meaning of a sentence which expresses its truthfulness *always* occurs in the sentences in question. This property is criticised by GHM (4) in the context of FAT, and trivialised by means of the relation [[p]] ⇔ [[VERUM(p)]].
 - b. the operator specified in FAT, however, is not a suitable means to represent the validity of truth of the proposition of the sentence expressed,
 - c. the (morpheme-like) operator introduced in LOT does not exist,
 - d. but the properties assigned to it by GHM correspond to the properties of the declarative sentence mood.

(12-a) is well-founded, because propositions can only be expressed in sentences of natural languages in connection with a sentence mood. The declarative mood is the canonical sentence mood for assertions. Other sentence moods occurring in natural languages serve other functions.¹¹

(12-b) is reconstructable with Frege's analysis not as the relation between a predicate and a subject, but as the progression from thought to judgement. If this view is correct, the analysis of the operator associated with FAT is wrong.

(12-c) and (12-d) are related. If it can be shown that (12-d) is correct, it follows under the usual economy conditions¹² that (12-c) is also correct. It is therefore sufficient to show that (12-d) is correct.

3 Truth of propositions vs. truth of clauses

The concept of *truth* has been interpreted in different ways in the history of Western philosophy.¹³ In the field of analytical philosophy and modern semantic research, it is related to the concept of *proposition*.

Propositions occur in natural language sentences only in connection with a sentence mood. The declarative sentence mood expresses that the speaker *believes* the proposition *to be true*, which of course does not mean that the proposition *is true*. Verum focus is an appropriate means of resolving a dispute about the truthfulness of a proposition. This view also underlies LOT in the formulation of GHM, 39: (113), reproduced in (10).

Let us first turn to the properties of the predicate true in Frege's analysis.

¹¹Cf. Peirce (1897), Frege (1919), Sadock and Zwicky (1985), Altmann (1987), Brandt et al. (1992), Lohnstein (2000), Truckenbrodt (2006), König and Siemund (2007), Portner (2018).

¹²As formulated, for example, on the basis of Ockham's Razor: "Entia non sunt multiplicanda praeter necessitatem" in Sober (2015) and also Chomsky (1995).

¹³A good overview is given by Glanzberg (2022).

"The word 'true', then, by its meaning, makes no essential contribution to the thought. If I assert 'it is true that sea water is salty', I assert the same thing as if I assert 'sea water is salty'. In this it can be seen that the assertion is not in the word 'true' but in the assertive force with which the sentence is uttered. After that, one might think that the word 'true' has no meaning at all. But then a sentence in which 'true' occurs as a predicate would also have no sense. One can only say: the word 'true' has a sense that contributes nothing to the sense of the whole sentence in which it occurs as a predicate."¹⁴

Propositions correspond to the thought (in Frege's sense) that is expressed with a sentence. The thought or proposition can be true or false: "Every proposition in which the meaning of the words is important is therefore to be understood as a proper name, and indeed its meaning, if it exists, is either the true or the false."¹⁵

In the conception of formal semantic theory in the wake of Carnap (1947), the proposition p is reconstructed as an intensional function (of possible worlds into truth values) that maps a possible world w onto the true iff $w \in [\![p]\!]$, otherwise onto the false. According to this conception, the meaning of a proposition is therefore the true or the false.

However, the term *truth* also occurs in connection with *sentences of natural languages*. There, truth is not expressed directly with a proposition, but occurs in all natural languages together with a sentence mood. At the same time, not all sentences seem to have a relation to truth. As Frege (1919: 34) states: "In order to more sharply elaborate what I want to call thoughts, I distinguish types of sentences. One will not want to deny a meaning to the command sentence; but this meaning is not such that truth could come into question with it. That is why I will not call the meaning of a command sentence thoughts. Likewise, wishful and supplicatory sentences are to be excluded. Only sentences in which we communicate or assert something can be considered."¹⁶

¹⁵Original: "Jeder Behauptungssatz, in dem es auf die Bedeutung der Wörter ankommt, ist also als Eigenname aufzufassen, und zwar ist seine Bedeutung, falls sie vorhanden ist, entweder das Wahre oder das Falsche." Frege (1982/1997: 30) (see also Lyons 1977: 38, Blühdorn 2022).

¹⁴Original: "Das Wort 'wahr' liefert also durch seinen Sinn keinen wesentlichen Beitrag zum Gedanken. Wenn ich behaupte 'es ist wahr, dass das Meerwasser salzig ist', so behaupte ich dasselbe wie wenn ich behaupte 'das Meerwasser ist salzig'. Hierin ist zu erkennen, dass die Behauptung nicht in dem Worte 'wahr' liegt, sondern in der behauptenden Kraft, mit der der Satz ausgesprochen wird. Danach könnte man meinen, das Wort 'wahr' habe überhaupt keinen Sinn. Aber dann hätte auch ein Satz, in dem 'wahr' als Prädikat vorkäme, keinen Sinn. Man kann nur sagen: das Wort 'wahr' hat einen Sinn, der zum Sinne des ganzen Satzes, in dem es als Prädikat vorkommt, nichts beiträgt." Frege (1915/1976: 271)

¹⁶Original: "Um das, was ich Gedanken nennen will, schärfer herauszuarbeiten, unterscheide ich Arten von Sätzen. Einem Befehlssatze wird man einen Sinn nicht absprechen wollen; aber dieser Sinn ist nicht derart, dass Wahrheit bei ihm in Frage kommen könnte. Darum werde ich den Sinn eines Befehlssatzes nicht Gedanken nennen. Ebenso sind Wunsch- und Bittsätze auszuschließen. In Betracht kommen können Sätze, in denen wir etwas mitteilen

The declarative clause as a canonical linguistic expression of an assertion adds to the proposition the meaning component *that the speaker believes the proposition to be true*. However, in contrast to *being true* (or false) of a proposition, a declarative sentence can only express that the proposition is *judged to be true* (or false). Therefore, while the proposition is true or false, a clause of natural language can only express the judgment that it is true or false. The essential component here is the assertive force supplied by the declarative sentence mood, not the proposition itself: "In the form of the assertion sentence, we pronounce the recognition of truth. For this we do not need the word 'true'. And even when we use it, the actual assertive force does not lie in it, but in the form of the assertive clause, and where its assertive force is lost, not even the word 'true' can restore it."¹⁷

The predicate *true* does not seem to play any role at all. "One might be tempted to regard the relation of thought to the true not as that of sense to meaning, but as that of the subject to the predicate. [...] The assertion of truth lies [...] in the form of the proposition [...] From this it is to be inferred that the relation of the thought to the true may not be compared with that of the subject to the predicate."¹⁸ The assumptions associated with this conception generally argue against the use of a VERUM predicate, but: "It can therefore never refer us to the meaning of a sentence alone; but even the mere thought does not give knowledge, but only the thought together with its meaning, i.e. its truth-value. Judging can be conceived as progressing from a thought to its truth value."¹⁹

Frege (1919: 35) identifies the grasping of the thought with the formation of a yn-question. Accordingly, the thought represents a bipartition of the possible world situations into those in which the thought is true and those in which it is false. The thought thus corresponds to a binary object that divides the set of possible worlds (situations) into two classes: those worlds (situations) that are accurately described by the proposition and those that are not. The "progression from thought to judgement", in Carnap's (1947) conception, cor-

oder behaupten." (Frege 1919: 34)

¹⁷Original: "In der Form des Behauptungssatzes sprechen wir die Anerkennung der Wahrheit aus. Wir brauchen dazu das Wort "wahr" nicht. Und selbst, wenn wir es gebrauchen, liegt die eigentlich behauptende Kraft nicht in ihm, sondern in der Form des Behauptungssatzes, und wo diese ihre behauptende Kraft verliert, kann auch das Wort "wahr" sie nicht wieder herstellen." (Frege 1919: 63)

¹⁸Original: "Man könnte versucht sein, das Verhältnis des Gedankens zum Wahren nicht als das des Sinnes zur Bedeutung, sondern als das des Subjekts zum Prädikate anzusehen. [...] Die Behauptung der Wahrheit liegt [...] in der Form des Behauptungssatzes, [...] Daraus ist zu entnehmen, daß das Verhältnis des Gedankens zum Wahren doch mit dem des Subjekts zum Prädikate nicht verglichen werden darf." Frege (1982/1997: 34)

¹⁹Original: "Es kann uns also niemals auf die Bedeutung eines Satzes allein ankommen; aber auch der bloße Gedanke gibt keine Erkenntnis, sondern erst der Gedanke zusammen mit seiner Bedeutung, d. h. seinem Wahrheitswerte. Urteilen kann als Fortschreiten von einem Gedanken zu seinem Wahrheitswerte gefaßt werden." Frege (1982/1997: 32)

responds to the extensionalisation of the proposition on the world (situation) in question. $^{\rm 20}$

In German sentence grammar, this process correlates with the occupation of the prefield position (SpC) with a [-wh]-phrase.²¹ This expresses the assertion that the speaker *believes the proposition to be true*, it does not mean that *the proposition is true*. After the announcement of this judgment the proposition must be negotiated with the addressees in the further course of the discourse. Only when this negotiation has taken place is the proposition added (or not) to the Common Ground (CG).

Verum effects do actually not occur in propositions, but in sentences of natural language. And the relevant sentence-grammatical properties are not captured at all by the purely logical characterisation in (8). This holds in particular for the syntactic distribution of the (VERUM) accent position, which in German is strictly limited to the positions SpC and C⁰ (with further restrictions on their possible occupations).

To satisfy the condition in (10) that "the speaker c_S wants to prevent that QUD(c) is downdated with $\neg p$.", certain measures are necessary. These include:

- (13) a. the speaker claims p,
 - b. the speaker wants the addressee to believe p to be true,
 - c. so that p is added to CG.

In the next section, I will show that the ingredients (13-a)–(13-c) are already connected with the *declarative* sentence mood.

Before this, however, it should also be emphasised that the so-called 'verum element' occurs in all types of sentences. This is somewhat strange under the condition in (10), because even in interrogative, optative and imperative sentences verum readings are possible without a downdate with $\neg p$ being possible at all.

For example, if (14-a) is a QUD, with p as in (14-b), so that p and $\neg p$ represent the space of answers to the QUD as in (14-c):

- (14) a. Did he sign the contract?
 - b. p = x signed the contract
 - c. $QUD = \{p, \neg p\}$

and if (10) indicates the relevant properties of LOT, then one can ask to what

²⁰The concept of the truth of a proposition is often referred to the actual world (reality). However, this is by no means obligatory, because the concept can also be applied to fictional worlds or situations. See, for example, Lewis (1978).

²¹See Altmann (1987), Brandt et al. (1992), Reis (2000), Lohnstein (2000, 2019) and the next section.

extent it captures the verum focus data in (15):

- (15) a. Gestern HAT er den Vertrag unterzeichnet 'Yesterday he signed the contract'
 - b. HAT er den Vertrag (denn) unterzeichnet 'HAS he signed the contract (then)'
 - c. Wann HAT er den Vertrag (denn) unterzeichnet 'When DID he sign the contract (then)'
 - d. HÄTte er doch den Vertrag unterzeichnet 'HAD he signed the contract'
 - e. UnterZEICHne jetzt den Vertrag 'SIGN the contract now'

(15-a) and (15-b) can be calculated under these assumptions by means of the characterisation of LOT in (10) adequately. For (15-c) to (15-e), however, quite different conditions must be formulated. For the [+wh]-interrogative sentence in (15-c), p is presupposed, i.e. the contract was signed. $\neg p$ is therefore not a relevant part in QUD at all. If the optative clause in (15-d) is used appropriately, it holds that $\neg p$ is true, i. e. the contract was not signed. So, LOT cannot adequately capture this case either. For the imperative sentence in (15-e), a similar justification for the non-adequacy of LOT applies as for (15-d). Imperative sentences represent a speaker's wish to be fulfilled by the addressee, to that extent the question of truth does not arise. They also do not answer the QUD. In this respect, it is highly questionable whether (15-e) can be covered by LOT.

It is also by no means the case that the alternatives of verum exclude negation. (16-c) shows that VERUM and negation can occur in a clause at the same time (cf. also Höhle 1992: 127f.):

- (16) I hope he signed the contract
 - a. No, he did not sign the contract
 - b. Yes, he signed the contract
 - c. No, he DID not sign the contract

VERUM(p) and $\neg p$ are therefore not necessarily paradigmatic alternatives, so that this kind of data is also not adequately captured by LOT.

In particular, the discussion of the data in (15) suggests that verum focus and sentence mood should be related to each other. I will motivate this in the following section for the sentence moods declarative and y/n-interrogative discussed by GHM.

4 Verum focus as sentence mood focus

"In the form of the assertive clause, we pronounce the recognition of truth. We do not need the word 'true' for this. And even if we use it, the actual assertive force does not lie in it, but in the form of the assertive clause, and where this has lost its assertive force, not even the word 'true' can restore it." ²²

If one follows this idea of Frege, the 'actually asserting force' is given with the propositional mood, not with the proposition and its truth value.

The canonical form of the declarative clause has the following characteristics in German:

- (17) a. the finite verb is in second position,
 - b. the prefield is occupied by a [-wh]-phrase,
 - c. the verbal mood is indicative or conjunctive 2,
 - d. the right boundary tone is low.

Likewise, the verum focus in German is realised precisely in the syntactic positions which I summarise here as a MoodP. This syntactic projection corresponds to the classical CP so that the left periphery of the clausal structure is given as in (18):

RW verum focus is possible exactly when the $Mood^0$ position is phonetically empty.²³

Sentence mood is a universally occurring categorisation of the semantic description of natural languages.²⁴ Specifically, the declarative mood can be as-

²²Original: "In der Form des Behauptungssatzes sprechen wir die Anerkennung der Wahrheit aus. Wir brauchen dazu das Wort "wahr" nicht. Und selbst, wenn wir es gebrauchen, liegt die eigentlich behauptende Kraft nicht in ihm, sondern in der Form des Behauptungssatzes, und wo diese ihre behauptende Kraft verliert, kann auch das Wort "wahr" sie nicht wieder herstellen." (Frege 1919: 63).

²³For details, see Lohnstein (2016, 2018).

²⁴See Sadock and Zwicky (1985), König and Siemund (2007) on the basic types declarative, interrogative and imperative. For German, the optative Altmann (1987), Grosz (2012, 2013) and the exclamative Altmann (1987), d'Avis (2001, 2013) are also assumed, although it is

signed the following provisions:²⁵

- (19) Declarative mood:
 - a. S judges that p.
 - b. S announces (claims) that p.
 - c. S wants H to believe that p.

(19-a) describes that the speaker S considers the thought expressed by p to be true (or false). He thus reduces the bipartition of world situations induced by the structure of the thought to the true (or the false) by extensionalising the proposition with regard to the world situation in question. This process takes place within the speaker. It is externalised with (19-b), usually in a discourse situation, so that certain social obligations result from the assertion (Krifka 2014). Connected with (19-c) is S's desire to make the hearer H also believe p to be true, so that p can be added to the Common Ground. The desire to add proposition p to the CG is not only compatible with the desire to exclude $\neg p$, but can also be used to explicitly prevent $\neg p$ from having any validity at all.

However, this determination of the declarative mood corresponds to the properties of the operator characterised with (10) given in (13-a) to (13-c). While GHM assume that this operator does not occur in every sentence, but only when the specific verum effects appear, the *sentence mood theory of verum focus* claims that the sentence mood is always present, but the specific VERUM effects only show up when the language-specific markers for it are also present.

Thus, insofar as the sentence mood *declarative* has the decisive features of the epistemic-conversational operator assumed under LOT, one of the two concepts can be omitted. Since sentence mood is indispensable as a universal category, the operator associated with LOT must be dispensed with. It can, however, be reinterpreted as the sentence mood *declarative*. At the same time, this analysis takes into account the fact that verum focus in German must be realised on the left sentence periphery in the mood phrase (18), and thus accounts for the other sentence moods as well.

As a conclusion, it can be said that sentence mood plays the relevant role in the so-called verum focus constructions. Its realisation through the accent takes place in German (and English) precisely in the corresponding syntactic positions. The resulting research task is to examine the phenomena associated with the so-called verum focus in other languages and their relation to the universal category of sentence mood. It should turn out that the

questionable whether these two categories are actually independent (semantic) sentence moods or whether they only lead to such interpretations at the illocutionary (pragmatic) level. I will not pursue this question further here.

 ²⁵See Peirce (1893-1913: 140), Frege (1919: 35), Searle (1975: 12), Bach and Harnish (1979: 41), Altmann (1987: 25), Brandt et al. (1992: 61ff.), Tuzet (2006: 333), Lohnstein (2018: 73)

sentence mood plus X derives the resulting effects, where X in German and English is focus, but in other languages other grammatical or lexical means can of course also be used.

References

- Altmann, H. (1987). Zur Problematik der Konstitution von Satzmodi als Formtypen. In J. Meibauer (Ed.), Satzmodus zwischen Grammatik und Pragmatik. Referate anlässlich der 8. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft, Heidelberg 1986, Linguistische Arbeiten 180, pp. 22–56. Tübingen: Niemeyer.
- Bach, K. and R. M. Harnish (1979). Linguistic communication and speech acts. Cambridge, MA: MIT Press.
- Blühdorn, H. (2022). Sätze als propositionale und nicht-propositionale Ausdrücke im Deutschen. In J. M. Hartmann and A. Wöllstein (Eds.), *Propositionale Argumente im Sprachvergleich: Theorie und Empirie*, pp. 18–85. Tübingen: Narr Francke Attempto.
- Brandt, M., M. Reis, I. Rosengren, and I. Zimmermann (1992). Satztyp, Satzmodus und Illokution. In I. Rosengren (Ed.), *Satz und Illokution I*, pp. 1–90. Tübingen: Niemeyer.
- Carnap, R. (1947). *Meaning and necessity: A study in semantics and modal logic.* Chicago, Illinois: University of Chicago Press.
- Chomsky, N. (1995). The minimalist program. Cambridge, MA: MIT Press.
- d'Avis, F.-J. (2001). Über "'W-Exklamativsätze"' im Deutschen. Tübingen: Niemeyer.
- d'Avis, F.-J. (2013). Exklamativsatz. In J. Meibauer, M. Steinbach, and H. Altmann (Eds.), *Satztypen im Deutschen*, pp. 171–201. Berlin, New York: de Gruyter.
- Frege, G. (1892/1997). On sense and reference. In P. Ludlow (Ed.), *Readings in the philosophy of language*, pp. 563–584. Cambridge, MA: MIT Press.
- Frege, G. (1915/1976/1983). Meine grundlegenden logischen Einsichten. In H. Hermes, F. Kambartel, and F. Kaulbach (Eds.), Nachgelassene Schriften und Wissenschaftlicher Briefwechsel, Bd. I, pp. 271. Hamburg: Meiner.
- Frege, G. (1919). Der Gedanke. Eine logische Untersuchung. Beiträge zur Philosophie des deutschen Idealismus 2, 1918-1919, 58–77.
- Frege, G. (1976). Nachgelassene Schriften und wissenschaftlicher Briefwechsel. Hamburg: Meiner.
- Glanzberg, M. (2022). Truth. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*, pp. 1–55. Stanford: Metaphysics Research Lab, Stanford University.
- Grosz, P. (2012). On the grammar of optative constructions. Amsterdam: Benjamins.
- Grosz, P. (2013). Optativsatz. In J. Meibauer, M. Steinbach, and H. Altmann (Eds.), *Satztypen im Deutschen*, pp. 146–170. Berlin, New York: de Gruyter.
- Gutzmann, D. and E. Castroviejo, Miró (2011). The Dimensions of Verum. In O. Bonami and P. C. Hofherr (Eds.), *Empirical Issues in Syntax and Semantics* 8, pp. 143–165.
- Gutzmann, D., K. Hartmann, and L. Matthewson (2020). Verum focus is verum, not focus: Cross-linguistic evidence. *Glossa: a journal of general linguistics* 5(1), 1–48.

- Höhle, T. N. (1982). Explikation für "normale Betonung" und "normale Wortstellung".
 In W. Abraham (Ed.), Satzglieder im Deutschen. Vorschläge zur syntaktischen, semantischen und pragmatischen Fundierung, pp. 75–153. Tübingen: Narr.
- Höhle, T. N. (1988). Vorwort und Nachwort zu VERUM-Fokus. Sprache und Pragmatik Arbeitsberichte 5, 1–7.
- Höhle, T. N. (1992). Über Verum-Fokus im Deutschen. In J. Jacobs (Ed.), Informationsstruktur und Grammatik, pp. 112–141. Opladen: Westdeutscher Verlag.
- Kocher, A. (2023). A sentence mood account for Spanish verum. *Glossa: a journal of general linguistics* 8(1), 1–47.
- König, E. and P. Siemund (2007). Speech act distinctions in grammar. In T. Shopen (Ed.), *Language Typology and Syntactic Description*, pp. 276–324. Cambridge: Cambridge University Press.
- Krifka, M. (2014). Embedding illocutionary acts. In T. Roeper and M. Speas (Eds.), *Recursion: Complexity in Cognition*, pp. 59–88. Heidelberg: Springer.
- Lewis, D. K. (1978). Truth in fiction. American Philosophical Quarterly 15(1), 37-46.
- Lohnstein, H. (2000). Satzmodus kompositionell: Zur Parametrisierung der Modusphrase im Deutschen. Berlin: Akademie Verlag.
- Lohnstein, H. (2016). Verum focus. In C. Féry and S. Ishihara (Eds.), *The Oxford handbook of information structure*, pp. 290–313. Oxford: Oxford University Press.
- Lohnstein, H. (2018). Verum focus, sentence mood, and contrast. In C. Dimroth and S. Sudhoff (Eds.), *The grammatical realization of polarity: Theoretical and experimental approaches*, pp. 55–87. Amsterdam: Benjamins.
- Lohnstein, H. (2019). Finitheit und Satzbildung im Deutschen: Satzgrammatische, semantische und evolutionäre Aspekte. *Linguistische Berichte* 257, 5–92.
- Lyons, J. (1977). Semantics. Vol. 1. Cambridge et al.: Cambridge University Press.
- Peirce, C. S. (1893-1913). The Essential Peirce: Selected Philosophical Writings, Volume 2 (1893-1913). Bloomington, Indianapolis: Indiana University Press. Peirce Edition Project.
- Peirce, C. S. (1897). Logic as semiotic: The theory of signs. In J. Buchler (Ed.), *Philosophical Writings of Peirce*, pp. 98–119. New York: Dover Publications.
- Portner, P. H. (2018). Mood. Oxford: Oxford University Press.
- Ramsey, F. P. (1927/1931). Facts and propositions. In F. P. Ramsey (Ed.), *The foun-dations of mathematics and other logical essays*, Volume 7, pp. 153–170. London, New York: Routledge.
- Reis, M. (2000). Anmerkungen zu Verb-erst-Satz-Typen im Deutschen. In R. Thieroff, M. Tamrat, N. Fuhrhop, and O. Teube (Eds.), *Deutsche Grammatik in Theorie und Praxis*, pp. 215–227. Tübingen: Max Niemeyer Verlag.
- Romero, M. and C.-H. Han (2004). On negative yes/no questions. *Linguistics and Philosophy* 27, 609–658.
- Sadock, J. and A. Zwicky (1985). Speech act distinctions in syntax. In T. Shopen (Ed.), *Language typology and syntactic description I: Clause structure*, pp. 155–196. Cambridge: Cambridge University Press.
- Searle, J. R. (1975). A taxonomy of illocutionary acts. Language, Mind, and Knowledge. Minnesota Studies in the Philosophy of Science 7, 344–369.
- Sober, E. (2015). Ockham's Razors: A user's manual. Cambridge: Cambridge Univer-

sity Press.

- Truckenbrodt, H. (2006). On the semantic motivation of syntactic verb movement to C in German. *Theoretical Linguistics* 32(3), 257–306.
- Tuzet, G. (2006). Responsible for truth? Peirce on judgment and assertion. *Cognitio* 7(2), 317–336.