The grammar of negation in contemporary German: Syntax, sentence semantics and information structure, with additional observations on pragmatics

The article gives an overview of the implementation of negation in contemporary German, touching on its role in syntactic structures, at the interface between syntax and compositional semantics and in focus-background structuring. The picture is rounded off by some observations on pragmatics (reference and irony). The descriptive approach lends itself to empirical applications in monolingual and comparative grammar as well as in interaction analysis.

Negation is understood as the de-selection of a piece of information for an utterance in an interaction context. Optionally, an alternative can be given for the de-selected constituent in order to make the utterance approvable. German has a richly differentiated grammar of negation. Negating expressions can be placed relatively freely within syntactic structures. The informational design of utterances containing negation is subject to only minor restrictions.

Negating expressions like *nicht* encode the negation operator. They can be understood as realizations of the abstract negation morpheme NEG. NEG stands for a contradictory opposition. For every object to which a predicate P can be applied, either P or its negation ¬P will be the case. For no object both can be the case simultaneously, and for no object both can be not the case. The predicates 'married' and 'not married' (*unmarried*) are in this kind of relation to each other.

The effect of negation can be weakened or even eliminated by higher-order operators. For example, sentences differing only in the absence vs. presence of negation are synonymous when the negation operator lies within the scope of the quantifier 'exactly half of', as in (1a) and (1b):

- (1a) Genau die Hälfte der Anwesenden ist verheiratet.
- (1b) Genau die Hälfte der Anwesenden ist **nicht** verheiratet. 'Exactly half of the persons present are (not) married.'

Wherever negation appears to indicate a non-contradictory opposition, for example in "scalar" predicates such as gut ('good': 'showing goodness to a relevant extent') vs. ungut ('ungood': 'showing non-goodness (absence of goodness) to a relevant extent'), the intervention of higher-order operators can be assumed. The quantifier 'to a relevant extent', which takes scope over the negation operator (prefix un-), weakens the contradictory opposition to an antonymy: P and \neg P cannot simultaneously be the case but they can simultaneously be not the case.

Expressions like *nicht ungut* ('not ungood') or *nicht schlecht* ('not bad') exemplify the rhetorical figure of litotes ("negation of the opposite"). Litotes is often used for ironic speech (saying the "opposite of what is meant").

The syntax of negation in contemporary German is adequately described by assuming that NEG can be adjoined to the left of almost any simple or compound syntactic constituent. (2) shows the places where NEG can be inserted into a simple verb-final clause and from where it is able to change the sentence meaning as a whole:

- (2) (dass) [[ø Ronnie] [[ø [ø deshalb] [ø [ø von dem Plan für die Sommerferien] [ø begeistert]]] ist]]
 - '(that) Ronnie is therefore enthusiastic about the plan for the summer holidays'

Typically, NEG is placed inside the sentence. However, if it is meant to function as a (contrastive) topic in the information structure and bears the corresponding prosodic make-up, it can occupy the pre-field of a verb-second sentence:

(3) in den 'EINschlägigen 'ABhandlungen wird 'GERN auf 'EMM \ ISler verwiesen.

'NICHT steht dort dass dieser 'MOnatelang 'WARten musste bis er im 'AMT be'STÄtigt wurde.

'In the relevant treatises, reference is often made to M. Isler. What is not mentioned there is that he had to wait for months until he was confirmed in office.'

Syntactic rearrangements can lead to NEG and the negated constituent being separated from each other in the linear structure, especially if the negated constituent is intended to become topic and NEG focus, as shown in (4b):

- (4) {A Was weißt du über die Anwesenden?} {A 'What do you know about the people present?'}
- (4a) B-dass die 'HÄLFte von ihnen 'NICHT ver HEIratet ist.
 - B 'That half of them are **not married**.'
- (4b) B-ver'HEIratet ist die 'HÄLFte von ihnen `NICHT.
 - B 'As far as being married is concerned, half of them are not.'

A few classes of constituents are not suitable as reference constituents for NEG, including ethical datives, illocutionary sentence adverbs, modal particles and the pronoun *es*.

Another class of non-negatable expressions is referential indefinites. An indefinite that is intended to be in the scope of NEG must be interpreted non-referentially (as a pure predicate expression):

(5a) otto hat [nicht ^MÜLL] weggebracht. 'If Otto took anything away, it wasn't garbage.'

Indefinites outside the scope of negation may be read referentially:

(5b) otto hat [^MÜLL] nicht weggebracht.

'Otto failed to take away something specific that was garbage.'

Finite auxiliary verbs in their regular syntactic positions are a further class of unsuitable reference constituents for NEG. A speaker who wants to negate an auxiliary verb must resort to constructions that isolate it syntactically. The auxiliary verb must then be repeated, accented and explicitly contrasted:

(6) man muss sich be WUSST sein dass eine GANze menge ARbeit auf einen zukommen kann.

nicht 'MUSS aber 'KANN.

'You must be aware that a lot of work can come your way. Not that it has to but it can.'

Even the sentence, i. e. the complementizer phrase CP, is not a suitable reference expression for NEG in German. German syntax permits the adjunction of NEG only to constituents below the CP level. Sentence negation in the syntactic sense of the term is not an option. If the particle *nicht* is adjoined to the periphery of a CP, whether to the left or right, it cannot be read as a realization of NEG. Rather, it must be interpreted as a discourse marker indicating or requesting agreement or announcing irony.

With indefinite pronouns and adverbs such as *ein*, *jemand*, *etwas*, *jemals*, etc., NEG can merge into lexicalized negative indefinites such as *kein*, *niemand*, *nichts*, *niemals*, etc. They can only be used non-referentially. The negative determiner *kein* ('no') has the plural form *keine* ('no'), e.g., *keine Bäume* ('no trees'). While a non-negated plural form like *Bäume* ('trees') can refer to a 'plurality of individuals', *keine Bäume* ('no trees') cannot mean 'no plurality of trees'. It means 'zero trees'. In non-referential usage, the plural category is interpreted in its basic meaning 'divided into individuals'. The specialized interpretation 'plurality of individuals' is reserved for referential usage.

Negation enters into sentence meanings by assigning the thematic role Negated to its reference constituent. This role indicates that the constituent is de-selected for the ongoing interaction. It also points to alternatives in the background knowledge of speaker and addressee, which can make the utterance both relevant and approvable. Such an alternative can be attached with *sondern* ('rather'), following the negation:

(7) Der Bewerber hatte **nicht** die benötigte Qualifikation, **sondern** sehr gute Beziehungen. 'The applicant did **not** have the required qualification. **Rather**, he had very good connections.'

NEG can de-select, through its reference constituent, a simple or compound predicate, an operator, a referent or a particular wording option. If a referent or a wording option are de-selected, the reference constituent must be accented:

If a predicate or operator is de-selected, the reference constituent may optionally remain unstressed. The stress requirement is a grammatical hint as to a special use of negation. Providing positive alternatives can also help clarify the sense in which the negated constituent is rejected.

Beyond the syntactic reference constituent of NEG, the negation operator can take scope over further parts of the sentence meaning, as long as no higher-order operator weakens its effect. Thus, from the sentence in (10), whose constituent *ein Defekt* ('a defect') is de-selected with NEG, the statement in (10a) follows by entailment:

- (10) [Nicht ein Defekt] hatte den Unfall verursacht. 'It was not a defect that had caused the accident.'
- (10a) 'It is **not true / not the case** that a defect had caused the accident.'

The de-selecting effect of NEG can expand from the reference constituent over the description of the state of affairs given by the sentence and/or over the proposition verbalized. As a consequence, the state of affairs or proposition can no longer be used as shared knowledge in the interaction until the de-selected constituent has been replaced by an approvable alternative. Within the scope of a higher-order operator, e. g., a modal operator, the widening of the scope of NEG may fail to occur. Thus, (11) has, in addition to (11a), the reading (11b):

- (11) Man konnte da nichts sehen.
- (11a) 'It is not true that it was possible to see anything there.'
- (11b) 'It is true that it was possible not to see anything there.'

A de-selection of the illocution is not possible with ordinary NEG.

In terms of information structure, negating expressions and their reference constituents can be fashioned relatively freely in contemporary German. In particular, both can be accented or left unaccented independently of each other. When a referent or a wording option is de-selected, the reference constituent must be accented. An accent is also required when de-selection is not intended for the entire reference constituent but only for part of it:

- (12) gesucht wird 'NICHT [ein ver`HEIrateter linguist].
 gesucht wird ein ^LEdiger.
- (12a) 'It is **not the case** / **not true** that a married linguist is being looked for. A non-married one is being looked for.'

The possibility of de-selecting subconstituents further increases the grammatical flexibility of negation in German. If NEG stands outside the phrase containing the de-selected subconstituent, it can simultaneously expand its scope upwards over the description of the state of affairs and/or the proposition, as shown by (12a).

If NEG is placed inside a phrase, as in (13), its de-selecting effect remains locked up within it. The scope of negation cannot then expand over the rest of the clause:

- (13) ge'SUCHT wird [ein 'NICHT verheirateter lingu'IST].
- (13a) 'The successful applicant will be [a non-married linguist].'