How WIE 'how' as Intensifier Co-occurs with other Intensifiers in German Sentence

Michael Richter and Roeland van Hout
Radboud University, Nijmegen

In this paper we state that in exclamative sentences in German, sentence initial wie 'how' which is an instance of degree related adverbial wh-exclamatives (Nouwen and Chernilovskaya [7]), is an intensifier of gradable adjectives (see Rett [8] on degrees within exclamatives). In (1) wie 'how' intensifies the gradable adjective cool:

(1) Wie cool ist das denn!
'how cool was that!'

Our second statement is that wie 'how' can co-occur with (gradable adjectival) intensifiers\(^1\) of similar semantic properties, while it cannot with intensifiers with different properties which is exemplified in (2)a and 2(b), respectively. The words in italics in (2) are intensifiers of the gradable adjective cool. Note the wie does not intensify the bare adjective cool but an intensifier-adjective-complex such as voll cool 'totally cool':

(2) a. Wie unglaublich/ übelst/voll cool war das denn!!
'how incredibly/totally cool was that!'

b. *Wie sehr/äußerst cool war das denn!
'how very/extremely cool was that!'

Gutzmann and Turgay [3] distinguish between degree words in (2)b such as sehr 'very' and, in our interpretation, äußerst 'extremely' and expressive

\(^1\)Morzycki [5] states that sentences with (gradable) adjectival intensifiers are exclamatives as well. See (Nouwen [6]) on predicate status of adjectives in intensification.
intensifiers (=EI) in (2)a like *sau 'totally, voll 'totally' and übelst 'totally' and argue that EI express a higher degree of intensifying than degree words.\(^2\)

We start our analysis with the definition of adjectives. Following Seuren \[9\] adjectives are a binary relation between degrees and properties: \(x\) has a quality and this quality exceeds a degree \(d\) (see Kennedy and McNally \[4\]: Beck \[1\]). Carpenter \[2\] formalizes the combination of (gradable) adjectival predicates with intensifiers: Let \(P\) be a set of individuals, \(G\) a gradable (adjectival) predicate, then\(^\text{INT}\) holds iff \(y\) ∈ \(P\) and there is a degree \(d\) such that \(G(d)(y)\). That is to say, \(y\) has the property denoted by \(G\) to the degree \(d\) and only few elements \(x\) ∈ \(P\), have the property denoted by \(G\) to the degree \(d\), compared to the set of individuals \(P\). The definition of intensifiers \(\text{INT}\) is given in (1):

\[
\text{INT} \overset{\text{def}}{=} \lambda P.\lambda G.\lambda y P(y) \land \text{some}(\lambda d.G(d)(y) \land \text{few}(P)(\lambda x.G(d)(x)))
\]

The difference between types of intensifiers is represented by the predicate \(\text{few}\) which is a binary relation between the comparison set \(P\) and those \(x\) ∈ \(P\) which have the quality denoted by \(G\). The cardinality of the extension of the binary predicate \(\text{few}\) in (3) varies depending on the type of intensifiers. Let \(\text{few}_1\) be the predicate of intensifiers such as *unglaublich*, \(\text{few}_2\) the predicate of intensifiers such as *sehr* and \(\text{few}_3\) the predicate of *wie*, and \(x \neq y\) then (2) and (3) hold for a model \(M\) and a value assignment \(g\) (in (5) we use \(\text{few}\) as a shorthand notation for \(\llbracket \text{few}(P)(\lambda x.G(d)(x)) \rrbracket^{M,g}\)):

\[
\llbracket \text{few}_x(P)(\lambda x.G(d)(x)) \rrbracket^{M,g} \neq \llbracket \text{few}_y(P)(\lambda x.G(d)(x)) \rrbracket^{M,g}
\]

\[
\Delta x = \llbracket \text{few}_1 \rrbracket - \llbracket \text{few}_3 \rrbracket \land \Delta y = \llbracket \text{few}_2 \rrbracket - \llbracket \text{few}_3 \rrbracket \land \Delta x < \Delta y
\]

Six combinations are possible with \(\text{few}_1\), \(\text{few}_2\) and \(\text{few}_3\), but just the combination of intensifiers with predicates \(\text{few}_1\) (type *unglaublich* `incredible`) and \(\text{few}_3\) (type *wie* `how`) yields grammaticality. We conclude that this is due to similar cardinalities of the denotations of \(\text{few}_1\) and \(\text{few}_3\). In contrast, the cardinalities of the denotations of \(\text{few}_3\) and \(\text{few}_2\) (type *sehr*

\(^2\)An additional discriminating property between degree words and EI is the former can be iterated while the latter cannot (Gutzmann and Turgay \[3\]): *das war sehr, sehr/ äußerst, äußerst cool* `that was very, very/extremely, extremely cool` vs. *das war unglaublich, unglaublich/sau, sau/voll/voll/ übelst,übelst cool* `that was incredible, incredible/totally,totally cool`
'very') and in addition of \textit{few}_1 and \textit{few}_2\footnote{Intensifiers with predicates \textit{few}_1 cannot combine with intensifiers with \textit{few}_2, witness for instance \textit{*das ist sehr unglaublich cool} ‘that is very incredible cool’} differ to the extent that the respective intensifiers cannot co-occur. The combinatorial restrictions indicate a graduality of intensifiers on a scale.

\textbf{References}


