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

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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<sup>1</sup> 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

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<sup>1</sup>(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.<sup>2</sup>

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  $Intensifier(G)(P)(y)$  holds iff  $y \in P$  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  $x \in P$ , have the property denoted by  $G$  to the degree  $d$ , compared to the set of individuals  $P$ . The definition of intensifiers  $INT$  is given in (1):

$$(3) \quad INT \stackrel{def}{=} \lambda P. \lambda G. \lambda y. P(y) \wedge some(\lambda d. G(d)(y) \wedge few(P)(\lambda x. G(d)(x)))$$

The difference between types of intensifiers is represented by the predicate *few* which is a binary relation between the comparison set  $P$  and those  $x \in P$  which have the quality denoted by  $G$ . The cardinality of the extension of the binary predicate *few* in (3) varies depending on the type of intensifiers. Let  $few_1$  be the predicate of intensifiers such as *unglaublich*,  $few_2$  the predicate of intensifiers such as *sehr* and  $few_3$  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 *few* as a shorthand notation for  $[[[few(P)(\lambda x. G(d)(x))]]^{M,g}]$ ):

$$(4) \quad |[ [few_x(P)(\lambda x. G(d)(x)) ] ]^{M,g} | \neq |[ [few_y(P)(\lambda x. G(d)(x)) ] ]^{M,g} |$$

$$(5) \quad \Delta x = |[ [few_1] ] | - |[ [few_3] ] | \wedge \Delta y = |[ [few_2] ] | - |[ [few_3] ] | \wedge \Delta x < \Delta y$$

Six combinations are possible with  $few_1$ ,  $few_2$  and  $few_3$ , but just the combination of intensifiers with predicates  $few_1$  (type *unglaublich* 'incredible') and  $few_3$  (type *wie* 'how') yields grammaticality. We conclude that this is due to similar cardinalities of the denotations of  $few_1$  and  $few_3$ . In contrast, the cardinalities of the denotations of  $few_3$  and  $few_2$  (type *sehr*

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<sup>2</sup>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  $few_1$  and  $few_2$ <sup>3</sup> differ to the extent that the respective intensifiers cannot co-occur. The combinatorial restrictions indicate a graduality of intensifiers on a scale.

## References

- [1] Sigrid Beck. "Comparison constructions". In: *Semantics: An international handbook of natural language meaning*. Ed. by Klaus von Stechow, Claudia Maienborn, and Paul Portner. Vol. 2. Berlin: De Gruyter, 2012, pp. 1341–1390.
- [2] Bob Carpenter. *Type-Logical Semantics*. Cambridge/Mass.: MIT Press, 1997.
- [3] Daniel Gutzmann and Katharina Turgay. "Expressive intensifiers in German: syntax-semantics mismatches". In: *Empirical Issues in Syntax and Semantics*. Ed. by Christopher Piñon. 9. Palgrave MacMillan, 2012, pp. 149–166.
- [4] Christopher Kennedy and Louise McNally. "Scale structure, degree modification, and the semantics of gradable predicates". In: *Language* 81 (2005), pp. 345–381.
- [5] Marcin Morzycki. "Adverbial modification of adjectives: Evaluatives and a little beyond". In: *Event Structures in Linguistic Form and Interpretation*. Ed. by Johannes Dölling and Tatjana Zybatow. Berlin and New York: Mouton de Gruyter, 2008.
- [6] Rick Nouwen. "Degree modifiers and monotonicity". In: *Vagueness and Language Use*. Ed. by Paul Ègre and Nathan Klinedinst. Palgrave MacMillan, 2011, pp. 146–164.
- [7] Rick Nouwen and Anna Chernilovskaya. "Two types of wh-exclamatives". In: *Linguistic Variation* 15.2 (2015), pp. 201–224.
- [8] Jessica Rett. "Exclamatives, degrees and speech acts". In: *Linguistics and Philosophy* 34.5 (2015), pp. 411–442.
- [9] Pieter A. M. Seuren. "The Comparative". In: *Generative Grammar in Europe*. Ed. by F. Kiefer and N. Ruwet. Dordrecht: Reidel, 1973, pp. 528–564.

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<sup>3</sup>Intensifiers with predicates  $few_1$  cannot combine with intensifiers with  $few_2$ , witness for instance \**das ist sehr unglaublich cool* 'that is very incredible cool'