

Scalar additive operators: Typology and historical development

Category: Oral

Scalar additive operators such as Engl. *even* and Germ. *sogar* are used to indicate that a given focus represents a particularly remarkable or unlikely value, in comparison to possible alternatives (e.g. *Even [the winds]_F obey him* vs. *?Even [his dogs]_F obey him*). In other words, they indicate that the focus occupies an extreme position on a (contextually given) scale of remarkability. Moreover, they trigger an additive inference similar to the presupposition associated with (non-scalar) additive operators such as *also*, hence the term ‘scalar additive operator’.

The degree of remarkability of a given focus value depends on the context. In the example given above *the winds* ranks higher than *his dogs* on the scale of remarkability. In other types of context, scales of remarkability are inverted, e.g. under negation: *Not even [his dogs]_F obey him* is more remarkable than *?Not even [the winds]_F obey him*, hence the unacceptability of *even* in the latter sentence. Such semantic or pragmatic effects are known under the label of ‘scale reversal’ (since at least Fauconnier 1975).

Engl. *even*, like Fr. *même*, Span. *aun* and many other comparable operators, can be used irrespective of the ‘direction’ of the relevant scale (canonical or inverted). Such operators are called ‘general scalar additive operators’. However, many scalar additive operators exhibit restrictions with respect to the type of context they can occur in, and the type of scale they interact with. For instance, Germ. *sogar* (cf. [1a]) can only be used in the context of canonical scales. In combination with inverted scales, German uses either the particle *einmal* (after the clause negator *nicht*, cf. [1b]) or the particle combination *auch nur* (in other contexts involving scale reversal, cf. [1c]). Parallel differentiations can be observed in many other languages, e.g. in Tetelcingo Nahuatl (cf. [2]).

In this talk we will propose a typology of scalar additive operators that is based on two parameters of classification, i.e. ‘direction of scale’ (‘canonical’ vs. ‘inverted’) and ‘polarity’ (‘positive’ vs. ‘negative’). Operators such as Germ. *sogar*, which can only be used in the context of canonical scales, will be called BEYOND-operators, as the focus value is always *beyond* expectation. Operators like *auch nur* and *einmal* will be called BENEATH-operators, since they indicate that a given focus value is located particularly low on the relevant canonical scale and becomes remarkable only as a result of scale reversal. Three major types of scalar additive operators can thus be distinguished: (i) *general* scalar additive operators, which can be used in all types of contexts (e.g. Engl. *even*); (ii) BEYOND-operators, which are only used in combination with canonical scales (e.g. Germ. *sogar*); and (iii) BENEATH-operators, which are used with inverted scales. BENEATH-operators can be further sub-classified depending on the type of polarity they are compatible with. There are three types: (iiia) *neutral* BENEATH-operators, i.e. operators which are used under both positive and negative polarity (e.g. Germ. *auch nur*); (iiib) *positive* BENEATH-operators, which are only used with positive polarity (e.g. Jap. *-dake-demo*, cf. [3]); and (iiic) *negative* BENEATH-operators, which are only used in the scope of negation (e.g. Germ. *einmal*).

The typology outlined above will be shown to allow for some generalizations concerning both the distributional behaviour of specific scalar additive operators and the make-up of entire systems of such operators. The restrictions observable in the languages of the world will be related to (attested and unattested) historical processes giving rise to the relevant types. The major developments are summarized in Diagram 1.

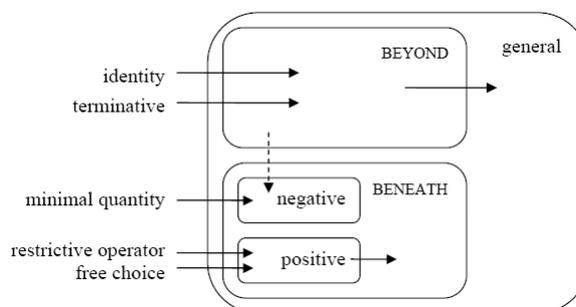


Diagram 1: Historical developments

The presentation will largely be based on data from texts (e.g. bible translations) as well as on primary data. In addition to a sample of 40 European languages selected native American, (South) East Asian and African languages will be taken into account.

Examples

(1) German

a. canonical scales: *sogar*

Sogar die Winde gehorchen ihm.

even the winds obey him

‘Even the winds obey him.’

b. inverted scales/negative: *einmal*

Nicht einmal seine Hunde gehorchen ihm.

not even his dogs obey him

‘Not even his dogs obey him.’

c. inverted scales/non-negative

Ich bezweifle, dass du auch nur ein Buch gelesen hast....

I doubt that you also only one book read has

‘I doubt that you’ve read even one book.’

(2) Tetelcingo Nahuatl

a. canonical scales: *asta* (< Span. *hasta*)

Pos asta yehyekatl hua ʔtsintlɪ tie-neltoka.

well even wind and water 3OBJ.HON-obey

‘Even the winds and the water obey him.’ [Mk. 4, 41]

b. inverted scales/negative: *nion* (< Span. *ni un*)

pero nionʔkɪ abelɪ kɪlɪɔya nion ka kariena

but nobody not.possible bind not.even PREP chain

‘But nobody could hold him, not even with a chain.’ [Mk. 5, 3]

c. inverted scales/non-negative: *mʔs sa* (lit. ‘though only’)

tɪʔ nekmʔtokas mʔs sa tietlake, nepahtes.

if I.will.touch.it though only his.clothes I.will.be.healed

‘If I only/even/so much as touch his clothes, I will be healed.’ [Mk. 5, 28]

(4) Japanese (Nakanishi 2007)

a. *-dake-demo* with inverted scales/positive polarity

[*John-wa [sono hon]-dake-demo yon-to-wa*] *odoroita.*

John-TOP [this book]-only-even read-that-TOP] was.surprised

‘I was surprised that John even read this (short) book.’

(i.e. ‘I didn’t expect that he would read anything.’)

b. *-dake-demo* is ungrammatical with negative polarity

**John-wa [sono hon]-dake-demo yom-ana-katta.*

John-TOP [this book]-only-even read-NEG-PAST

‘John didn’t even read this (short) book.’

Literature

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König, E. (1991). *The Meaning of Focus Particles. A Comparative Perspective*. London: Routledge.

Nakanishi, K. (2007). The semantics of *even* and negative polarity items in Japanese. In Baumer, D., D. Montero and M. Scanlon (eds.), *Proceedings of the 25th West Coast Conference on Formal Linguistics*, 288–296. Somerville, MA: Cascadilla Proceedings Project.