Deverbal Adjectives and Negatability Patterns
Word-internal NPI/PPI roots

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Topic

Baseless negative deverbal adjectives

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- **Broader topic**: un-affixation in Present Day German and its earlier stages. Insights into the nature of Jespersen’s cycle.
- **Phenomenon**: Negative adjectives where — if the negative affix is dropped —
  (a) base does not exist: *(un)aufhörlich* ‘incessant’,
  (b) we are uncertain whether the positive base exists: *(un)glaublich* ‘unbelievable’, or where
  (c) the positive base does exist but means something else: *(un)vergesslich* ‘unforgettable’. 
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  (c) the positive base does exist but means something else: *(un)vergesslich* ‘unforgettable’.

• We call these adjectives BNDAs. They are interesting because their interpretation still seems compositionally transparent and the formation is still **productive:** *unkaputtbar* ‘unbreakable’.
Background

un-affixation is not classical negation, and it is restricted

- **happy** vs. **unhappy** gradable (subsective) adjectives: contrariety/correlated to pos/neg emotions

- **dirty** vs. **clean** gradable (subsective) adjectives: contradiction/correlated to pos/neg emotions

- **american** vs. **unamerican** vs. **non-american**: Intersective adjective becomes gradable by affixation.

- **sad** vs. **unsad**: negative adjectives do not like un-affixation

- Zimmer's Generalization (1964): un- does not attach freely. If the root is negative in , un- may not attach.
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- **sad** vs. *unsad* negative adjectives do not like un-affixation

- Zimmer’s Generalization (1964): **un**- does not attach freely with non-deverbal roots. If the root is negative in , **un**- may not attach.
Background
Deverbal roots: *un-* attaches freely, no emotional coloring

- **married** vs. **unmarried** deverbal (non-gradable) adjectives: contradiction/neutral wrt emotions
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- A problem with negative roots? **disput-ed vs. un-disput-ed** ok!
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- Formation of the participle makes the negative root invisible for **un-**-affixation. (Siegel’s adjacency principle, pace Horn (1989, 277)) Bracketing matters: **un-[disput-ed]**.
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- Open question: Rebracketing?: **[un-disput]-ed ⇒ un-[disput-ed]**
Our problem with respect to BNDAs

- BNDAs are deverbal, compositional and productive: Their roots should exist. But they don’t.

- Sometimes the roots of BNDAs are negative in some sense - still un-affixation occurs. But it should not. Is there an independent explanation for that in case of BNDAs?

- Maybe BNDAs open a window onto the development of un-from a verbal affix to an adjectival affix.
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- German dialects still show stages of Jespersen’s cycle: Bavarian as a Negative Concord Language.
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- In the verbal paradigm, un-/en- is reinforced by minimizers and then widely lost as an overt marker in the development to NHG in the process of Jespersen’s cycle.
- German dialects still show stages of Jespersen’s cycle: Bavarian as a Negative Concord Language.
- Polysemy: Sometimes un- may go back to the German equivalent of ‘without’, for example in ungefähr ‘approximately’ (from ane gefærde ‘without bad intention’, lit. ‘without danger’). Denominal derivation.
The questions and some answers

- **What is the interpretation of BNDAs?**
  And how do they develop?

- **Answers in the literature**
  BNDAs are **lexical idiosyncrasies**, boring phenomenon (Lenz, 1995; Motsch, 2004), grammaticalized (?): This view cannot explain productivity/transparency.
  BNDAs are cases of **irregular simultaneous affixation** (Kempf, 2016): Ad hoc. Simultaneous affixation is usually inflectional, not derivational.
  BNDAs are just **relicts of an earlier stage** of a language. The bases are missing by accident. (Horn, 1989; Lenz, 1995; Reiße, 2006; Kempf, 2016; Schneider, 2019).

- **BNDAs just an accident?** Probably not.
Our Hypothesis

- **Suggestion**: The existence of BNDAs has to do with the development of verbal negation in German, and from a negative concord language to a double negation language, i.e. with Jespersen’s cycle.

- **Idea**: The base of a BNDA is kind of a NPI. un-affixation licenses a word-internal NPI. The base needs a wordmate licensor.

- We may observe a shift of the licensing paradigm from clausemate licensing to wordmate licensing (ultra-local licensing).

- **Prediction**: BNDAs with NPI bases should pair up with PPI counterparts in meaning: Duality groups (Löbner, 1990).
Overview

1. Introduction

2. BNDAs

3. Analysis

4. Further NPI evidence

5. Conclusion
Examples Type 1: Base does not exist (anymore)

- **-lich-adjectives**
  
  unaufhörlich  
  unerbittlich  
  undurchdringlich

- **-bar-adjectives**
  
  unabweisbar  
  unentrinnbar  
  unnahbar

Lenz (1995, 100ff.) lists 89 un-adjectives, where the positive base has been lost, but is attested for earlier language periods. One occurrence in DWB: Ich hab das ewig leben nit für aufhörlich gehalten, sondern für ewig gehalten. Frank chron.430b ‘I didn’t consider life ever ending’.
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Examples Type 2: Base is (still there but) rare

- **-lich-adjectives**
  - unglaublich → glaublich, ‘un-believable’

- **-bar-adjectives**
  - unabdingbar → abdingbar, ‘in-dispensable’

Glaublich ‘believable’ is attested to be licensed in the environment of kaum, ‘hardly’, an NPI-context and there is one occurrence of abdingbar in the DWDS-Kernkorpus in the environment of nicht, ‘not’.

⇒ NPI-effect?
Examples Type 3: Base means something else

- **-lich-adjectives**
  - unvergesslich
  - vergesslich
  - untröstlich
  - tröstlich
  - unverantwortlich
  - verantwortlich
  - 'un-forgetable'
  - 'un-consolable'
  - 'ir-responsible'

- **ein vergesslicher Mensch** ‘a forgetful person’ (active)
  - ein unvergessliches Ereignis ‘an un-forgetable event’ (passive)

The positive base serves as a predicate over the subject, and the un-adjective as a predicate over the object.

⇒ argument shift/passivization
Intermediate Summary

- BNDAs might not be a uniform phenomenon.
- Some cases remind us of NPI effects though: dropping negation leads to unacceptability. The first one to note this was probably van der Wouden (1997).
- Some BNDAs have a special semantics: “\texttt{not not} P anymore”, “impossible to \texttt{not} P”: dual negation.
- The verbal bases fall into different semantic classes (see Dowty, 1979, for classes): aspectual verbs, attitudinal verbs, causative verbs, verbs of motion. All these verb classes are somehow quantificational and/or rely on a scale.
- In addition: Ergativity might play a role (Horn, 1989, 279): a question of scope of negation/scale reversal?
Analysis Informally

• The aspectual adjective \textit{unaufhörlich} ‘incessantly’ relates alternative propositions to a contextually given time frame (or topic time).

• \textit{Es schneite unaufhörlich} ‘It was snowing incessantly’

• One possible partition for events:

\[
\begin{array}{c}
\text{PAST}_5 \text{ (time interval)} : & e_1 & e_2 & e_3 & e_4 \\
\hline
\text{time interval} : & t_0 & t_1 & t_2 & t_3 & t_4
\end{array}
\]

• All events must be events of snowing for our sentence to be true.
An analysis like that for **only**

Following (Krifka 2000) roughly

(1) *Es schneite unaufhörlich* ‘It was snowing incessantly’

Two meaning components: presupposition and assertion

(2) **Component 1:**

\[ \exists t [ t < t_0 \land PAST_5 \subseteq t \land SNOW(t) ] \]

(3) **Component 2:**

\[ \forall p [ p \in ALT \land \exists t [ t < t_0 \land t \subseteq PAST_5 \land p(t) ] \rightarrow p =_{ALT} SNOW ] \]

where \( =_{ALT} \) is aligned with the time interval \( PAST_5 \)

(4) **Alternatives:** \( ALT = \{ SNOW, \neg SNOW, \ldots \} \) intensions
Alignment informally

- There is a function $f$ from time intervals to alternatives, that relates possible alternative events that follow each other to a subinterval of the time interval (see Krifka 2000, 406 for a definition of alignment)

\[
\text{PAST}_5: \quad | \quad \quad | \quad \quad | \quad \quad | \quad \quad |
\]

\[
\text{ALT:} \quad \{\text{SNOW}([t_0,t_1)), \text{SNOW}([t_1,t_2)), \text{SNOW}([t_2,t_3)), \text{SNOW}([t_3,t_4)), \ldots\}
\]
An analysis like that for **only**, reformulation

(5) **Component 1:** $\exists t \left[ t < t_0 \land PAST_5 \subseteq t \land SNOW(t) \right]$

(6) **Component 2:** $\forall p \left[ p \in ALT \land \exists t \left[ t < t_0 \land t \subseteq PAST_5 \land p(t) \right] \rightarrow p =_{ALT} SNOW \right]$

where $=_{ALT}$ is aligned with the time interval $PAST_5$

(7) **Reformulation:** $\neg \exists p \left[ p \in ALT \land \exists t \left[ t < t_0 \land PAST_5 \subseteq t \land p(t) \right] \land \neg \left[ p =_{ALT} SNOW \right] \right]$

where $=_{ALT}$ is aligned with the time interval $PAST_5$
Aufhörlich does not allow for un-dropping

(8) **Component 1**: \( \exists t [t < t_0 \land PAST_5 \subseteq t \land SNOW(t)] \)

(9) \#\( \neg \exists p [p \in ALT \land \exists t [t < t_0 \land PAST_5 \subseteq t \land p(t)] \land [p =_{ALT} SNOW]] \)

where =_{ALT} is aligned with the time interval \( PAST_5 \)

NPIs have counterparts: PPIs (from aspectual verbs)

un-aufhörlich  ‘not stopping/continuing’  *aufhörlich\_\text{NPI}
anhänglich\_\text{PPI}  ‘starting’

The counterpart \textit{anhänglich} in fact avoids negation
(like some, Szablocsi (2004))

\begin{enumerate}
\item *unanfähig\_lich: No un-affixation
\item Es regnete anhänglich  ‘It rained initially’
\item Es regnete anhänglich \textit{nicht}  ‘Initially, it didn’t rain’
\item Ich glaube \textit{nicht} dass es \textit{nicht} anhänglich regnete  ‘I don’t think that it didn’t rain initially’
\end{enumerate}

Contrast: Es regnete \textit{nicht} \textit{ANfäh\_lich}, sondern \textit{unaufhÖ\_rl\_ich}  ‘It didn’t rain \textit{iNi}tially, but \textit{iNCESSantly.’}
**Anfänglich**: An analysis like that for *first*

Following Krifka 2000 roughly

(10) **Es schneite anfänglich** ‘It snowed initially’

(11) Component 1: $\exists t [t < t_0 \& t \subseteq PAST_5 \& SNOW(t)]$

(12) Component 2: $\forall p [p \in ALT \& \exists t [t < t_0 \& t \subseteq PAST_5 \& p(t)] \Rightarrow [p \geq_{ALT} SNOW]]$

where $\geq_{ALT}$ is aligned with the time interval $PAST_5$

**Idea**: anfänglich is like *erst* ‘first’, another PPI well known from the literature.
Anfänglich does not allow for un-affixation

(13) Reformulation: $\neg \exists p[p \in ALT \& \exists t[t < t_0 \& PAST_5 \subseteq t \& p(t)] \& \neg[p \geq_{ALT} SNOW]]$

where $=_{ALT}$ is aligned with the time interval $PAST_5$


(14) $\#\neg \exists p[p \in ALT \& \exists t[t < t_0 \& PAST_5 \subseteq t \& p(t)] \& \neg[p \geq_{ALT} SNOW]]$
NPI Evidence

1. Licensing conditions for the unnegated bases in earlier stages seem less strict (more research needed). Our hypothesis is that they pattern with sentential licensing in Present Day German: Negation, question, if-clause etc..

2. NPIs have counterparts: PPIs (compare some/any/no)

3. Negation may rescue a negated PPI. Negated PPIs behave like NPIs (Szabolcsi, 2004): I don’t think that John didn’t say something_{ppi}.

Thanks to Manfred Sailer.

How does un-affixation and BNDAs fit into the picture?
1 Earlier stages: comparative, question, conditional

Deutsches Wörterbuch von Jacob Grimm und Wilhelm Grimm, DWB
https://www.dwds.de/wb/dwb/

• künig Ätzel ist vast gnedig und güetig gewesen, mer dan gläublich ist Aventin 4, 1138 L. pace DWB ‘King Etzel was almost gracious and kind, more than (ever) believeable’

• wo die red zweiflig oder das gesetz zu rauhe sei, soll man alweg den sinn ansehen Seb. Franck sprüchw. (1541) 2, 189b pace DWB ‘if it is possible to not believe the speech’

• ich will in suochen als ein frünt, ob ich im tröstlich helfen künt Murner v. d. gr. Luther. narren v. 4515 Merker pace DWB ‘I want to look for a friend whether I can help him by consoling him.’
1 Alleged Counterexample: Denominal derivations

Denominal (un)anfänglich ‘with/without beginning’ has a different meaning from deverbal anfänglich ‘initial’. un-derivations are polysemous.

\[
\begin{align*}
\text{ungefährlich} & \quad \text{gefährlich} & & \text{‘without/with danger’} \\
\text{unbändig} & \quad \ast \text{bändig} & & \text{‘lit. without/*with bonds’} \\
\text{unanfänglich} & \quad \text{anfänglich} & & \text{‘without/with a beginning’}
\end{align*}
\]

There is a literal use of unanfänglich in the mystic/philosophical literature: was uranfänglich ist ist auch unanfänglich Rückert 8,629 pace DWB ‘If something is URANFÄNGLICH (primitively starting) it is without beginning, as well’; compare the more recent Das Sein ist nicht unanfänglich Khella 2014, pace Google ‘Existence doesn’t come without a beginning’. We thank reviewer No.1 for the (critical) remark on this topic.
2 Other examples: Dual negation and possibility

Not every counterpart element that does not allow for un-affixation is a PPI.

unvergesslich ‘impossible to not remember’

nicht erinnerlich npi ‘impossible to remember’

unerinnerbar ‘possible to not remember’

_a Ein unvergessliches Gefühl ‘An unforgettable feeling’
_b Ein nicht erinnerliches Gefühl ‘An unconscious feeling’
_c Ein erinnerbares Gefühl ‘A rememberable feeling’
_d Ein unerinnerbares Gefühl ‘A unrememberable feeling’

Tentative conclusion: un-affixation triggers low (verbal) negation.
2 Square of opposition

\[
\begin{array}{c}
A \quad \text{contraries} \quad E \\
\downarrow \quad \downarrow \\
\text{subalterns} \quad \text{contradictories} \quad \text{subalterns} \\
\downarrow \\
I \quad \text{subcontraries} \quad O \\
\end{array}
\]

- unvergesslich (all)
- nicht erinnerlich (no)
- erinnerbar (some)
- unerinnerbar (not all)
3 How does all this relate to non-deverbal un-affixation?

Dual negation may rescue certain PPIs, Szabócscsi (2004). We would like to transfer this observation to adjectives, even those with a negative base.

\[ \text{übel}_{ppi} \quad \text{‘bad’} \]
\[ \text{*un-übel}_{ppi} \quad \text{‘good’} \]

\( a \) Die Lösung ist übel \quad ‘The solution is bad’

\( b \) Die Lösung ist nicht unübel \quad ‘The solution is good’

Zimmer’s generalization seems questionable, if second negation occurs. Negation does not cancel out as Horn (1989) observes. Open question: Negative Concord?
Open question: How is the adjective analyzed (my other talk): Positive operator intervenes between sentential negation and internal un-affixation.
Pattern: \( \text{nicht un-übel} \Rightarrow \text{NEG POS NEG-übel}_{ppi} \) in accordance with Siegel’s adjacency principle (for sentential negation though).
And Zimmer’s generalization may be related to that pattern, as well.
Conclusions, questions, remarks

- BNDAs show patterns of negatability: no accident.
- **un-affixation** may signal low negation in interaction with an existential quantifier (in addition to high negation).
- Patterns of negatability are related to the topic of NPI/PPI development.
- The pairs of BNDA and counterpart may differ in licensing: wordmate licensing vs. sentential licensing vs. non-local licensing.
- Many open questions: What are the licensing conditions for the bases of BNDAs? How does -lich and -bar formation compare?
- Sometimes a degree word may rescue a base: *verdaulich ‘digestable’ vs. leicht verdaulich vs. unverdaulich. What is the relation between un- and degree words?
Thank you!

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References


