

Mit -wärts geht's abwärts

The descent of a German suffix(-oid)

Claudia Posch, Gerhard Rampl
University of Innsbruck, Austria

Abstract

This poster is concerned with the dimensional spatial deictic **suffix(-oid)**: *-wärts*. *-wärts* is used to form local deictic adverbs indicating a certain direction more or less specifically.

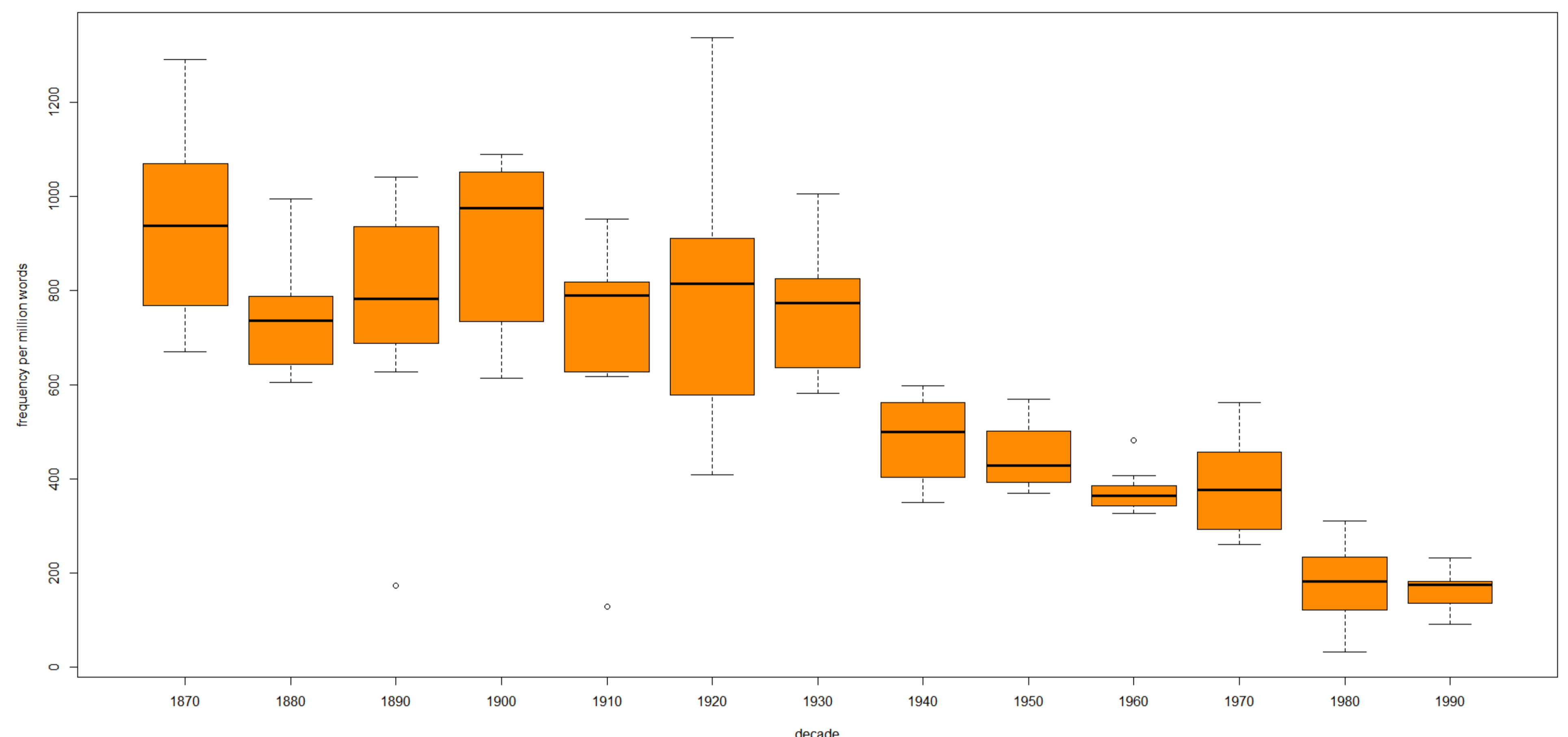
We investigate **formation** and **productivity patterns** of *-wärts* in the corpus *Alpenwort* (1869 - 1998).

The word formation patterns *-wärts* allows for result in

1. lexicalized adverbs such as *auswärts*, *einwärts*, *aufwärts*, *abwärts*, etc.
2. exceptional combinations with different nouns and even names, such as *mekongaufwärts*, *stripsenjochwärts*, *höhlenauswärts*, *stradawärts*, etc.

The aim of our study is to show if this **suffix(-oid)** is still productive nowadays.

Figure A: all derivations with *-wärts* from 1869 - 1998



Introduction

Since the 1870s the **Austrian Alpine Club** (ÖAV, Österreichischer Alpenverein) publishes its journal *Zeitschrift des Deutschen und Österreichischen Alpenvereins* (ZAV) in the form of an almanac. The project *Alpenwort* digitalized the ZAV and turned it into a fully POS-tagged corpus, which is integrated in *IMS Open CWB* (CQPweb) as well as in the platform *Hyperbase*. It will be freely available for the research community in different formats by October 2017.

The corpus consists of 42.000 book pages with an average count of 300 pages per year (min. 108, max. 848). A particular challenge in creating this corpus were the texts of the years 1915-1961, as they are printed in **German Fraktur** font (ie Gothic script).

The texts in *Alpenwort* are articles about very diverse issues, but all of them are in some way concerned with **mountains** and **climbing**. They are alpinists' reports of tours, expeditions and routes as well as scientific contributions on topics like onomastics, technological developments and so on. Thus, many texts in the corpus are concerned with describing **landscapes** and **space** and **moving** within both, as well as **directions**. It is therefore expected that a wide variety of deictical expressions such as the suffix(-oid) *-wärts* will occur in the corpus.

Methods and Materials

Our **study** uses a test version of the corpus *Alpenwort* with a *CQPweb* installation on a local server. The corpus was processed **semi-automatically**, tools used in the Zurich corpus project *Text&Berg* were adapted for use in the *Alpenwort* corpus (e.g. a trained TreeTagger, Named Entity Recognition, etc.).

Alpenwort contains 123 volumes of the ZAV and contains 18.036.422 **tokens** and 623.527 word **types**. In *CQPweb* all occurrences of the suffix(-oid) *-wärts* in the corpus (**11.357**) were extracted and visualized with the statistical analysis tool *r*.

To flatten out peaks the texts were grouped into **decades**. Findings were then categorized according to **word formation type**. Adverbs with *-wärts* consist of

- a) simple compounds with other lexicalized local adverbs such as: *ab-*, *auf-*, *aus-*, *ein-*, *vor-*, *weg-*, *rück-*, *nieder-*, *ober-*, *rück-*, *seit-*, *seits-*, *ober-*, *unter-*, ...
- b) combinations with other lexicalized local adverbs, such as: *linksrück-*, *schrägseit-*, *seit-*, *tiefen-*, *unter-*, ...
- c) compounds with other word types like nouns and named entities, such as: *äquator-*, *bernina-*, *schlucht-*, *hütten-*, ...
- d) combination of a) and c).

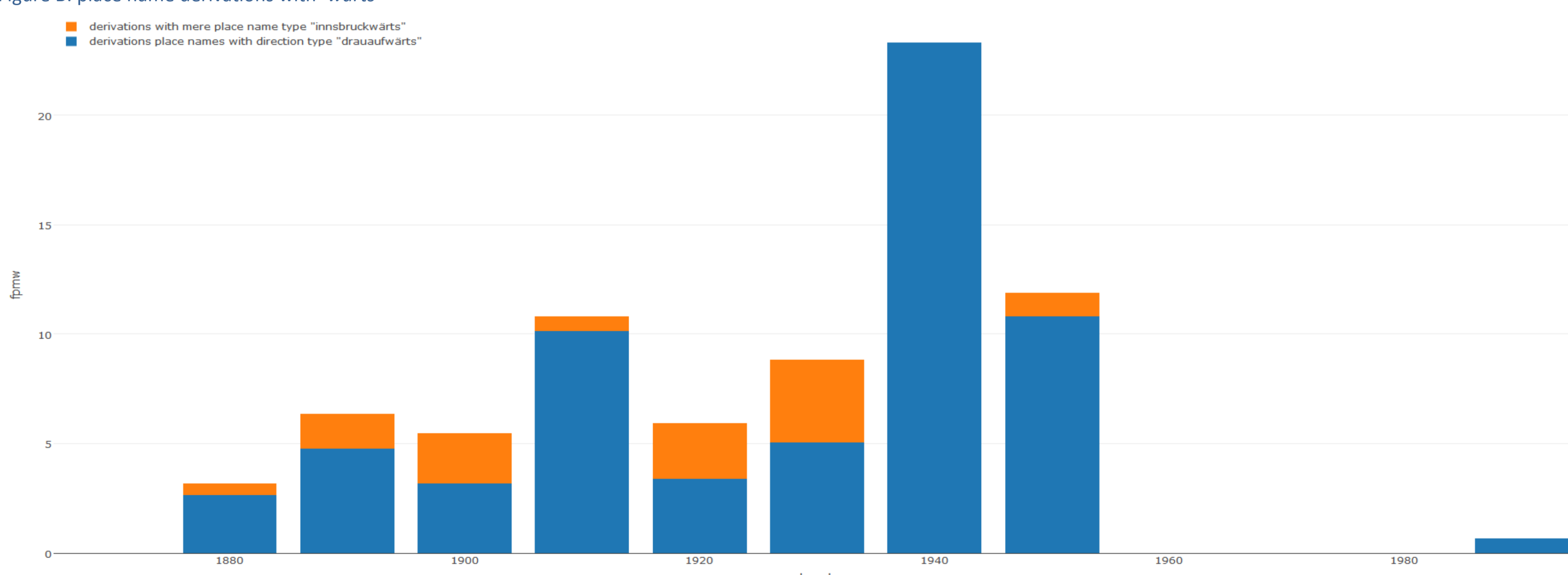
Results

We depart from the hypothesis that *-wärts* is still a **productive** suffix(-oid). Dargiewicz states recently that adverbial derivation is **vital** in modern German and specifically mentions *-wärts* as an example (2012, 64).

Figure A shows the overall decline of use of *-wärts* as a formative for directional adverbs per decade. In the year 1923 *-wärts* reaches its highest frequency (1.338,19 in 62.024 words), in 1989 it arrives at its lowest fpmw (31,73 in 126.057 words). Concordances for *-wärts* in 1923 show that its occurrences are not limited to a specific article or text in this volume. In the 1989 volume there are just 4 findings in total (pragmatics: stylistic function). Altogether average frequency constantly declines from 1920 on. The plot thus shows (indicated by the **bold black line**) a clear trend that *-wärts* is being less frequently used in recent volumes of the ZAV.

Figure B shows the development of *-wärts* compounded with **place names**, an indicator of vitality. The blue bar shows compounds with a directional element (*auf-*, *ein-*, *aus-*, etc.). Orange indicates place names directly compounded with *-wärts* referring to a point of arrival (*innsbruckwärts*, etc.). These are not frequent in general but cease to exist after 1940.

Figure B: place name derivations with *-wärts*



Conclusions

Even though the suffix(-oid) *-wärts* is considered vital in German, our findings show that it is in fact becoming **unproductive** or already unproductive – at least in the corpus *Alpenwort*. A comparison with the *Swiss Text Corpus* confirms these findings. A qualitative analysis of combinatory elements indicates that the suffix(-oid) *-wärts* is no longer used to produce directional adverbs of the type: *name + -wärts*.

Only highly lexicalized items like *aufwärts*, *abwärts*, *vorwärts*, etc. are still used in the 1990s, but also less frequent.

Contact

Claudia Posch, Gerhard Rampl
Inst. f. Sprachen und Literaturen: Sprachwissenschaft, Universität Innsbruck
Email: claudia.posch@uibk.ac.at, gerhard.rampl@uibk.ac.at
Website: <http://sprawi.at/alpenwort>

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