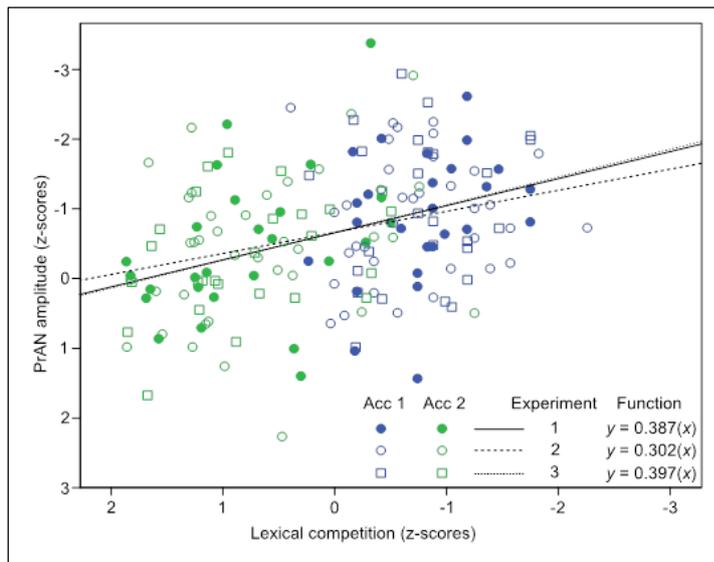


The Humanities lab at Lund University is involved in several Swe-Clarín-related research collaborations. In this newsletter we focus on two of them.

In the first project we help a group of neurolinguists (Pelle Söderström, Mikael Roll and Merle Horne) by developing a method for calculation of a lexical competition score. The method consists of constructing a database with word initial fragments (WIFs) and syllables extracted from the Swedish NST lexicon and then frequency weighting this with word frequencies from the Swedish PAROLE corpus. This was then used in a study of ERP effects. The study presents results from three experiments in which we investigated a proposed ERP effect, the pre-activation negativity (PrAN). The PrAN has previously been found in response to word-initial fragments and the hypothesis was that it is an index of the predictive certainty as to how a word will end. It was found that the PrAN is sensitive to lexical competition, in particular to the number of continuations which can complete a given word-initial fragment, lending support to the idea that it reflects a within-word pre-activation mechanism.



Linear regression lines for the three experiments. The solid line and dots represent data from Experiment 1, the dashed line and round unfilled dots represent data from Experiment 2, and the dotted line and squares represent data from Experiment 3. The plot shows that PrAN amplitudes became more negative with decreasing lexical competition in all experiments, corroborating the hypothesis in the present study.

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b_ao+ NN SINGLE ACC1 8 boys båg bål bår bård bås båt båts
b_ao+ NN INITIAL ACC1 9 båken bålen bålens bålet båren båsen båset båte
båtens
b_ao+ NN INITIAL ACC2 83 bågar bågarna båge bågskytta bågskyttarna
bågskytte bågsgåg bålår bålverk bålverket bålår bålarna bålbararna bårde
bårhus bårhusen bårhuset bårtäcke bårtäcket båtår båtarna båtarnas
båtbenet båtbyggen båtbyggare båtbyggare båtbyggaren båtbyggarna
båtbyggeri båtbyggeriet båtflyktingar båtflyktingarna båtfolk båtfolket
båtfärd båtfärden båtförare båtförbindelse båthamn båthamnarna båthamne
båthus båthuset båtklubb båtklubbar båtklubbarna båtklubben båtlast
båtlaster båtliv båtmodeller båtmotorer båtmåssa båtmåssan båtmåssor
båtmossa båtmössan båtmössor båtnad båtolycka båtplats båtplatser
båtplatserna båtregistret båtresa båtresan båtresor båtskatt båtsåsong
båtsåsongen båtjuvar båttrafik båttrafiken båtture båtturen båturer
båttyp båttypen båttyper båtvarv båtägare båtägaren båtägarna
    
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Example of lexical competitors for the WIF *bå* [bo:] (coded as *b_ao+* in the lexicon). On each line, going from left to right, the fields (separated by space) contain WIF, word class (NN = noun), syllable position, word accent and number of competitors. This is followed by a list of the competitors.

A demo version of the database is available at goo.gl/kDi04J and a

manuscript describing the research has been submitted to the journal *Brain Research*.

In the second project we collaborate with the MEPAC project run by Anna W Gustafsson and Charlotte Hommerberg. This project investigates the use of metaphor in the experience of end-of-life care. It involves a systematic analysis of the metaphors used by members of different stakeholder groups (patients, unpaid family carers and healthcare professionals) in a corpus consisting of interviews and contributions to online fora. So far, we have primarily been involved in the data collection but we have undertaken an exploratory topic modelling analysis using LDA. One way to visualise this is through LDAvis, where words and topics can be explored interactively (demo at goo.gl/gIBRK3). It is a somewhat blunt instrument, but it is possible to identify topics such as 'treatment', 'family' and 'diet'. An application for supplementary funding of this research has been submitted to the Crafoord foundation.

Collections and Research

Late February 2016 Digisam, <http://www.digisam.se/index.php/en> the national coordination of digitisation, digital preservation and digital access to cultural heritage in Sweden, co-arranged a seminar with SWE-CLARIN, the Nordic Museum <http://www.nordiskamuseet.se/en> and Riksbankens Jubileumsfond, <http://www.rj.se/en> , the swedish foundation for humanities and social sciences. The participants represented the five projects given research grants in last years focus call from the RJ on "Collections and research".

The background is the urgent need for a deeper dialogue between memory institutions and universities. We have followed with interest the RJ's initiatives to find and develop various research opportunities in the collections of the Swedish memory institutions. We have also noticed a growing enthusiasm for digital humanities in academia. Thus, this seemed to be the right time to provide an opportunity for supported projects to get to know each other a bit and maybe find new paths to cooperation. We also wanted to take this opportunity to give an introduction to language technology in general, and the ways SWE-CLARIN could support humanities scholars in particular. Lars Borin from Språkbanken, the swedish language bank, presented the CLARIN initiative as such, and got many queries about how to do new and exciting things like topic modeling or name entity recognition.

Pelle Snickars, HUMlab at Umeå university, opened the day presenting "Digital models", a research collaboration between HUMlab and Tekniska museet, the national museum of science and technology http://www.tekniskamuseet.se/1/start_en.html In three parallel studies the researchers will look into different collections: the original mechanical alphabet constructed by Christopher Polhem (1661-1751) https://en.wikipedia.org/wiki/Christopher_Polhem , the archive left by one of the museum's founders Carl Sahlin and the institution's yearbook Daedalus (1931-2015). Objects, books and papers will be digitized and examined with various tools and the plans include 3D scanning, Minecraft and advanced language technology.

Patrik Granholm, KB, the national library of Sweden, <http://www.kb.se/Innovation/hjalp/english> and Roger Andersson, Center for Medieval Studies, Stockholm university, introduced "TTT - Text till tiden!" The project aims to create a complete catalogue of the 234 Old Swedish manuscripts in charge of the research libraries in Stockholm and Uppsala. This includes TEI encoding of the content, and involved researchers will focus on themes such as language switching in the texts, form, context and influences.

Claes Gejrot and Christian Lovén, Swedish National Archives <https://riksarkivet.se/startpage>, and Carl-Niclas Odenbring, the Institute for Language and Folklore <http://www.sprakochfolkminnen.se/om-oss/verksamhet/about-the-institute.html>, presented "TORA" run in collaboration with the Swedish University of Agricultural Sciences, Stockholm and Uppsala University. The starting point is the topographical registers at the National Archives and the goal to create a national standard for the linking of information about geographical units (farm lands, place-names) in various historical sources and database

The Nordic Museum's Jonas Engman and Jonas Hedberg presented "Everyday Images", a collaboration between the Nordic Museum and Stockholm University. The project is based on a couple of major mid 20th century collections in the museum's archives - Gunnar Lundh's photographs (300 000) and transcribed query list responses (500 000 pages). It aims to examine for instance how the emerging welfare state is pictured in the collections, and how the text and image sources may differ or overlap.

Unfortunately, we were lacking representation from the artist project run by the Centre for Digital Humanities <http://cdh.hum.gu.se/english/?languageId=100001&disableRedirect=true&returnUrl=http%3A%2F%2Fcdh.hum.gu.se%2F> at the University of Gothenburg in collaboration with several art museums and others. The project aims to compile all types of materials on the Swedish painter Ivar Arosenius (1878-1909) https://en.wikipedia.org/wiki/Ivar_Arosenius - paintings, drawings, photography, letters, objects, physical and social environment - to examine how digitization may make it possible to "evoke the artist from the archives."

This year's "Collections and research" call received 40 full applications and the RJ are this year hoping to support eight or maybe ten projects. Decisions will be made before midsummer, and many of us look forward to take part of new research issues, new partnerships and new fruitful seminar days for the joint development of the digital humanities.

If you want more information about the projects, please get in touch and I'll put you in contact with the scholars involved.

Johanna Berg, Digisam

Calendar

Maj 9th: Swe-Clarín on tour stops in Stockholm. The theme is the Nordic Museum questionnaires.

<https://sweclarin.se/swe/evenemang/swe-clarin-pa-turne-l>

September: Launching event for the Swe-Clarín toolkit

November: Another Swe-Clarín on tour stop in conjunction with SLTC, the Swedish Language Technology Conference, in Umeå.

