

### **HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI HUMANISTINEN TIEDEKUNTA HUMANISTISKA FAKULTETEN FACULTY OF ARTS**

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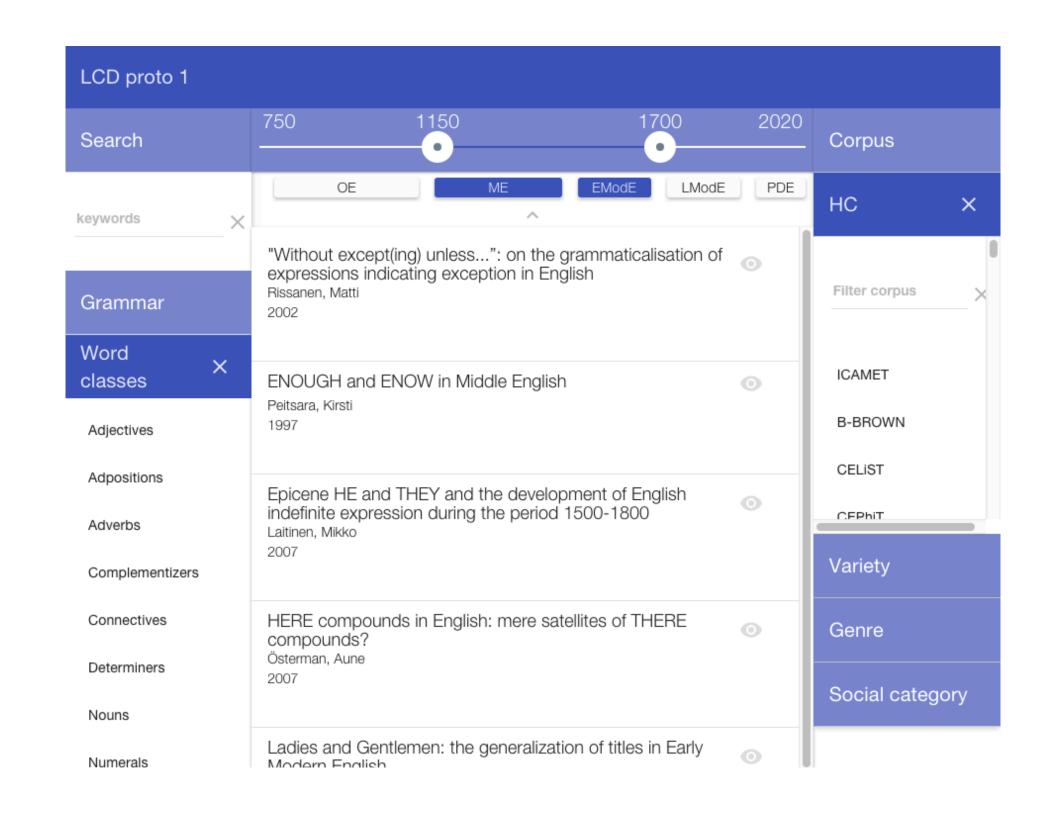
# MAKING NEW USE OF OLD RESEARCH

# the Language Change Database

### DISCOVER

The Language Change Database (LCD) draws together earlier corpus-based research on English historical linguistics and makes the data available (licenses permitting) through programmable interfaces (APIs) for anyone to utilize in their own applications or analyses.

#### Search interface



LCD's default search application currently allows users to find relevant research articles by making simple keyword searches, filtering results using facets such as corpus, variety and genre, and utilizing the hierarchically structured grammar terms to drill down to more specific terms.

The web application will provide a "shopping cart" type of functionality where users can create their own list of potentially interesting research data and finally "checkout" related data in a single package.

## MAINTAIN

LCD data is administrated using a dedicated web application, which is visible to everyone, but where modifications require a user account. All input data is tagged with status (Draft, Under review, Final), and more detailed comments can be attached to any piece of data through annotations.

The goal is to make the maintenance of LCD a collaborative effort, where researchers can add, update and comment on LCD's content.

### RE-USE

# **Normalization widget**

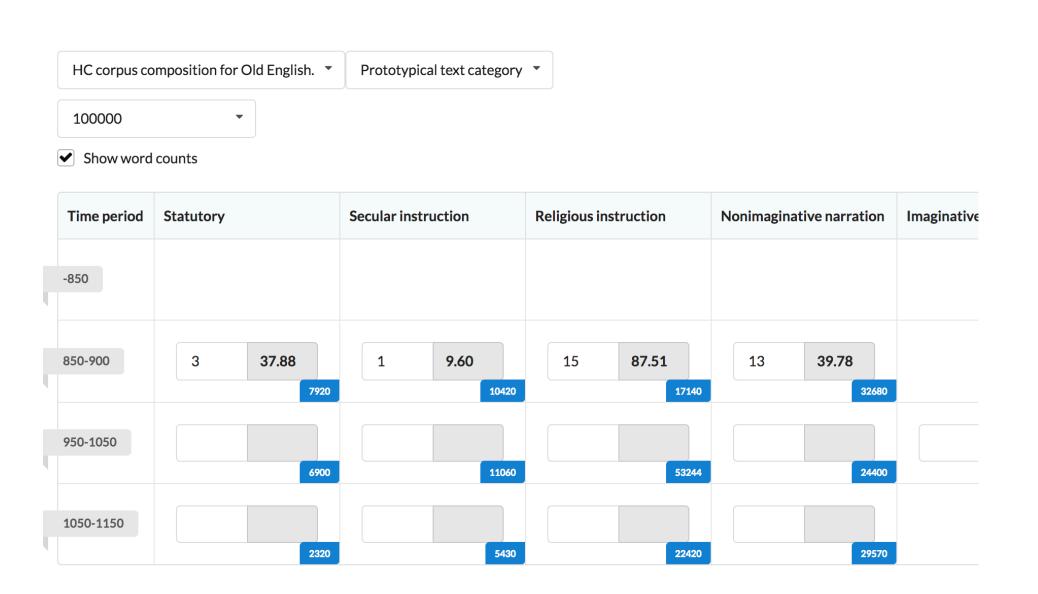
Using the corpus composition files that describe the corpus structure we have created a simple web application that can be used to **normalize** absolute frequencies of linguistic items reported in previous research or observed by the user. The example on the right allows users to normalize values based on prototypical text category and text type within a time period in the Helsinki Corpus. The corpus structure data available in the LCD has chiefly been extracted from the Corpus Resource Database (CoRD).

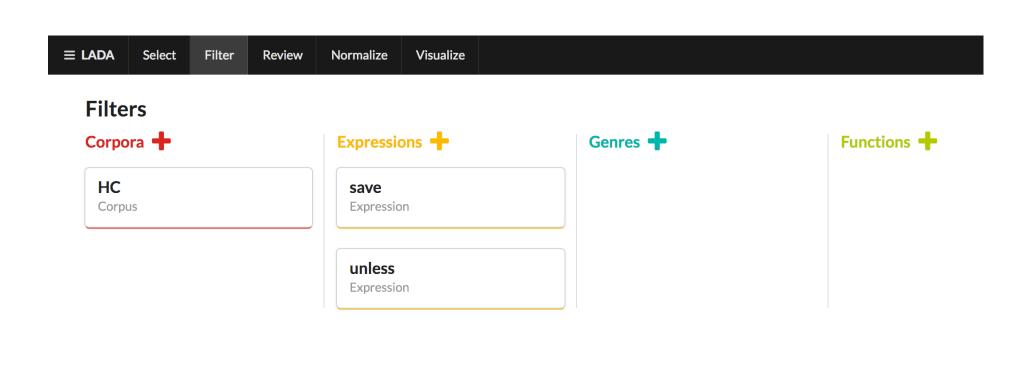
#### LADA

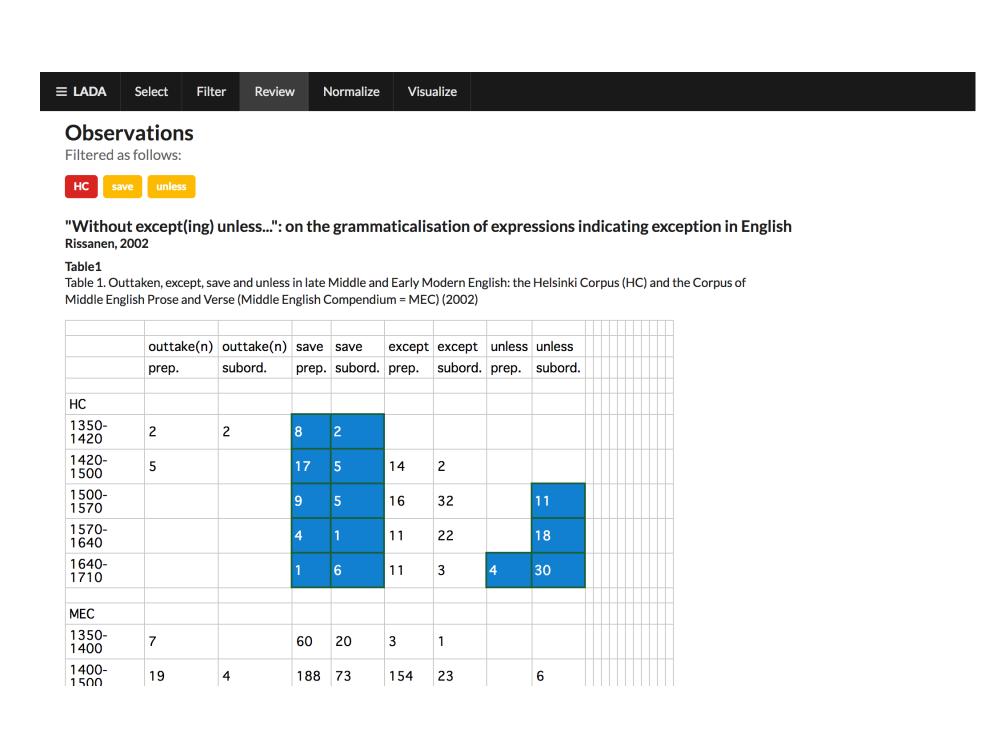
#### LCD Aggregated Data Analysis workbench

LADA is tool that facilitates meta-analyses of previous research using annotated versions of Excel data files downloaded from the LCD. In contrast to LCD, which is a centralized service run by VARIENG, LADA is a standalone Python software that can be downloaded and installed on the researcher's own computer.

LADA first translates spreadsheets into **RDF** graph data structure that can be combined and queried. The user can then reduce this dataset into potentially relevant values by **filtering** it based on certain corpora, genres and expressions. After **reviewing** the resulting dataset and possibly manually excluding further values, LADA uses corpus composition data to **normalize** all the values to a common base. Finally, the user can create a configurable **visualization** based on the filtered and normalized dataset. This new dataset can be then exported and **shared** with another researcher, who can reproduce all the steps on his/her own computer.







### Study details

- Genre
- Variety
- Grammar
- Dialectology
- Language contact
- Sociolinguistics
- Pragmatics
- Discourse analysis
- Statistical methods

### Corpus

### Study

- Summary of results Time period
- Topics

### Publication

Bibliographic data

#### Corpus composition file

Annotaated data file

Data file

**Publication file**