

SweLL-UD: A Treebank of L2 Swedish Essays

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Arianna Masciolini with Maria Irena Szawerna and Elena Volodina

Språkbanken Text, Department of Swedish, Multilingualism, Language Technology, University of Gothenburg, Sweden

UD Treebanks in SLA Research

Advantages of UD treebanks in corpus-based Second Language Acquisition research:

- uniform morphosyntactic annotation layer allowing for qualitative and quantitative **cross-lingual comparisons**:
 - between standard and learner language
 - between a learner's L1 and L2
 - between different L2s
- possibility to carry out **grammatical error retrieval and analysis** and **automatic feedback generation** without explicit error tagging e.g. if learner sentences are paired with corrections (**parallel L1-L2 treebank**)
- **semi-automatic annotation** with the help of the existing UD parsers

Existing Second Language UD Treebanks

language	name	# sentences	status	parallel
Chinese	CFL	451	released	no
English	ESL	5124	retired*	yes
Italian	Valico	398	released	yes
Korean	KSL	7530	released*	no
Russian	?	500	in progress	yes
Swedish	SweLL	~5000	in progress	yes

* available through GitHub but not part of the latest UD release

The SweLL-UD treebank

Objectives

- end goal: building a **training-scale treebank** of L2 Swedish
- within the next few months: releasing a high-quality **500-sentence test set**
- at the training school: further experimenting with **annotation of L2 essays** and discussing **open questions**

Data

Source corpus: **SweLL-gold** (Swedish Learner Language corpus)

- **text type**: short essays
- **learners**: adult L2 Swedish students with various language backgrounds and proficiency levels
- **annotation**: manual correction + error tagging + pseudonymization
- **size**: 502 essays, ~5000 parallel sentences
- **license**: CLARIN-ID -PRIV -NORED -BY (but the data can be and has been redistributed as long as it is not possible to reconstruct full essays)

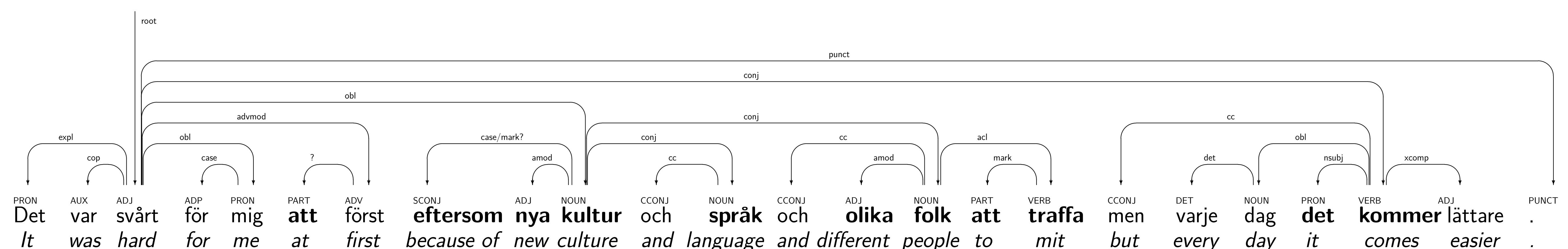
Project status and plan

1. **preprocessing**: sentence pair and metadata extraction, conversion to CoNLL-U, shuffling and creation of a train, development and test split ✓
2. **preliminary annotation experiments** with a small annotation team ✓
3. **L1 (corrections) annotation**:
 - (a) automatic pre-annotation with an off-the-shelf parser✓
 - (b) manual validation (larger annotation team including both L1 and L2 Swedish speakers)
4. **L2 (originals) annotation**:
 - (a) automatic pre-annotation with a custom parser
 - (b) manual validation with the larger annotation team

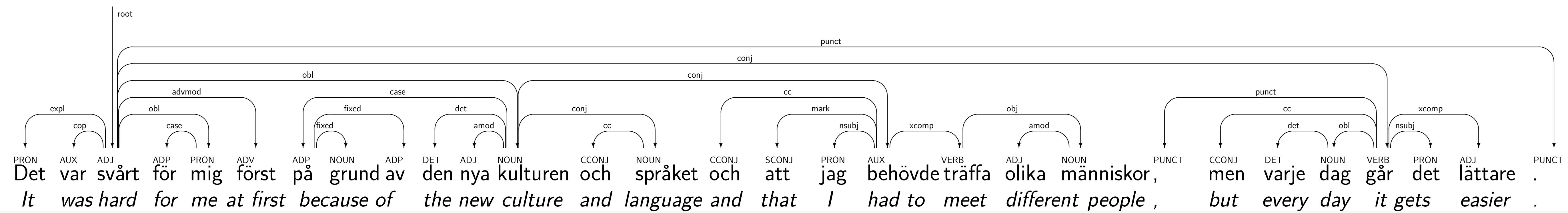
Open questions

- **tooling** - desiderata:
 - tree visualization
 - no installation required (as with Eevee)
 - parallel editing/viewing (as with STUuD)
- **L2-specific guidelines**:
 - to what extent should take into account the syntactic annotation of a the correction when annotating an original sentence?
 - what is a good balance between the general principle of *literal reading* and keeping the two trees as structurally similar as possible?
 - should the existing L1-specific guidelines be applied when annotating constructions the learner borrowed from their first language?

Original sentence from a learner essay (errors highlighted in bold)



Corresponding correction hypothesis



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