PANTERA: a parallel corpus to study translation between Portuguese and Norwegian

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PANTERA: translation between Norwegian and Portuguese

PANTERA: *Portuguese And Norwegian Texts for Education, Research and Acquisition of relevant cultural and linguistic capabilities*

- a parallel corpus modelled on COMPARA (modelled on ENPC) but with more information
- an additional coupling to STIG (*System for Translation Information in General*) under development by DMLF at UiO
- growing every day: see quantitative description at the PANTERA site, `http://www.linguateca.pt/PANTERA/`

The digitization and revision of PANTERA's texts has been financed by ILOS/UiO through several research assistants: Heidi Jansen, Fernanda Veloso, Peder Østebø.

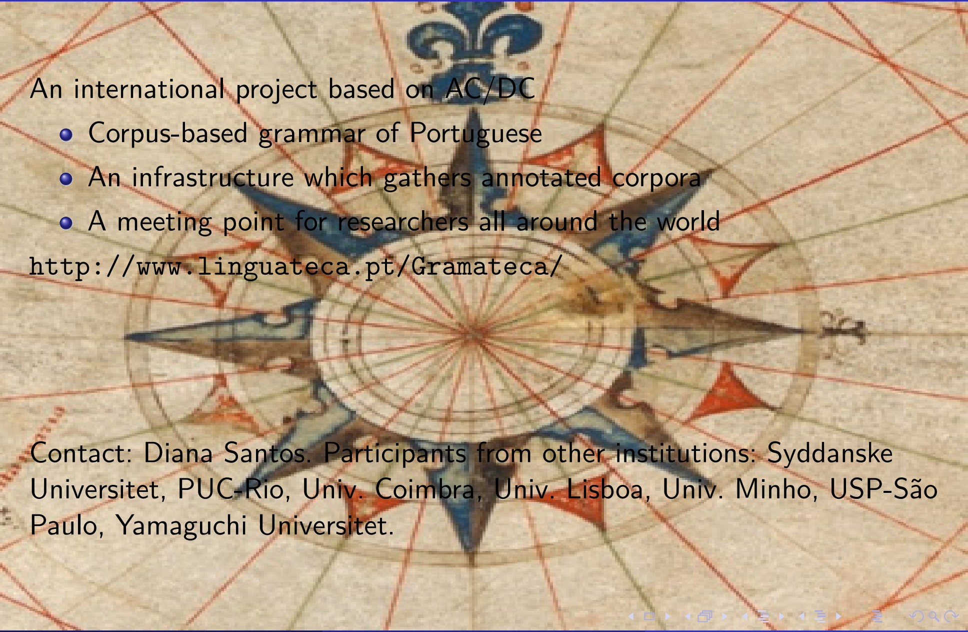
Structure of the talk

- Context: Linguateca, Gramateca, Travelling emotions, STIG, ...
- Use of PANTERA for linguistics: one example
- Visualization of translation between the two languages
- Use of PANTERA for teaching (of language and of translation)

Context: Linguateca

- **Linguateca** is a network for the computational processing of Portuguese (language) started by Portuguese research ministry after a public discussion in Portugal (1988-1989) about scientific policy.
- It was a distributed initiative with several nodes, the leading one at SINTEF in Oslo, which in addition to resource development had a heavy workload on evaluation venues.
- From 2010 onwards its funding was severely reduced, but the repositories and a subset of the projects has continued to this day, with some new projects happening due to my work at UiO.
- Gramateca, and PANTERA, are just two of them.

Context: Gramateca



An international project based on AC/DC

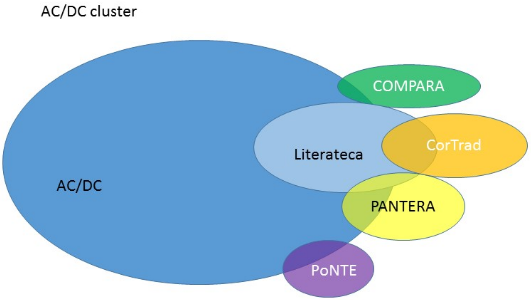
- Corpus-based grammar of Portuguese
- An infrastructure which gathers annotated corpora
- A meeting point for researchers all around the world

`http://www.linguateca.pt/Gramateca/`

Contact: Diana Santos. Participants from other institutions: Syddanske Universitet, PUC-Rio, Univ. Coimbra, Univ. Lisboa, Univ. Minho, USP-São Paulo, Yamaguchi Universitet.

AC/DC cluster

Bird's eye view of the (highly annotated) textual resources:



Context: Travelling emotions

An inter-departmental research network at the Arts Faculty (HF) at UiO, for the **study of emotions in language**, and the way they (their words, concepts and forms of expression) have changed/travelled in time, place – and in society and text.

Core group:

- Jens Braarvig (IKOS)
- Anne Golden (ILN)
- Diana Santos (ILOS)

See `http://www.hf.uio.no/iln/forskning/nettverk/digital-humaniora/travelling-emotions.html`

Travelling emotions 2

I chose a sub-sub-subproject in this large network to illustrate the potentialities of mixed methods, understood here as the intelligent combination of quantitative and qualitative approaches. The study of *Respeito* (respect) in Portuguese and its (un)correlation in Norwegian.

Since all words were automatically classified as emotions, we can also study the group(s) that include(s) *Respeito* (with several lexical items), which are: HUMILDADE (humbleness) and ADMIRAÇÃO (admiration).

Respeito in Portuguese

Using the AC/DC corpora (which underlie Gramateca, 1.28 billion words), we can have a coarse picture of this and morphologically related words.

	CP	all
respeitar	20037	70375
respeito	18815 - 7336	200784
desrespeito	1561	9394
respeitável	1137	5554
desrespeitar	1124	7585
respeitado	963	8736
respeitoso	231	2917
respeitinho	34	41
desrespeitosamente	2	27
respeitosamente	0	925
	44,014	306,338

Using parallel corpora

One way to look at the alignment (or not) of this “emotion” is to use translations as semantic data, something I have argued ever since I started my PhD.

So, using PANTERA , one can both

- look at the general picture,

  ```
  ([sema="emo.*(humildade|admirar).*"] |
  [lema="respeitável|respeito|respeitar...respeitinho"])
  ```

  [data from 12 Augusto 2017]

ori	33	246197	1.32e-4
trad	50	474898	1.05e-4

- or look at specific cases. (See translation examples, http://www.linguateca.pt/Diana/download/RespeitoPANTERA.pdf)

Looking at how Portugal sees Norway using translation

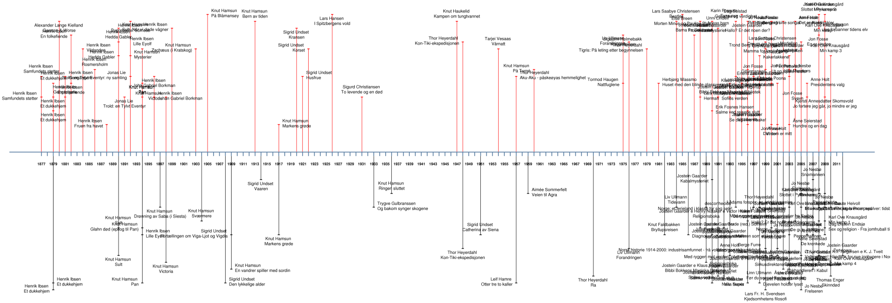
One different way one can use PANTERA – actually, STIG is much better because it includes way more information on the texts that are included in PANTERA – is to appreciate the choices of translations of Norwegian texts into Portuguese.
In the *Scandinavia through Sunglasses. Spaces of Cultural Exchange between Southern/Southeastern Europe and Nordic Countries*, UiO, 28-29 september, Ana Rita Ferreira and I will discuss the translations published in Portugal:

- Which texts were selected?
- Was there mediation through other languages/cultures?

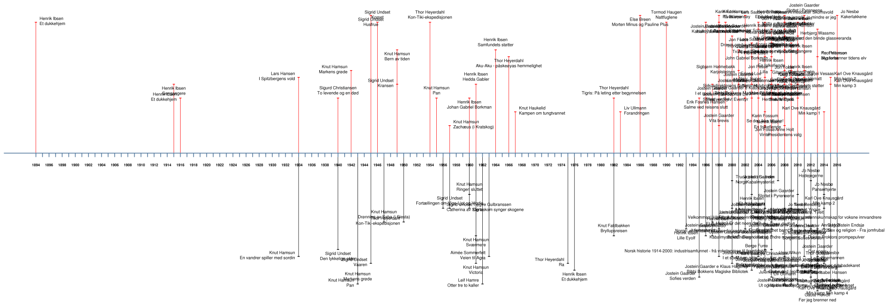
Some problems associated with macrostudies

- Initial guesses that turned out to be wrong (no Norwegian original):
    - Haraldson, Lars. Contes et legends. Les vikings, 2002, Nathan, Paris
    - Heyerdahl, Thor. Sjøveier i Polynesia, 1968, Gyldendal, Oslo
- Works not published in the original language:
    - Hovdenakk, Per. Kjell Nupen: viagem sem fim, 2001, Galleri Wang, Oslo
    - Lygre, Arne Ingolv Sunde. Homem sem rumo. SESC Avenida Paulista, São Paulo, 2007, Teatro da Comuna, Lisboa, 2008
- (Original) works with different names in different editions
    - Haukelid, Knut. Kampen om tungtvannet, 1953, Essforlagene – before: Det demrer en dag, 1947, Nasjonalforlaget
- Works that come from different originals:
    - Hamsun, Knut. Vitória; O sonhador, 1961, Boa Leitura editora, São Paulo – comes from Victoria, 1898 and Sværmere, 1904
    - Hamsun, Knut. A morte de Glahn, 2005, Itatiaia, Belo Horizonte – epilogue to Pan, 1894

Chronology, from Norwegian to Portuguese, originals



Chronology, from Norwegian to Portuguese, translations

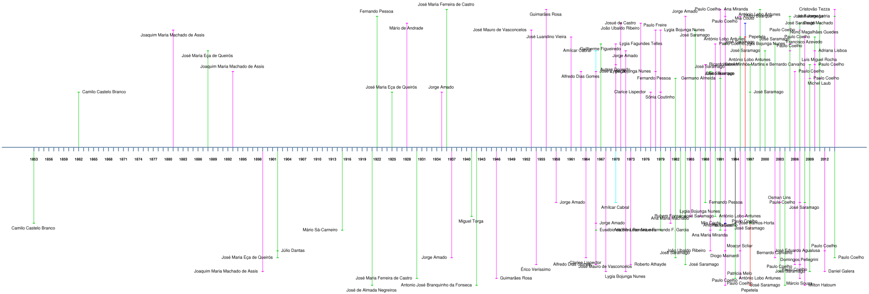


First translation in 1894

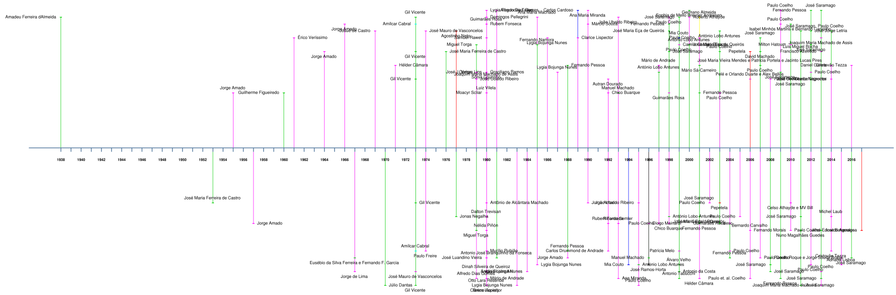
Other problems

- Literary puzzles
    - Is there a Portuguese original for Kjærlighetsbrev fra den portugisiske nonne søster Marianne til Grev de Chamilly, 1934, Fabritius & Sønners Forlag? Or was it written in French?
- Posthumous works: which dato should one use?
- Choices of poems: should each poem tell as one original?
- Different editions: a good example is Uroens bok by Fernando Pessoa
- Before modern times: which date or edition should one consider?
    - Álvaro Velho. Dagbok fra Vasco da Gamas første reise til India, 1999, Folium forlag. Should one use 1498?

Chronology, from Portuguese to Norwegian, originals



Chronology, from Portuguese to Norwegian, translations



First translation in 1938

Teaching with PANTERA

- Frequent use as illustration of complex grammatical and semantic differences between the two languages
- Use as assignment in advanced and master courses: let the students do their research projects aided by authentic data
- (Planned) use for automatic exercises, with ParaEnsinador (under development)

Linguistic research with PANTERA

Using translation data

- to improve search (for example of phenomena not marked in one language)
  - dative possessives
  - null objects
- to discover differences in semantic domains
  - fingers and toes
  - respect
- to confirm others' claims

Concluding remarks

- An interesting project that will be always enriched due to new translations and better information about the texts (in STIG), and which will provide students with a wealth of "problems" and research objects.
- But: although it is relevant to have a direct comparison of the two languages, it is important to understand what is being compared, what the translations imply and their history. There is a high number of variables at stake, and many individuals (authors, translators) involved.