

Alek Keersmaekers

KU Leuven, Quantitative Lexicology and Variational Linguistics (QLVL)
<https://www.arts.kuleuven.be/ling/qlvl/people/pages/00111778>

Education

- PhD in Linguistics (2016-2020): KU Leuven
- Master in Artificial Intelligence (2015-2016): KU Leuven (Speech and Language Technology)
 - Internship at ECOOM (Centre for Research and Development Monitoring)
- Master in Linguistics (2014-2016): KU Leuven (Comparative and Historical Linguistics)
- Master in Linguistics and Literature (2014-2015): KU Leuven (Greek-English)
- Bachelor in Linguistics and Literature (2011-2014): KU Leuven (Greek-English)

Research experience

Department of Linguistics, KU Leuven (Quantitative Lexicology and Variational Linguistics)

Postdoctoral Researcher (2022-2023)

- Project: Language and Ideas: Towards a New Computational and Corpus-Based Approach to Ancient Greek Semantics and the History of Ideas
- Funded by Research Foundation – Flanders (FWO)

Postdoctoral Researcher (2020-2021)

- Project: Tracing Semantic Change in Greek Derivational Morphology: a Computational, Distributional-Semantic Approach
- Funded by KU Leuven (Research Council)

PhD Researcher (2016-2020)

- Project: Corpus Linguistics in the Greek Papyri. Developing a Corpus to Study Variation and Change in the Post-Classical Greek Complementation System
- Funded by Research Foundation – Flanders (FWO)

Publications

- Keersmaekers, A. (2021). The GLAUx corpus: methodological issues in designing a long-term, diverse, multilayered corpus of Ancient Greek. In: *Proceedings of the 2nd International Workshop on Computational Approaches to Historical Language Change 2021*, (39-50). Online, 5-6 Aug 2021.
- Keersmaekers, A., Van Hal, T. (2021). A Corpus-Based Approach to Conceptual History of Ancient Greek. The Case of βάρβαρος. In: G. Kristiansen, K. Franco, S. De Pascale, L. Rosseel, W. Zhang (Eds.), *Cognitive Sociolinguistics Revisited*. Berlin: De Gruyter Mouton.
- Van De Velde, F., Keersmaekers, A. (2020). What are the determinants of survival curves of words? An evolutionary linguistics approach. *Evolutionary Linguistic Theory*, 2 (2), 127-137.
- Keersmaekers, A., Speelman, D. (sup.), Depauw, M. (cosup.), Van Hal, T. (cosup.) (2020). *A Computational Approach to the Greek Papyri: Developing a Corpus to Study Variation and Change in the Post-Classical Greek Complementation System*. PhD Dissertation KU Leuven.

- Van Hal, T., Keersmaekers, A. (2020). Visualizing the Ancient Greek forest through the trees: how treebanks can advance the education of classical languages. *Les Etudes Classiques*, 88. Accepted for publication.
- Keersmaekers, A. (2020). Automatic Semantic Role Labeling in Ancient Greek Using Distributional Semantic Modeling. In: *Proceedings of the LREC 2020 1st Workshop on Language Technologies for Historical and Ancient Languages (LT4HALA 2020)*, (59-67). Marseille, 12 May 2020.
- Keersmaekers, A., Stolk, J. (2019). Lease of Land. In: J. Mangerud, A. Maravela, Á.T. Mihálykó, J. Stolk (Eds.), *Papyri Osloenses V*. Berlin: W. de Gruyter. Accepted for publication.
- Keersmaekers, A., Mercelis, W., Swaelens, C., Van Hal, T. (2019). Creating, Enriching and Valorizing Treebanks of Ancient Greek. In: *Proceedings of the 18th International Workshop on Treebanks and Linguistic Theories (TLT, SyntaxFest 2019)*, (109-117). Paris, 28-29 Aug 2019.
- Keersmaekers, A. (2019). Creating a richly annotated corpus of papyrological Greek: the possibilities of Natural Language Processing approaches to a highly inflected historical language. *Digital Scholarship in the Humanities*, 1-16.
- Keersmaekers, A., Depauw, M. (2018). Bringing Together Linguistics and Social History in Automated Text Analysis of Greek Papyri. *Classics@*. Accepted for publication.
- Keersmaekers, A., Van Hal, T. (2016). Aspectual choice in Greek imperatives: a corpus-based review of existing theories. *Les Études Classiques*, 84, 19-51.

Invited lectures

- Keersmaekers, A. (2018). Possibilities for Natural Language Processing in the Greek Papyri. Presented at the PapyGreek Opening Colloquium, Helsinki, 07-08 Jun 2018.
- Keersmaekers, A. (2018). Variation and Change in the Greek Documentary Papyri: a Corpus-Linguistic Approach. Presented at the Classics Seminar, Oslo, 06 Feb 2018.

Other presentations

- Keersmaekers, A. (2022). Diminutives in the Greek papyri (and related sources): a corpus-based investigation. Presented at *New Light From the East: Linguistic Perspectives on Non-Literary Papyri and Related Sources*, Online, 02-04 Feb 2022.
- Keersmaekers, A. (2019). Sociolinguistic variation in the Greek papyri: a corpus-based, bottom-up approach. Presented at *Novel Perspectives on Communication Practices in Antiquity*, Ghent, 03-05 Oct 2019.
- Keersmaekers, A., Van Hal, T. (2018). Progress in automated tagging and parsing of Ancient Greek and the KU Leuven Pedalion environment. Presented at *Text Encoding: Latinists looking for new synergies*, Liège, 08-09 Nov 2018.
- Keersmaekers, A., Van Hal, T. (2018). Explorations in automatically parsing Ancient Greek papyrological and literary texts. Presented at the International Colloquium on Ancient Greek Linguistics, Helsinki, 30 Aug-01 Sep 2018.
- Keersmaekers, A. (2018). Aspect in papyrological Greek infinitival complements: declarative and dynamic constructions after speech verbs. Presented at the A corpus and usage-based approach to Ancient Greek: from the Archaic period until the Koiné, Riga, Latvia, 12-14 Apr 2018.

Teaching experience

- Greek Linguistics: selected topics (MA course on computational linguistics): 2021-2022
- Greek Linguistics III: synchronic approach (BA3 course on Greek corpus linguistics): 2017-2022

- Greek Linguistics III: diachronic approach (BA3 course on language change in Greek): 2021-2022
- Greek Linguistics I (BA1 course on Greek prose composition): 2017-2018
- *SunoikisisDC* classes on treebanking (Spring 2020) and computational linguistics (Fall 2020)

Thesis supervision

PhD students

- Mercelis, W. (2021-2025). Language access and content enrichment of Brepols' full-text databases: an AI and NLP-based transformation into a dynamic research, reading and learning environment. Supervisor: Toon Van Hal, Tim Denecker. Co-Supervisor: Alek Keersmaekers, Tim Van de Cruys.

MA students

- Windelinckx, M. (2021). An Automated Analysis of Comparative Structures in Greek Dependency Treebanks. Supervisor: Alek Keersmaekers. Co-Supervisor: Toon Van Hal.
- Mercelis, W. (2019). Syntactic Parsing of Ancient Greek Texts. A Comparative Study. Supervisor: Toon Van Hal. Mentor: Alek Keersmaekers.
- Swaelens, C. (2019). The Role of Semantics in Automated Sentence Processing of Greek. Supervisors: Toon Van Hal and Dirk Speelman. Mentor: Alek Keersmaekers.
- Pitts, R. J. (2018). Tense, Aspect and Modality in the Sabellic Languages. Dissertation of the Master of Arts in Linguistics. Supervisors: Toon Van Hal and Mark Depauw. Mentor: Alek Keersmaekers.

Other funding and scientific awards

- Prijs prof. dr. L.K. Engels – award for best master thesis in Germanic or general linguistics
- Scholarship of the Roger Dillemans Fund, to study the Advanced Master in Artificial Intelligence

Online tools and datasets

- Keersmaekers, A., Van Hal, T. (2021). GLAUx: a large, automatically parsed corpus of Ancient Greek. <https://perseids-publications.github.io/glaux-trees/>.
- Van Hal, T., Keersmaekers, A. (2020). Myria: a treebank-based vocabulary tool. <http://www.myria.org/>.
- Keersmaekers, A. (2020). Pedalion Role Labeler: A Semantic Role Labeler for Ancient Greek. 1.0. <https://github.com/alekkeersmaekers/PRL>.
- Keersmaekers, A. (2020). DendroSearch: A query tool for Ancient Greek Treebanks. <https://github.com/alekkeersmaekers/dendrosearch>.
- Van Hal, T., Keersmaekers, A., Cuijpers, M. (contr.), Gijbels, S. (contr.), Joosten, Y. (contr.), Lenaerts, Y. (contr.), Mercelis, W. (contr.), Roose, J. (contr.), Swaelens, C. (contr.), Uffing, E. (contr.), Verreth, L. (contr.) (2019). Pedalion Treebanks. 1.0. <https://github.com/perseids-publications/pedalion-trees>.
- Keersmaekers, A. (2018). Duke-NLP: Automatically annotated papyrus texts, as used in the Trismegistos Words project. 2.0. <https://github.com/alekkeersmaekers/duke-nlp>.

Skills

- Programming: advanced knowledge of R and Java, some knowledge of Python
- Supervised machine learning
- Clustering
- Regression analysis
- Dimension reduction
- Natural language processing
- Basic knowledge of text editing (Summer School in Papyrology)
- Ancient languages: Ancient Greek, Latin, Sanskrit; Modern languages: Dutch, English, French, German, Modern Greek, Spanish

Other

- Member of the ABAP delegation of the Council of the Faculty of Arts/Subfaculty of Arts Leuven-Kortrijk, KU Leuven (2017-)
- Web manager of the research group QLVL (2018-)