Defense of PhD Dissertation
Estonian static spatial relations and how to teach them to Chinese native speakers

by Agu Bleive

Questions posed by Laura A. Janda,

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Outline

- Topic of dissertation and overall strengths of the dissertation
- Discussion points
  - Items raised in evaluation submitted July 2026
  - Other specific questions about the dissertation
  - Concluding questions
- Assessment of merits and critical points
- Proposal concerning acceptance of dissertation

Topic of dissertation

- Expression of static spatial relations such as **ON (SUPPORT) in Estonian** and acquisition by **Chinese learners of Estonian**
  - Estonian distinguishes **support with attachment** (*küljes*, *otsas*) from **support without attachment** (case suffixes, other adpositions), but **Chinese does not**
- **Comparison** with **Chinese learners of Polish**
  - Polish ≈ Chinese no distinction of attachment
- **7 experiments**: Chinese learners of Estonian and Chinese learners of Polish, **benchmarked** against Estonian native speakers, Chinese native speakers, Polish native speakers
- **Research-based pedagogical methods**

Overall strengths of the dissertation

- **Repurposed stimuli** from landmark Boweman & Choi (2001) study >> facilitate comparisons
- **Contextualized** with reference to Estonian, Chinese, and Polish **linguistics, psycholinguistic experimental methods, language pedagogy**
- **Novel comparison** of acquisition of spatial expressions **Estonian vs. Polish**
- **Semantics of Estonian adpositions**
- Honest **confrontation of unexpected findings**

Overview of discussion points

- Items raised in evaluation submitted July 2026
- Other specific questions about the dissertation
- Concluding questions about this line of research

Items raised in evaluation submitted July 2026

Theoretical framework

The theory applied is **not explicitly stated** in the text. It appears to be cognitive linguistics/cognitive grammar, but neither of these collocations appear in the text.

Please make an explicit statement of the **theoretical framework** applied in this thesis, **why** it was chosen, and **what** it achieved.

Please also tell us **what contributions this thesis makes to the chosen theoretical framework**.

Meaning

What is your understanding of the role of **meaning in grammar** and what have we learned about this topic in this thesis?

How does **polysemy** function in the meanings of Estonian adpositions? Is this different or similar (perhaps at various levels) from what we see in Chinese and Polish equivalent expressions?

What role does **metaphor** play in the meanings of spatial expressions?

Variation

What have we learned in this thesis about **variation in the choice of spatial expressions** by native speakers and by learners, and what **differences** do we see between these two populations?

What is your understanding of the **role of variation in language**?

Frequency

Aside from the designation of “most frequently used spatial markers” in Estonian, Chinese, and Polish (cf. Figures 5-9), frequency receives **little mention**.

What do you see as the **role of frequency in language** and how might that factor **have impacted your findings**? What could have been done to investigate frequency in this study?

FAIR compliance

What has been done to **ensure compliance with FAIR** principles of research (findability, accessibility, interoperability, and reusability)?

Further potential

How could the methods developed in this dissertation be applied the cross-linguistic investigation of **other phenomena**, such as expressions of motion and time?

Regression analysis 2 in “How do Chinese L1 learners express Estonian static spatial relations?”

Please unpack this formula and explain the choice of factors and the findings:

- mlog.glmer2 ← glmer(Hiinlaste.vastustes.ja.eesti.vastes.sama.kohasuhte.liik ~ Lihtsustatud.kohasuhte.liik.eesti.keeles + Käändelõpp.0.või.kaassõna.1.emakeelsete.vastustes + Käändelõpp.0.või.kaassõna.1.hiinlaste.vastustes + (1|Vastaja.ID) + (1|Pildi.ID), data = andmed, family = "binomial", control = glmerControl(optimizer="bobyqa"))
- Variables in English: the same type of spatial relation used both by the CLE and ENS ~ the type of spatial relation in Estonian + the usage of case suffixes or adpositions in the answers of the ENS + the usage of case suffixes or adpositions in the answers of the CLE + respondent’s ID + picture’s ID

Were **model diagnostics** run? What results and why don’t we see a **table of coefficients**? Also, why do we see **raw data** in Table 3 rather than **model predictions**?

Relevant model diagnostics

- Check for collinearity
- Check for overdispersion
- Comparison of model to a model with no fixed effects to check the importance of random effects
- C.score
- Statistical comparison of classification accuracy with baseline

Other specific questions about the dissertation

Figure 1, p. 21

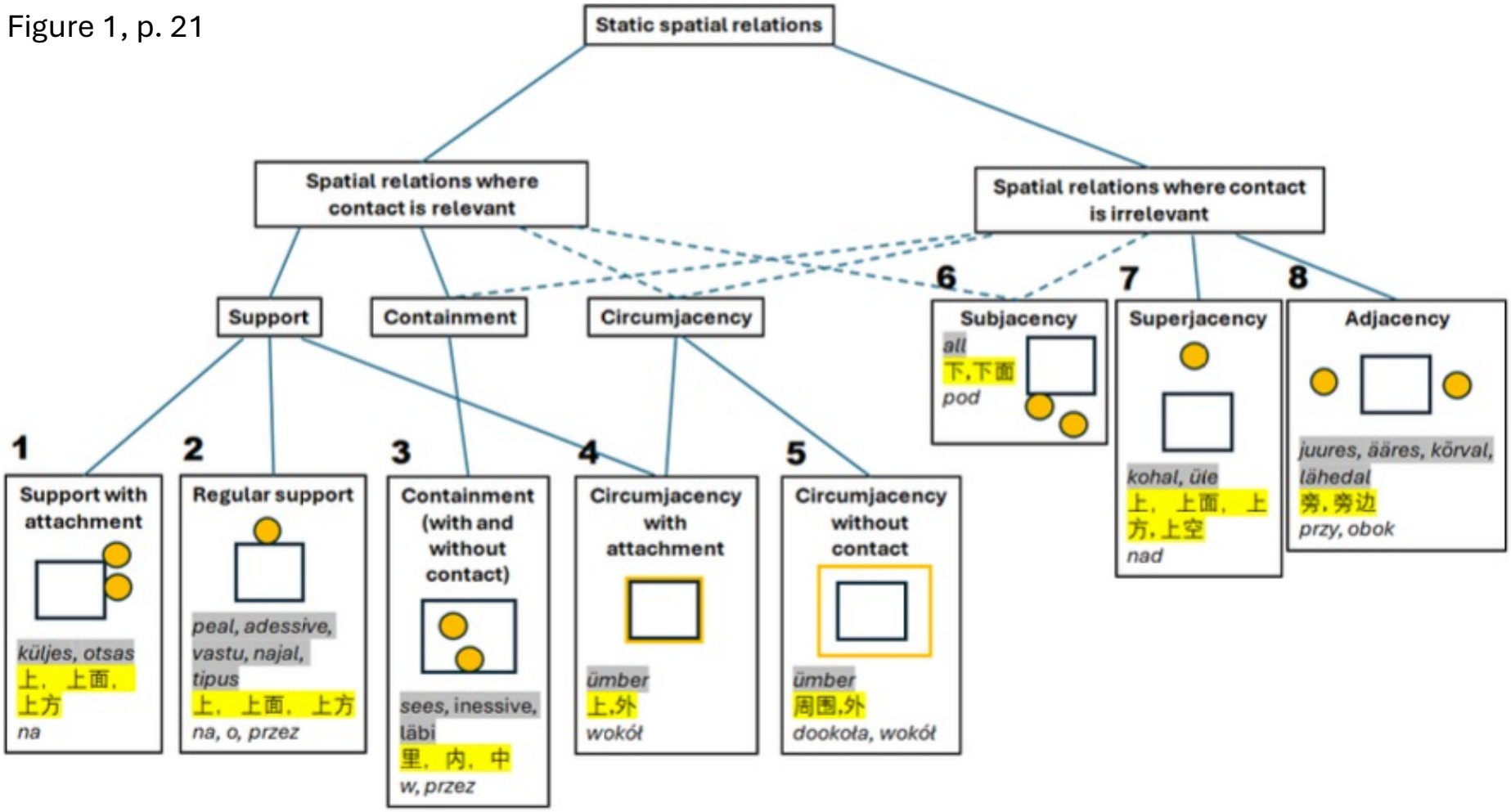


Figure 1. Classification of static spatial relations. Numbers 1-8 represent types of spatial relations. Spatial markers of Estonian are marked gray , Chinese yellow, Polish transparent. Solid line represents complete correspondence between two features and dashed line represents partial connection.

Küljes and *otsas* are group 1 in this diagram, but…

- “If the *locatum* is under the *relatum* it needs to be attached to it (expressed by postpositions *küljes* or *otsas* in Estonian).”
- Wouldn’t that belong under group 6?
- And what is the role of attachment in this diagram?

What are “spatial nouns”?

- Please give an explanation of the role of spatial nouns in Chinese

- See also fn. 7 p. 25: “Spatial nouns have similar syntactic position to spatial nouns, therefore they need to be distinguished by glosses.” ?

Figure 3, p. 27

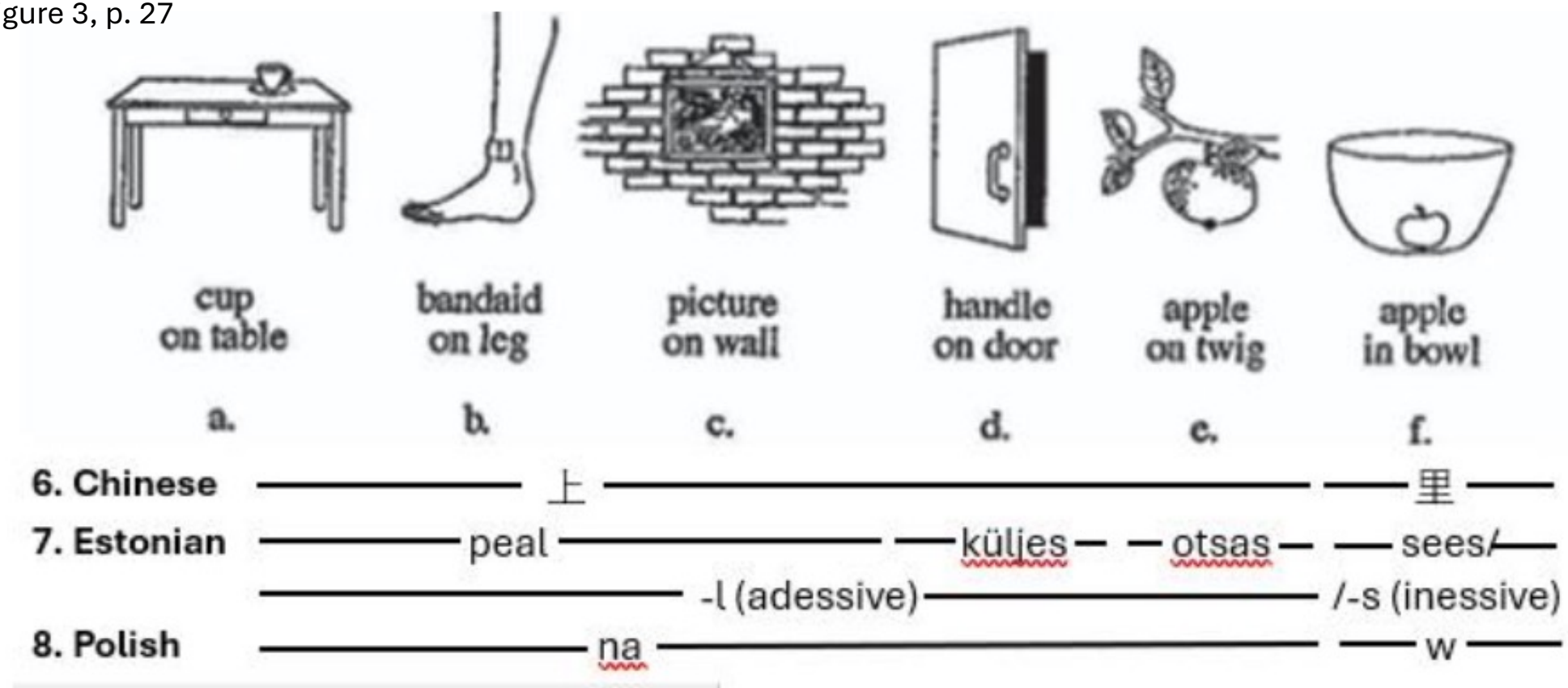


Figure 3. IN-ON scale with Estonian, Chinese and Polish spatial markers (based on A1 and A3 and on the IN-ON scale of Bowerman and Choi (2001: 485)).

About Figure 3

- In terms of case usage, Estonian also looks like Chinese, no?

- p. 28: “situations *d* and *e* (referred to in this dissertation as *support relations with attachment*” Why are b and c not support relations with attachment?

More about Figure 3

- Is there no overlap between *küljes* and *otsas*? (cf. caption to Figure 5 on p. 33 about "most used" marker; middle paragraph on p. 41 suggests overlap; similar diagrams in Figures 14 and 15 on p. 42); pp. 58 and 61 of "Spatial support…" article make it sound like there is variation for native speakers



Figure 14. Schematic diagram for the Estonian postposition *otsas*: attachment to an extremity (every direction) / pierced by an extremity (every direction) / contact without attachment at the upper extremity / hanging down from an extremity.

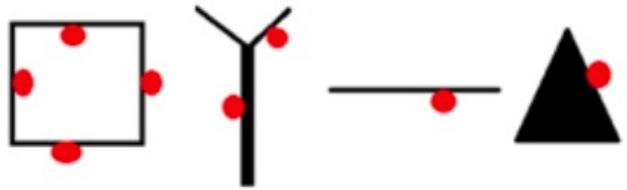


Figure 15. Schematic diagram for the Estonian postposition *küljes*: attachment to any point/side, no piercing, no contact without attachment / hanging down from any point.

p. 30: Hypothesis that Chinese learners underuse Estonian case suffixes and overuse adpositions

- Hypothesis is not borne out, supposedly due to hypercorrectness – is there a way to corroborate this explanation?

- Could it have something to do with the instructions, which suggest case suffixes first and postpositions after, as we see in fn. 3 on p. 10 of the article? “‘Please add a case suffix or a word expressing location after the word indicating the reference object”

- Is there a similar pattern also for Chinese learners of Polish?

p. 38

- “After reviewing the textbooks, I ascertained that the postpositions *küljes* and *otsas* could not be mastered during the first two years as they are not part of the material taught in these textbooks.”

- Is this because *küljes* and *otsas* are of low frequency or is there another explanation? On p. 19 of “How do…” article we read “such frequently used adpositions as küljes ‘attached to’, otsas ‘attached to the tip/top, at the tip/top’” Are there any circumlocutions possible in Estonian that learners might be able to substitute?

p. 46

- I found this sentence hare to make sense of – can you help me?

- “This demonstrates that the overlap with ENS descriptions is much larger for the CLEexp- group than for the CLEexp+ group, suggesting that the CLE exp+ group needs to rely more heavily on the explicitly taught methods of expressing these relations, in a similar manner as with the postpositions *küljes* and *otsas*.”

p. 47 Is this a confounding factor?

- “This difference between CLEexp+ and CLEexp- groups can probably be explained by the fact that the CLEexp- had been studying Estonian for a much longer period (3–5 years, see A2 for details) compared to the CLEexp+ group (only 1.5 years, see A3 for details).”

p. 15 of article “How do…”

Table 3. Summary of native-like and non-native-like usage of postpositions and case suffixes by the CLE

Native-like case usage	Native-like adposition usage	Non-native-like case usage	Non-native-like adposition usage
250/545	62/545	134/545	99/545
45.9%	11.4%	24.6%	18.1%

“In addition, there were 99 cases out of 545 answers (18.1%) where adpositions were used and the type of spatial relation used by the CLE coincided with the answers of the ENS.”
I think there is a negation missing here and the table isn’t very reader-friendly.

p. 72 of “Spatial support…”

- Conclusion starts with: “All in all, the results seem to indicate that acquiring conceptually new ways of expressing spatial relations is not more difficult than acquiring a similar kind of system.”

Is this true only if there is explicit instruction? What if there is no explicit instruction?

Concluding questions

Research-based pedagogy

In an ideal world, how would you go about revising curricula for language pedagogy?

What do you propose for learning materials and classroom practice?

Imagine a perfect world with unlimited resources…

If you had unlimited resources to continue this line of research, what would you do?

What has changed?

How have your ideas changed over the course of your research?

What would you have done differently?

Circling back to the big picture…

What does this research tell us about language in general (not just Estonian, Chinese and Polish)?

Where do we go from here?

- What further projects can be proposed based on this research?

Assessment of merits and critical points

Assessment of merits

- Excellent choice of topic, clearly stated research questions
- Solid and deep control of Estonian, Chinese, and Polish linguistics, linguistic typology, psycholoinguistics, language pedagogy, statistical methods
- Novel cross-linguistic study
- Implementation of innovative research-based pedagogical methods
- Results presented in a clear and even-handed way, and explicitly connected to previous research

Critical points

- There could have been an explicit statement and discussion of theoretical framework
- Tables of coefficients and model diagnostics should accompany presentation of regression analyses and factors should be evaluated in terms of model predictions rather than raw data
- Data, statistical code, and stimuli should be archived in a way that conforms to the FAIR principles of research (findability, accessibility, interoperability, and reusability). Agu Bleive might consider a professionally curated repository such as TROLLing (https://site.uit.no/trolling/).

Proposal for acceptance of dissertation

I hereby propose that the PhD dissertation *Estonian static spatial relations and how to teach them to Chinese native speakers*, presented and defended by Agu Bleive here today, November 27, 2026, be **accepted** by the University of Tartu.

CONGRATULATIONS

to Agu Bleive, his mentors, family, and friends!