

# Copula Construction in the Kyrgyz language

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# Outline

- Copula constructions in the English and Kyrgyz languages
- Types of copula
- The difference between copula and auxiliary verbs
- Challenges
- Conclusion
- References

# Copula

A copula is a linguistic element which links a subject:

to a noun phrase

to an adjective

other constituent which expresses the predicate.

Ex: I **am** a student.

# Copula

In the Kyrgyz language, the copula links the subject with a nominal predicate, structured around particles such as "эмес" (not), "эле" (just), and "экен" (is/was).

For example: Мен студент**МИН**.

# Copula

We **are** friends-Биз дос**пуз**.

I **am** a doctor- Мен доктур**мун**.

I **am** an astronaut- Мен космонавт**мын**.

# Types of copula

Copula “be”

You are a student.

Zero copula

Мен студент**МИН**.

Semi copulas (change of state): **become, grow, turn**  
She became a doctor.

Semi copulas (an expression of continuative aspect):  
**remain, stay, keep**  
The castle remains intact.

Copula “**бол**”

Ал мугалим болду.

Pseudo-copulas

**sound, look, taste**

It sounds nice.

**“эмес”, “эле”, “экен”**

Ал мугалим эмес.

Ал мугалим эле.

Ал мугалим экен.

# Zero copula in the Kyrgyz language

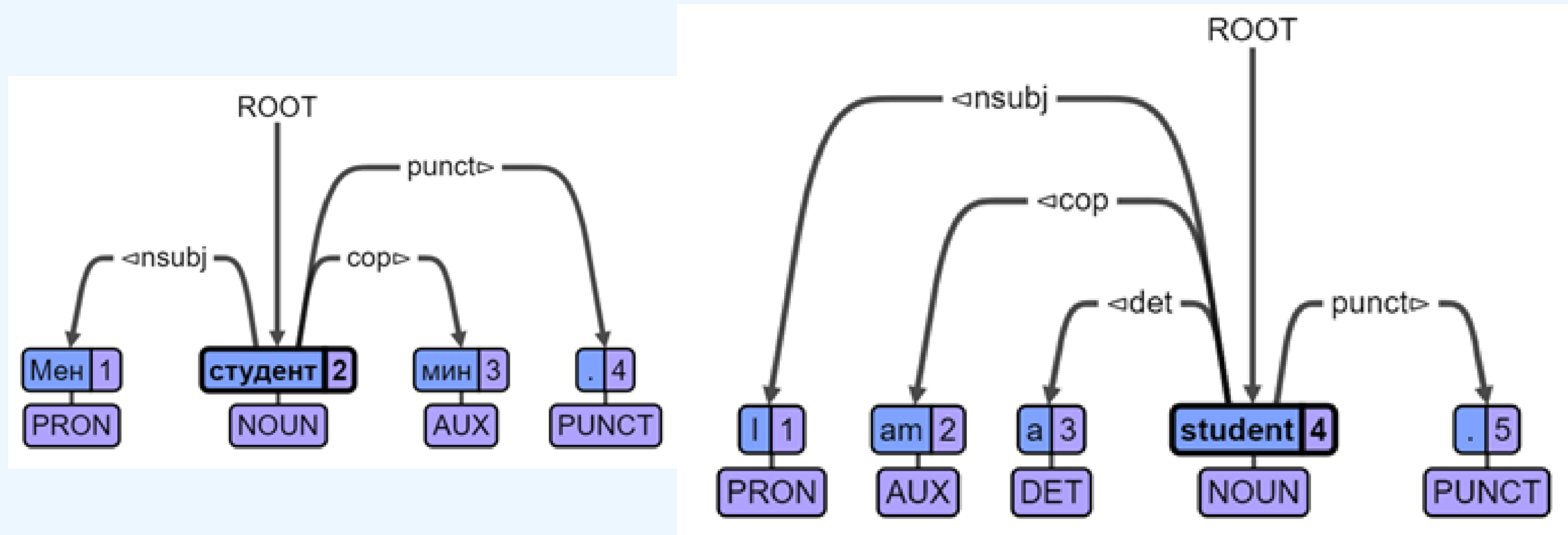


Figure 1. Annotation of the sentence: I am a student.

## “Эмес” – “emes” as a copula

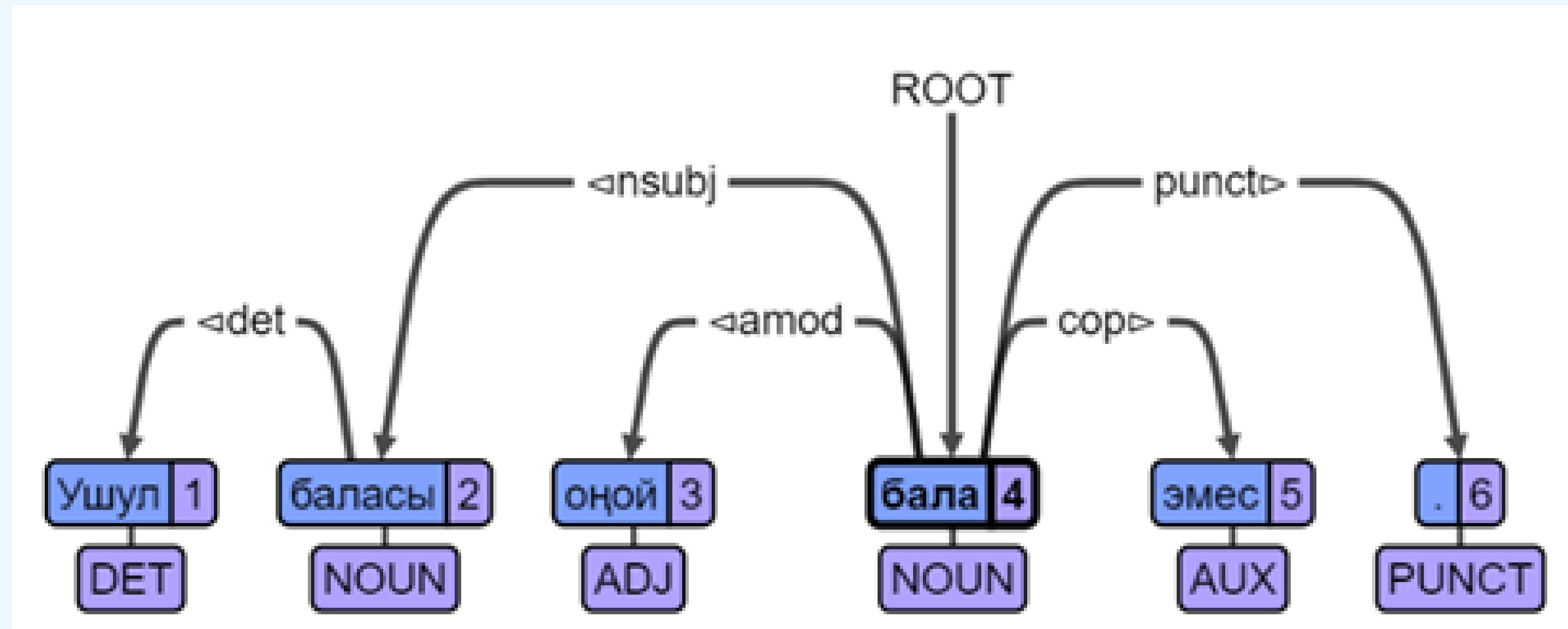


Figure 2. “Emes” is annotated as a copula.



# “Эмес” – “emes” as a copula

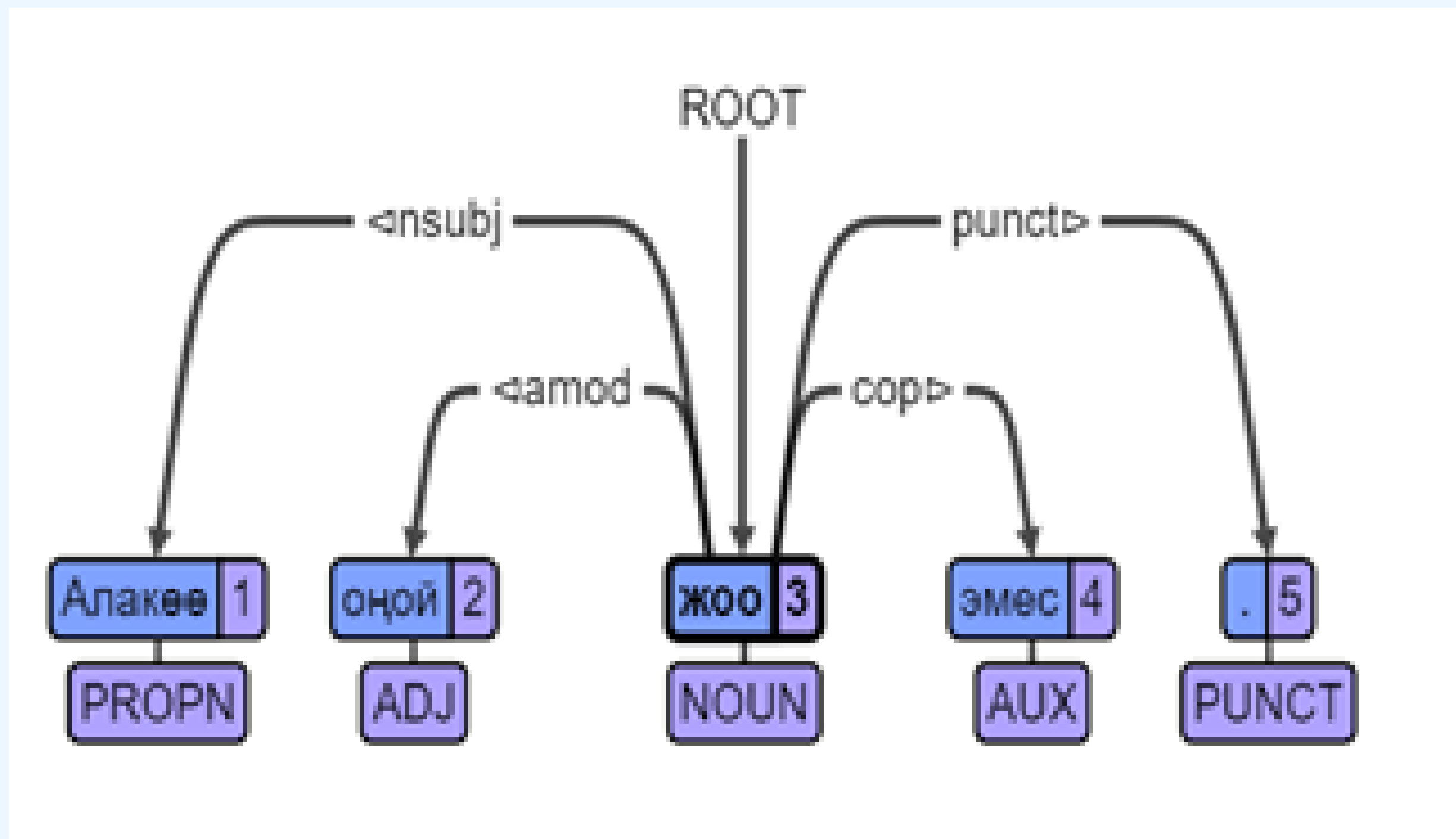


Figure 3. “Emes” is annotated as a copula.

# “Эле” – “ele” as a copula

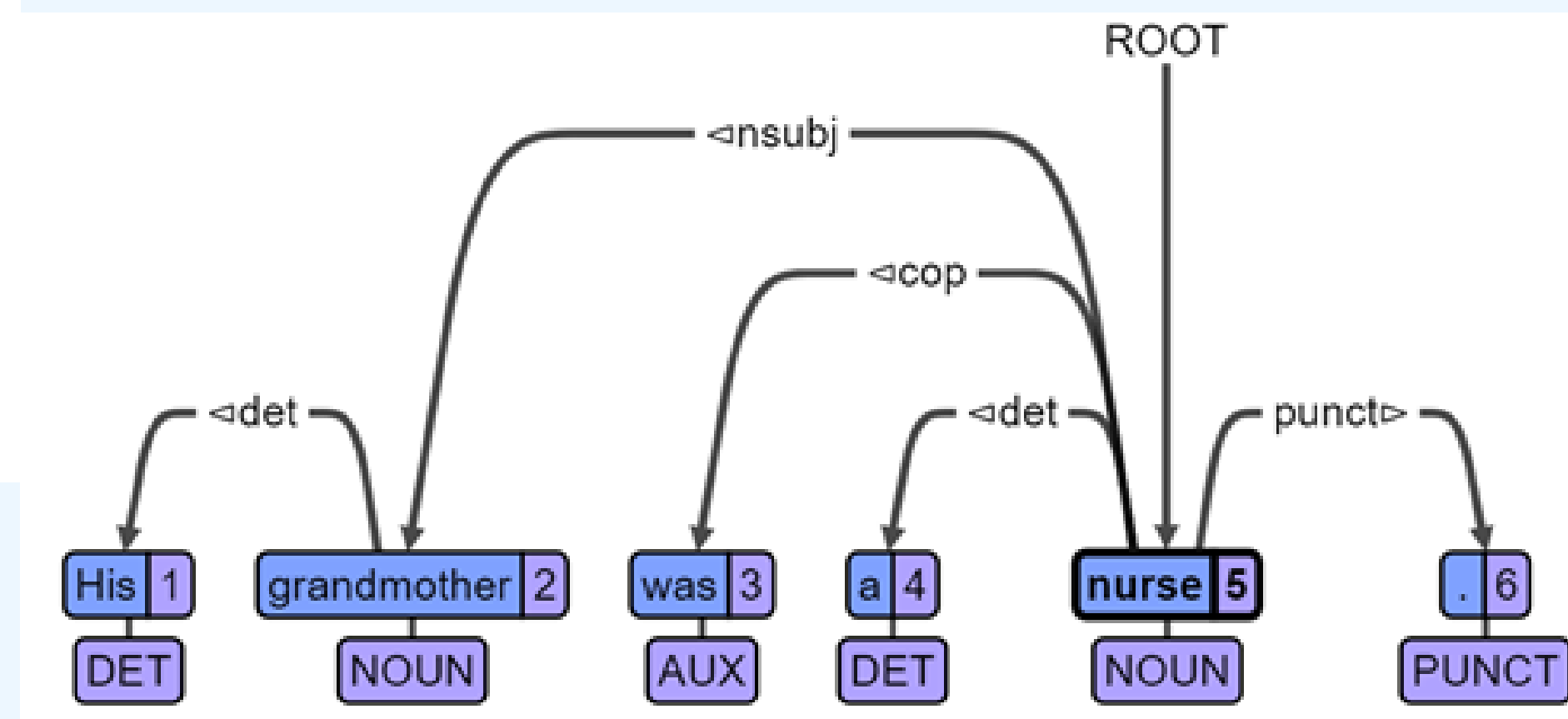
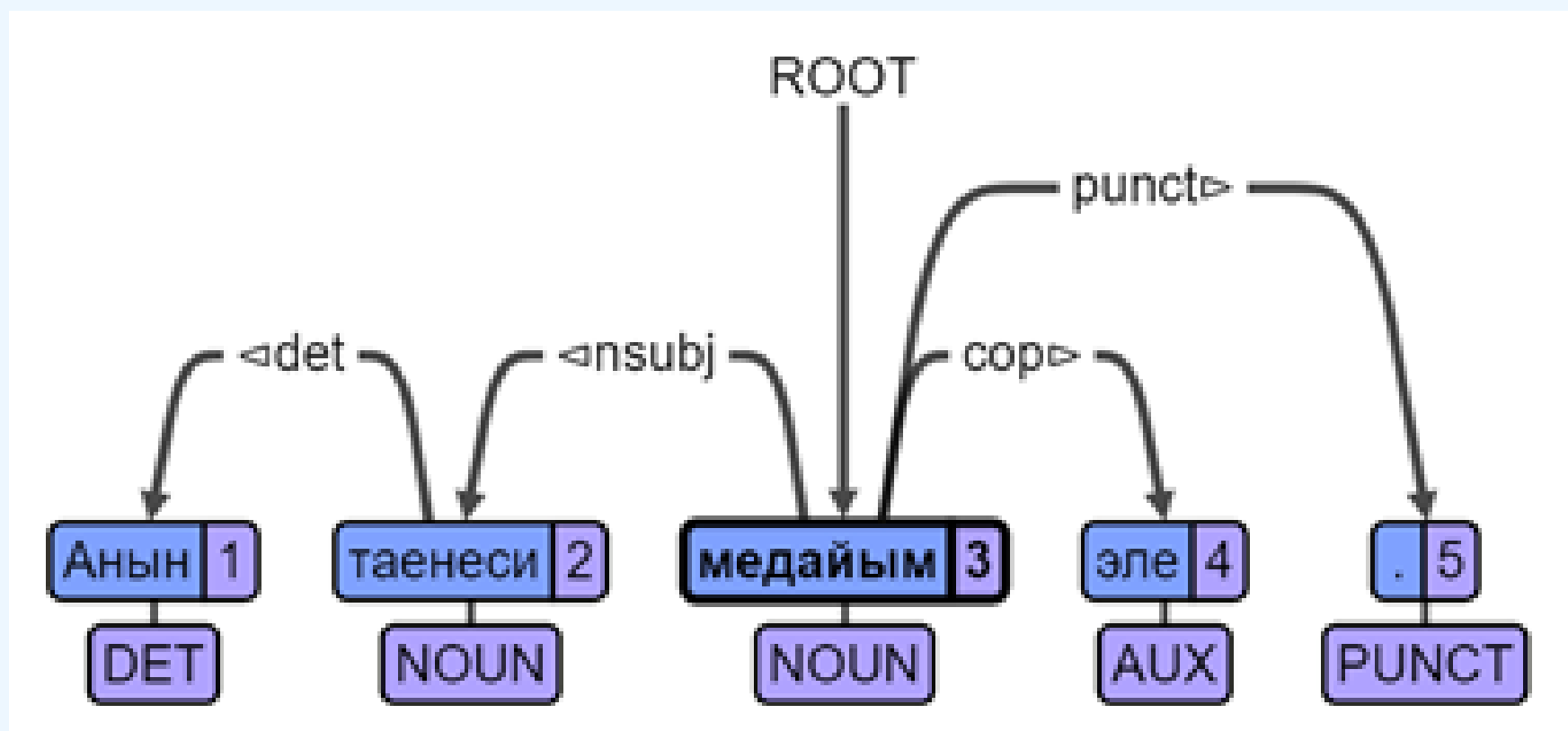


Figure 4. “Ele” is annotated as a copula.

”Эле” – “ele” as a copula

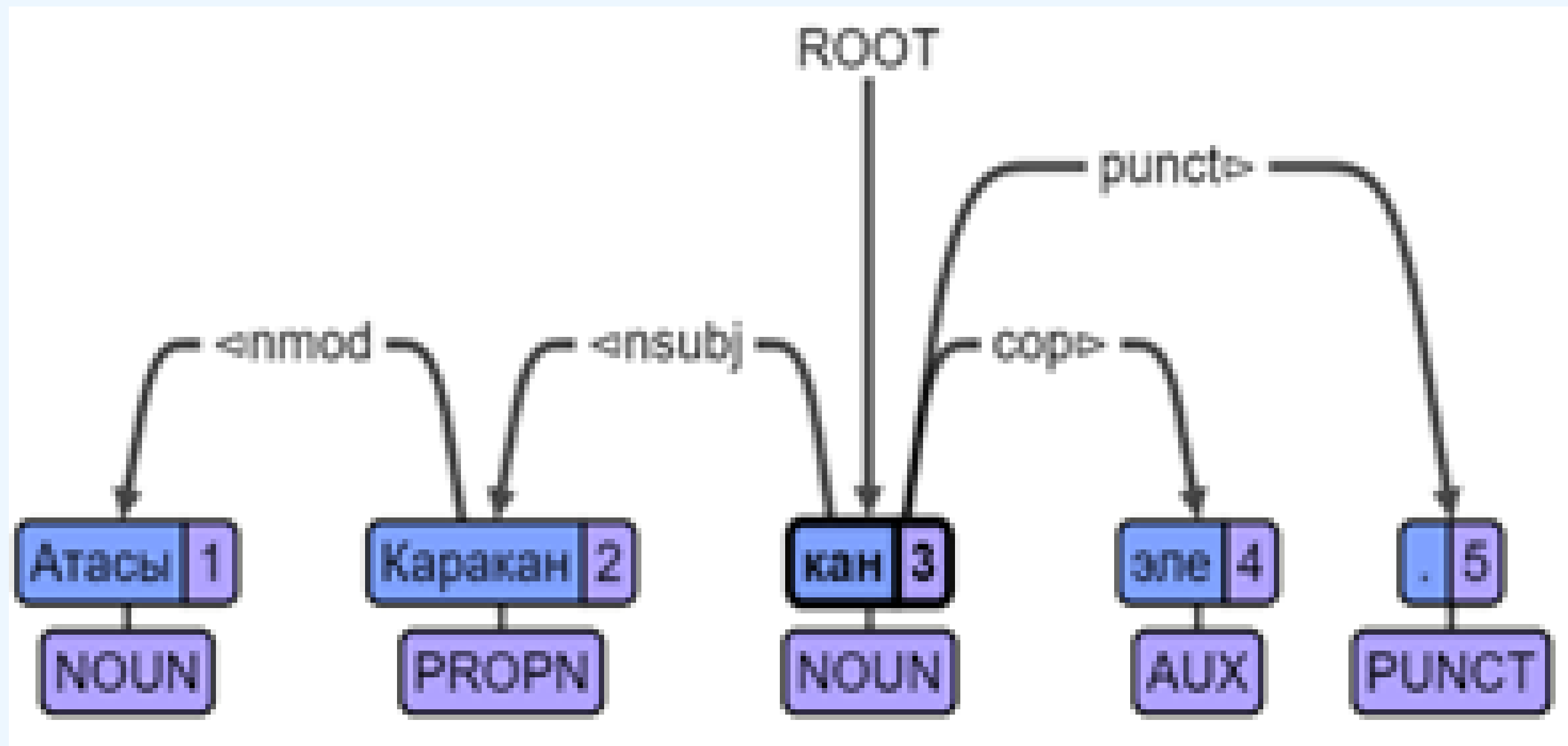


Figure 5. “Ele” is annotated as a copula.

# “Экен” – “eken” as a copula

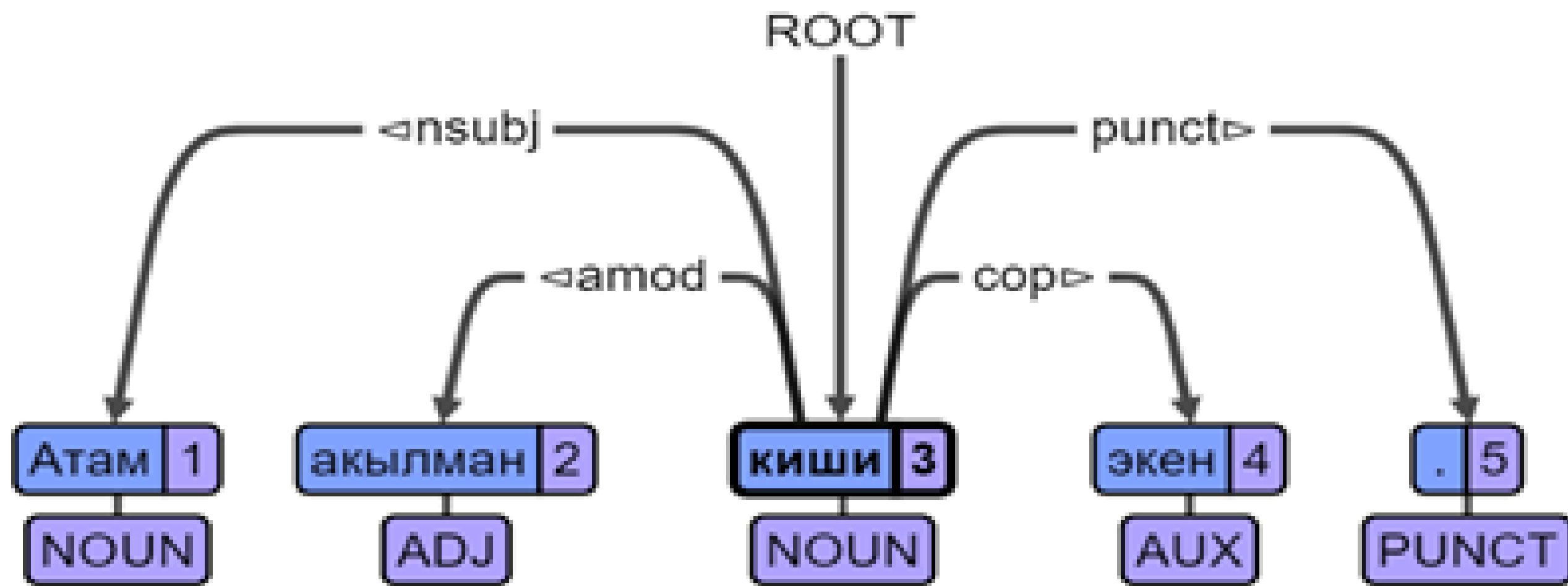


Figure 6. “Eken” is annotated as a copula.

# “Эмес”, “эле”, “экен” as auxiliary verbs

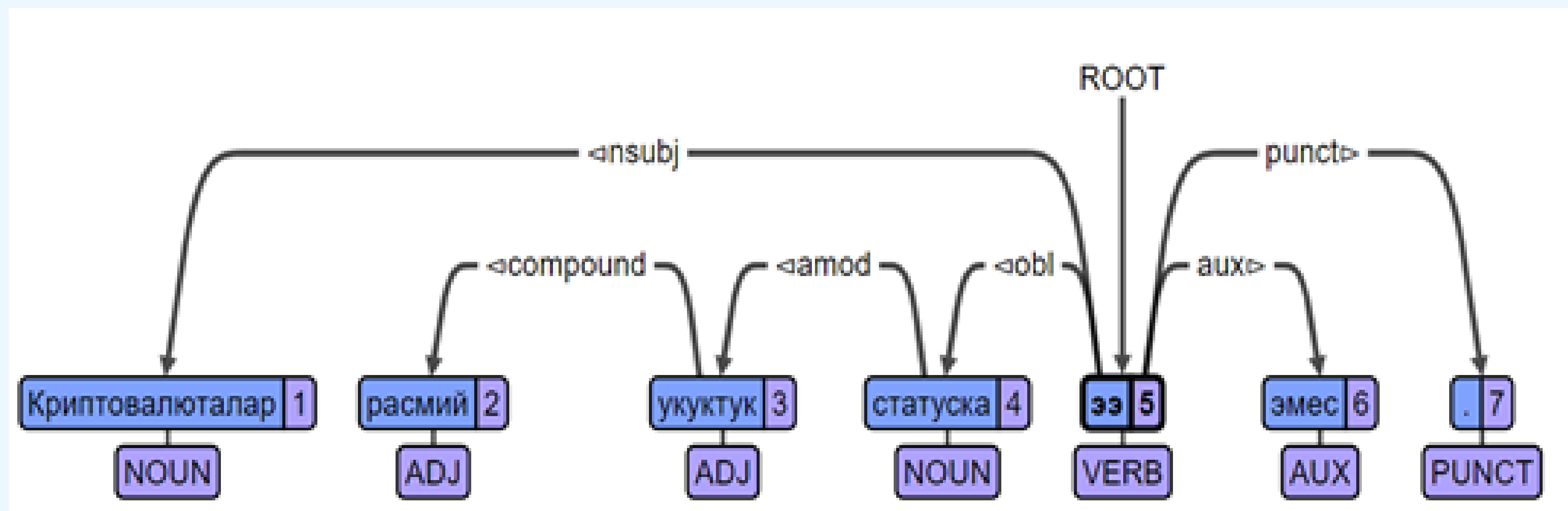


Figure 7. “Emes” is annotated as an auxiliary verb.

# “Эмес”, “эле”, “экен” as an auxiliary verbs

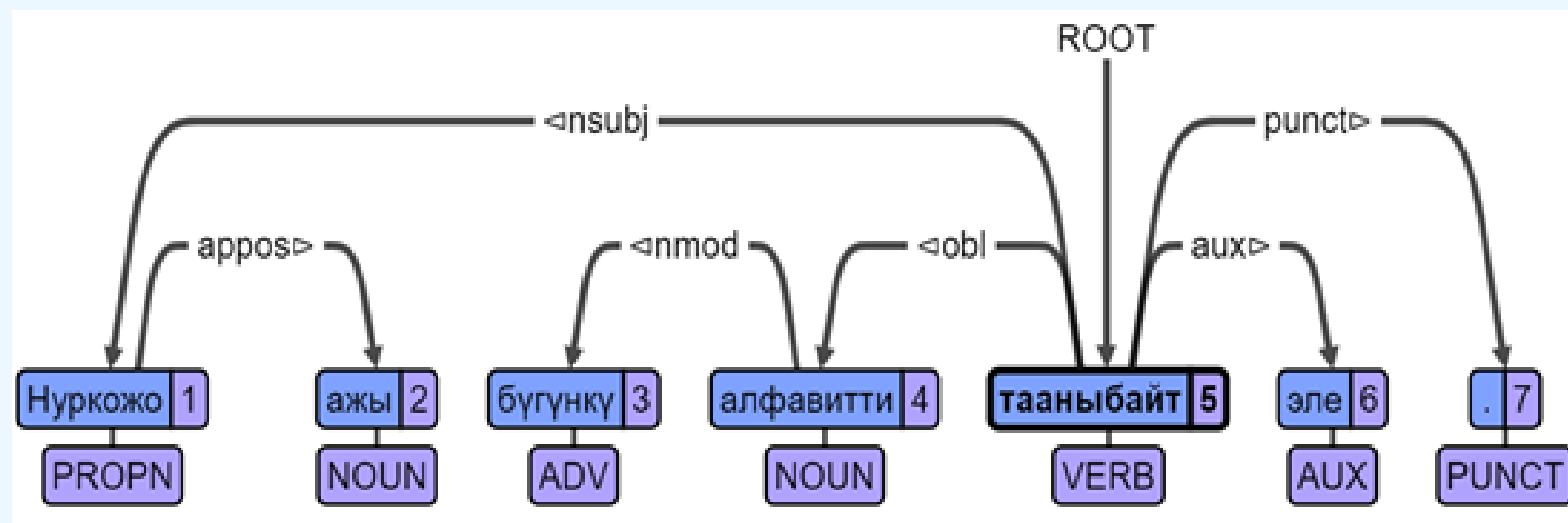


Figure 8. “Ele” is annotated as an auxiliary verb.

# Challenges

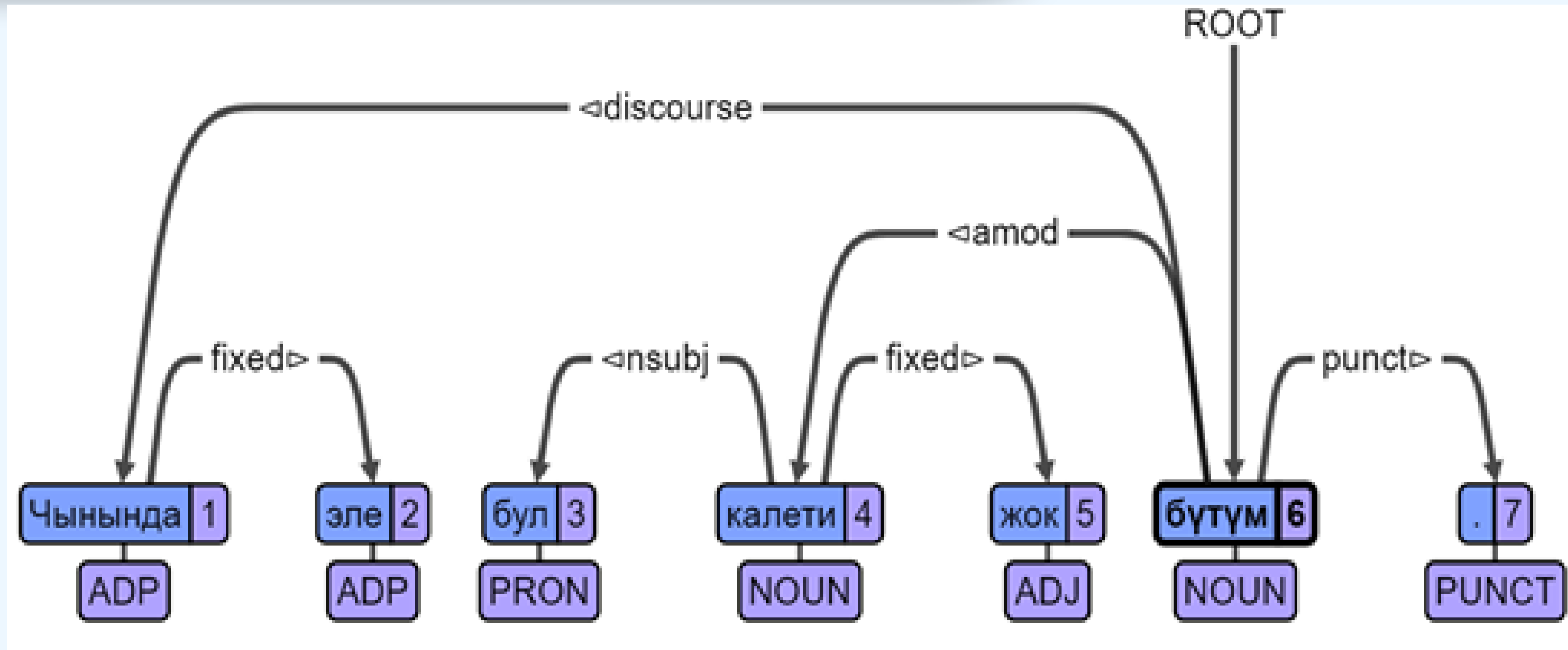


Figure 9. “Ele” is not usually annotated as an auxiliary verb, according to the the context it can functions differently.

# Challenges

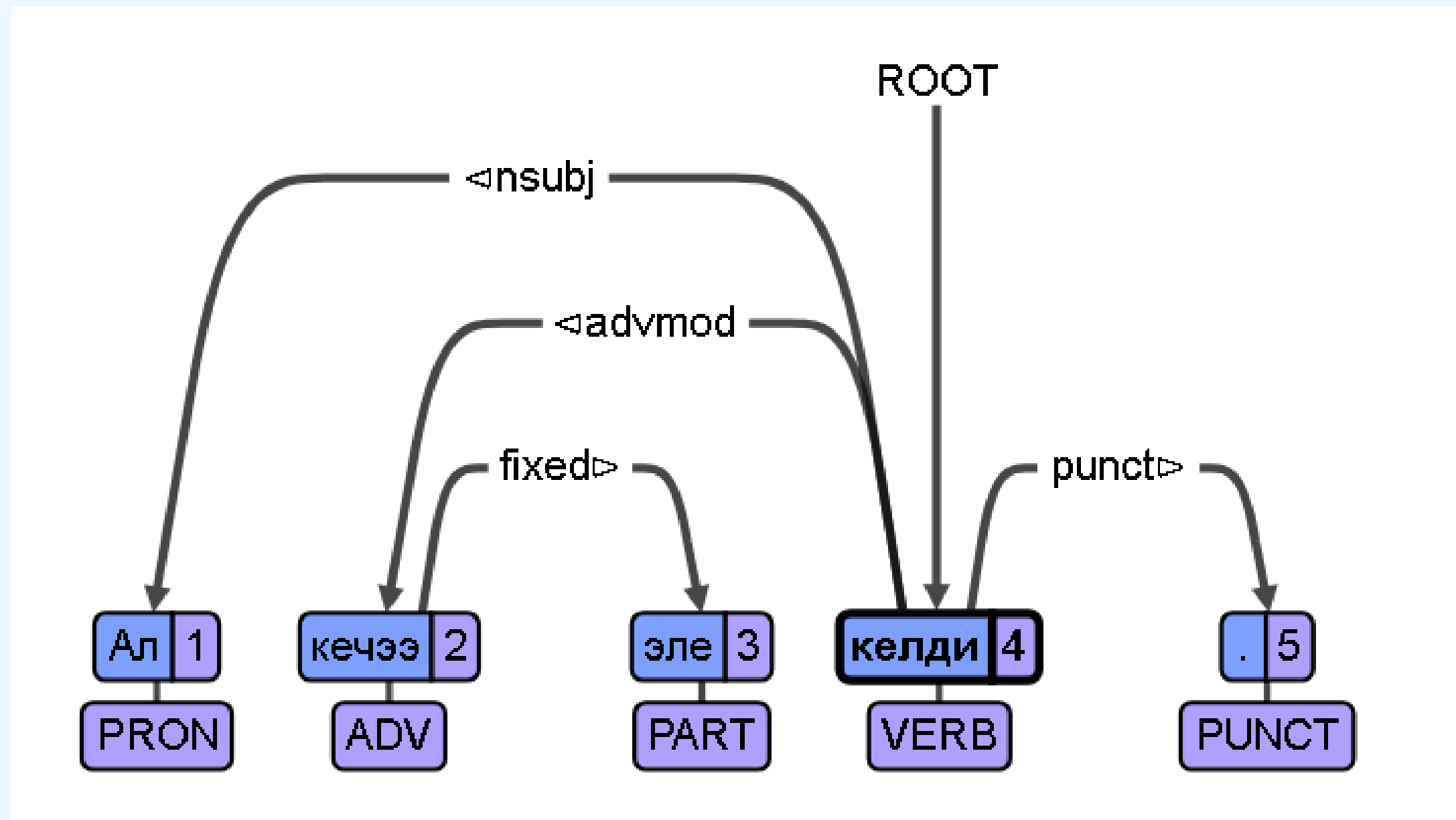


Figure 10. “Ele” is not usually annotated as an auxiliary verb, according to the the context it can functions differently.



# Challenges

- Ал кечээ **эле** келди.
- Апал 18ге **эле** чыкты.
- Эжем шаардан алыс **эмес** жерде жашайт.

# Challenges

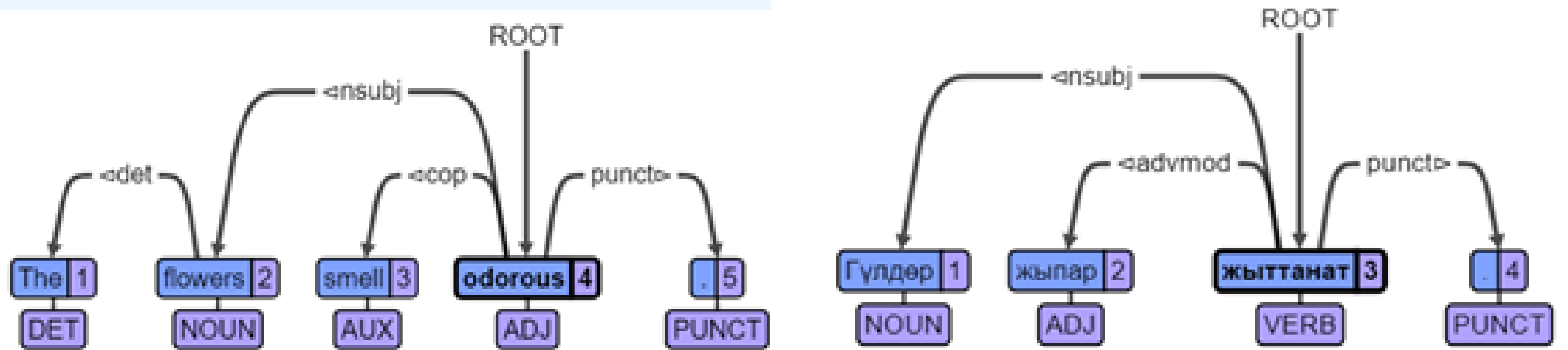


Figure 11. “Ele” is not usually annotated as an auxiliary verb, according to the the context it can functions differently.

# Conclusion

- In conclusion, the insights derived from this study serve as a robust foundation for future linguistic research and technological advancements in NLP for the Kyrgyz language. The findings contribute to ongoing efforts to enhance and fine-tune AI language models, paving the way for more efficient and effective Kyrgyz language processing tools, and advancing the quality of Kyrgyz-English translations in the future.

# Recommendation

- Kasieva , A., & Washington, J. (2024). Strategies for the Annotation of Pronominalised Locatives in Turkic Universal Dependency Treebanks. Joint Workshop on Multiword Expressions and Universal Dependencies, pp. 2-13.
- Kasieva , A., Knappen, J., Fischer, S., & Teich, E. (2020). A new Kyrgyz corpus: sampling, compilation, annotation. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft.
- Kasieva, A., Dzhumalieva, G., Thompson, A., Jumashev, M., & Washington, J. (2023). ISSUES OF KYRGYZ SYNTACTIC ANNOTATION WITHIN THE UNIVERSAL DEPENDENCIES FRAMEWORK. Turklang, pp. 193-195.
- Keine, S., Wagner, M., & Coon, J. (2019). Hierarchy effects in copula constructions. Canadian journal of Linguistics, 617-648.



Thank  
You

