

Paraphrase Detection for Short Answer Scoring

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Input Corpus CREG (*Ott et al. 2012*)

Text

... **Sent_{*j*}**: The Hessian government wants to prevent this reform, because “when it comes to apple wine all Hessians agree.”

Sent_{*j+1*}: It’s easier for other apple wine nations like France or Spain.

Sent_{*j+2*}: There, the beverage is called “Cidre” or “Sidra” and may keep that name, because the term “wine” is not part of the name. ...

Question

Do other European countries experience similar problems as Hesse. Why?

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Target answer

No, in other apple wine nations like France or Spain the beverage is called “Cidre” or “Sidra” and may keep that name, because the term “wine” is not part of the name.

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No, in other apple wine nations like France or Spain the beverage is called “Cidre” or “Sidra” and may keep that name, because the term “wine” is not part of the name.

Learner answer (correct)

No. other countries, like France or Spain, have other name for apple drinking, like “Cidre”.

Extracted Paraphrase Fragments

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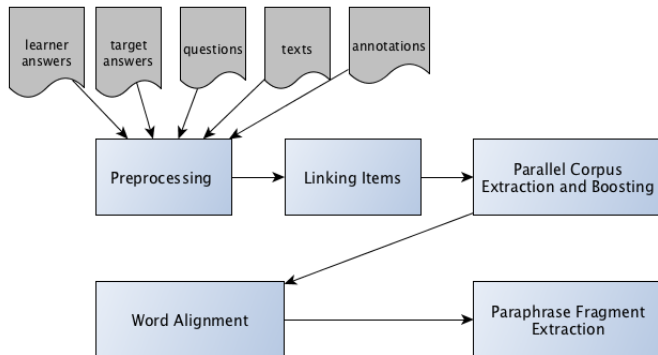
Target answer

No, **in other apple wine nations like France or Spain the beverage is called “Cidre”** or “Sidra” and may keep that name, because the term “wine, is not part of the name.

Learner answer (correct)

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Overall Workflow



Main Contributions

- Using paraphrases for grading learner answers
- Applying (almost) unsupervised method for paraphrase detection to German
- Testing two extraction and two decoding methods
- Intrinsic and extrinsic evaluation of detected paraphrases
- Improvement on short answer scoring achieved by combination with existing models

Thank you for your attention!

Any questions?

Then come to our poster.

Paraphrase Extraction Workflow

