

Adnominal possession inference in **AGGREGATION**


Master's thesis proposal

Allison Dods, UW

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Presentation plan

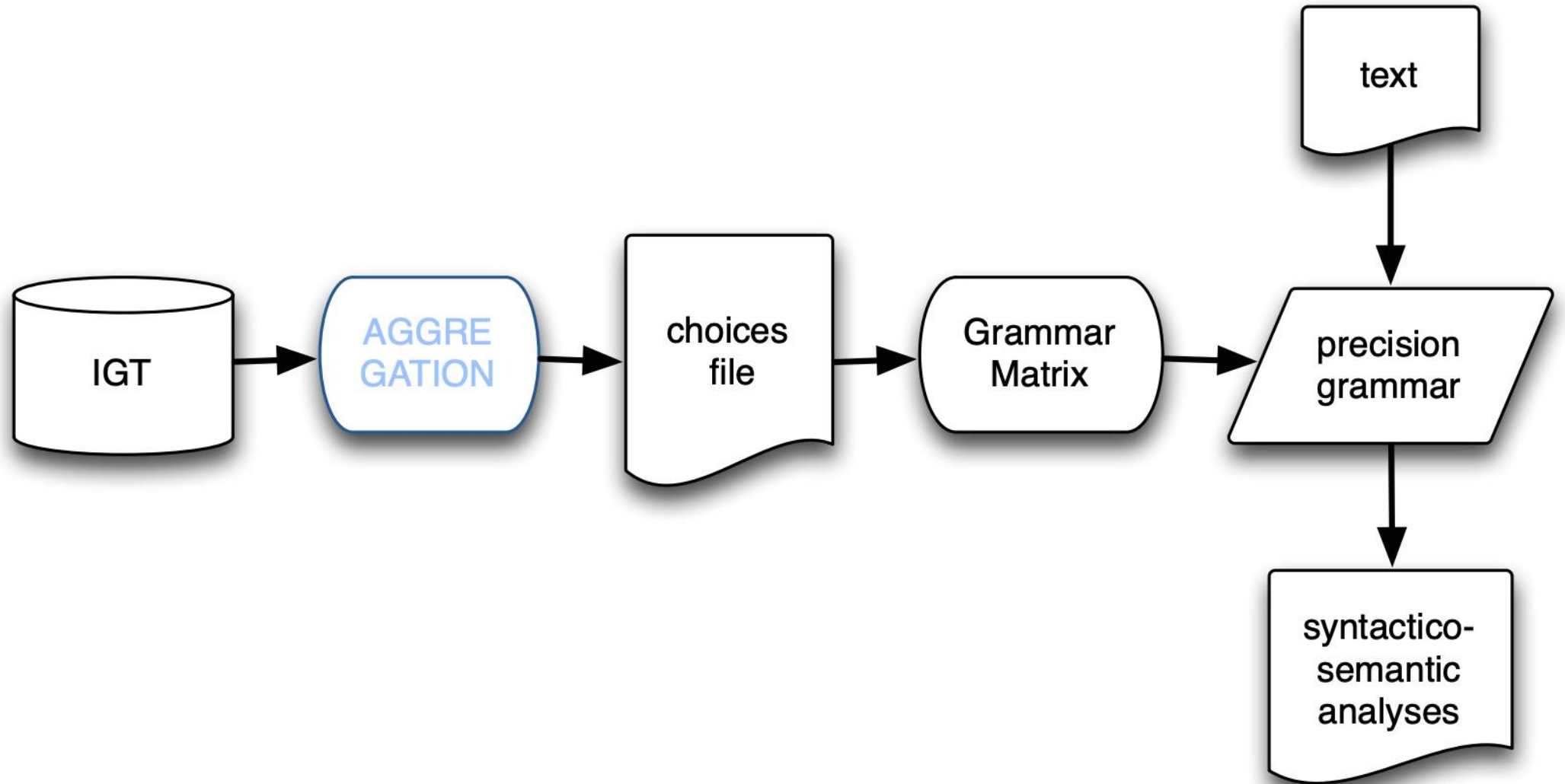
- AGGREGATION overview
 - Description of my project
 - Discussion
- 
- The bottom of the slide features a decorative graphic consisting of several overlapping, curved, light gray lines that sweep across the width of the page, creating a sense of motion and depth.

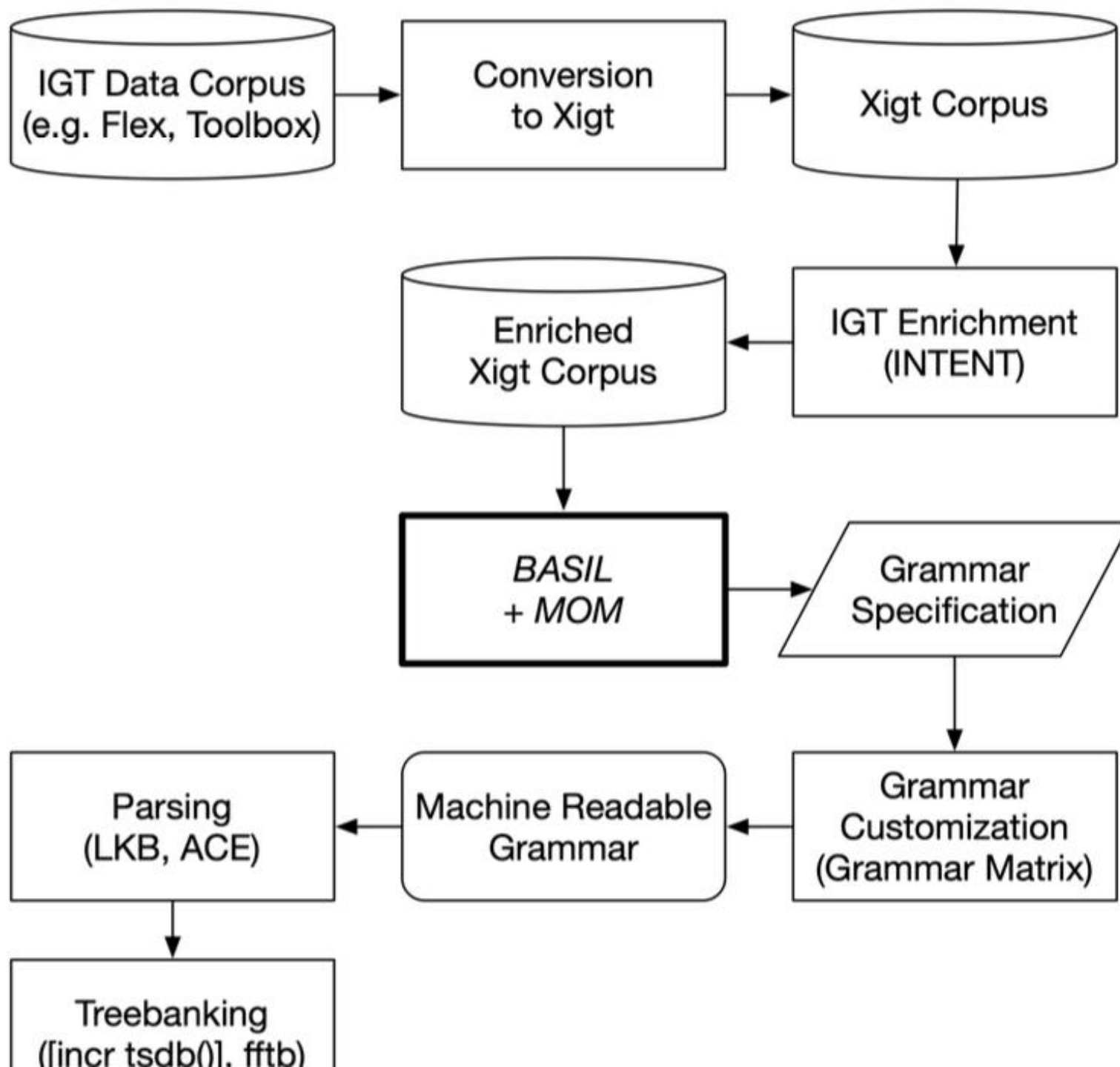


AGGREGATION

Overview/recap

Pipeline (high-level)





Pipeline (detailed)

From Howell (2020)



Adnominal possession inference

Adnominal possession: scope

- Library added to Grammar Matrix by Nielsen (2018)

- English examples:

• *her book*

• *Maya's book*

possessor



possessum



Adnominal possession: some examples

- 1) rumah Maya
house Maya
'Maya's house' (ind)
- 2) ne-pikaai
1SG.al-head
'my head' (abz)
- 3) il mio libro
the.M.SG my.M.SG book
'my book' (ita)

Inference goals

- Is possession expressed through marking on the possessor?
The possessum? Both? Neither?
- What other features are marked on possessive markers (e.g. PNG)?
- Are there pronouns whose function is only possessive?
- Are possessive markers affixes? Clitics? Separate words?
- *Etc...*

Toy example (spa)

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  <tier id="p" type="phrases">
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  </tier>
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    <item id="gw1" alignment="w1">my</item>
    <item id="gw2" alignment="w2">brother</item>
    <item id="gw3" alignment="w3">run.3sg</item>
  </tier>
  <tier id="tw" type="words" segmentation="t">
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    <item id="tw2">brother</item>
    <item id="tw3">runs</item>
  </tier>
  <tier id="tw-ds" type="dependencies" dep="tw" head="tw">
    <item id="tw-ds-dep1" dep="tw1" head="tw2">poss</item>
    <item id="tw-ds-dep2" dep="tw2" head="tw3">nsubj</item>
    <item id="tw-ds-dep3" dep="tw3">root</item>
  </tier>
</igt>
```

Evaluation

- For 5 test languages, use the output grammar specifications + the Grammar Matrix to create grammars
- Evaluate parse coverage & ambiguity of grammars
- Treebank selected sentences to verify MRS accuracy



Discussion

Seeking language examples :)

- Especially interested in languages with these phenomena:
- Standalone possessive word that agrees with either possessor or possessum
- Affix on the possessor
- Affix on the possessum that doesn't agree with possessor in person value



Thank you!

References

- [AGGREGATION website](#)
- Howell, Kristen (2020). "Inferring Grammars from Interlinear Glossed Text: Extracting Typological and Lexical Properties for the Automatic Generation of HPSG Grammars." PhD thesis. University of Washington.
- Kratochvil, Frantisek (2007). A grammar of Abui: A Papuan language of Alor. PhD thesis. Leiden University.
- Nielsen, Elizabeth (2018). "Modeling Adnominal Possession in the LinGO Grammar Matrix." Masters thesis. University of Washington.