An increasing number of almost no argumentative discourse markers

Most focus on weak argumentative structure

Our work is the first to be free and fluid in persuasive essays, legal documents, etc.

Opinion articles as argumentative text genre

First premises and conclusions

- High IAA scores
- Policy: involves the need to follow a specific directive or course of action
- Value: judgments or opinions, which may present stances of an ethical, aesthetic, or political nature

2. Corpus

Annotation methodology

ADUs

Fact - a piece of information whose veracity can often be verified
Policy - a piece of information whose veracity can often be verified
Value - judgments or opinions, which may present stances of an ethical, aesthetic, or political nature

ADU detection

Aim: analyze the extent to which annotators agree on the ADUs included in the text

- IAA metrics show that this is a very challenging task

Relation identification

Aim: IAA for the connection between ADUs pairs

- "Original" setup: "fair agreement"
- Graph simplification: removing IPs has considerable impact ("moderate agreement")

3. Annotation analysis

ADU argumentative roles

Aim: Graph simplification analysis focused on ADU roles (premise or conclusion)

- High IAA when removing intermediate premises (IP): confusion with first premises and conclusions

Relations

Source and Target types

- Phi-k correlation of 50%
- More relevant in pairs of ADUs with the same type of proposition

Type and Role

- Phi-k correlation of 55%
- Propositions of fact and premise role
- Propositions of value/policy and conclusion role

4. Inter-annotator agreement

ADU classification

Aim: IAA for ADU classification based on ADUs identified by both annotators

- "Moderate agreement" for the "Global" metric
- Confusion matrix

Graph-based analysis

Aim: Graph-based agreement measure capturing the semantic similarity between different argument graphs

- Annotations tend to agree with the overall structure of the annotation graph, even though some disagreement is observed between IPs and conclusion

Acknowledgments: This research is supported by project DARGMENTS (POCHI/18/IA6/FEI/2018), LIACC/ICTDUCCEC-9657020), INESC-ID (UIDB/50021/2020) and CLUP (UIDB/00022/2020), Fundador, Fundação para a Ciência e a Tecnologia (FCT), Gil Rocha is supported by a PhD grant (SFRH/BD/140125/2018) from FCT.