Resolving Conflicts in Knowledge Graphs Using Abstract Argumentation Frameworks

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Coffee or No Coffee?: Let's argue about it

agent 1	+	Coffee is a rich source of antioxidants that help to protect the body against oxidative stress
agent 2	_	We have to consider the negative effect of Caffeine on sleep
agent 1	+	Caffeine, the active ingredient in coffee, can help to improve mental alertness. Is not it possitive?
agent 2	_	But lack of sleep decreased cognitive function and impairs decision-making abilities
agent 2	_	Also, lack of sleep increases risk of developing mental health disorders, such as anxiety and depression

What are the main goals of this project?

- Researchers have shown interest in combining different artificial intelligence techniques to create more powerful and effective systems
- Knowledge graphs can be used to capture and organize knowledge in a variety of domains.
- Inconsistencies in the underlying dataset can lead to conflicts and contradictions within the knowledge graphs, which can affect the accuracy of the system's reasoning.
- In this project, we aim to use formalisms of argumentation for modeling the relation between knowledge graphs.
- we enhance the transparency and explanatory power of the system's decisions by utilizing the structure of formalisms of argumentation.