An Introduction to Computational Argumentation Semantics (2/5)

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Argumentation fallacies

- Logical fallacies `https://yourlogicalfallacyis.com/`
- You are welcome to download a free Creative Commons version of the poster and the cards by clicking here `https://www.dropbox.com/s/tzni8eadnfj7xoz/CriticalThinkingPDFs.zip?dl=1`

It is said that we should wear masks since they decrease the chance of spreading the disease. However, Jack is still not sick even if he never wears a mask.

Recognise the fallacy

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Anecdotal: using personal experience or an isolated example instead of a valid argument, especially to dismiss statistics

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Black or white: where two alternatives are presented as the only possibilities, when in fact more possibilities exist

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Slippery slope: falsely asserting that if we allow A to happen, the Z will consequently happen too, therefore A should not happen

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2. Smoking pot is against the law; this leads many to believe it is wrong.

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Which fallacy? Begging the question: a circular argument in which the conclusion is included in the premise

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Appeal to authority: using the opinion of an authority figure in place of an actual argument

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- http://www.cril.univ-artois.fr/~vesic/2018_HOFA.pdf

Principles

- Language independence
- Conflict-freenes
- Admissibility
- Strong admissibility
- Reinstatement
- Weak reinstatement
- CF-reinstatement
- Rejection
- I-maximality
- Allowing abstention
- Crash resistence
- Non-interference
- Directionality
- Weak directionality
- Semi-directionality
- Succinctness
- Tightness
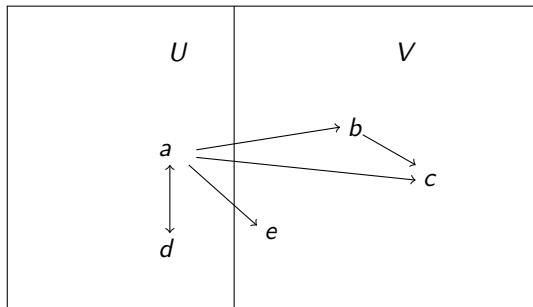- SCC-recursiveness
- . . .

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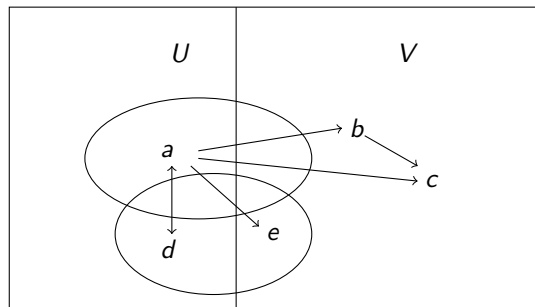 $\{\mathcal{E} \cap U \mid$ where $\mathcal{E}$ is an extension of $\mathcal{F}\}$

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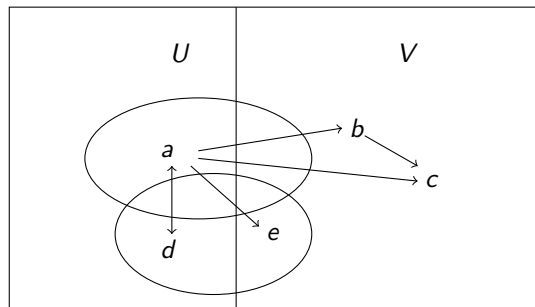 $\{\mathcal{E} \cap U \mid$ where $\mathcal{E}$ is an extension of $\mathcal{F}\}$

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Exercise: Is directionality satisfied by stable / preferred semantics?

Some principles

- Strong admissibility: for every extension $\mathcal{E}$, for every argument $a \in \mathcal{E}$, a is strongly defended by $\mathcal{E}$.
  We say that a is strongly defended by $\mathcal{E}$ if for every attacker b of a, there exists $c \neq a$ in $\mathcal{E}$ such that c attacks b and c is strongly defended by $\mathcal{E} \setminus \{a\}$.

Is strong admissibility satisfied by preferred / stable semantics?