

Argumentation as Information Input

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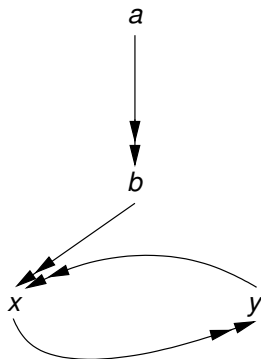
and

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Logic **L** (nonmonotonic) $\Delta_z \vdash z$

EXAMPLES OF GENUINE INFORMATION INPUT FROM THIS COMMA 2016

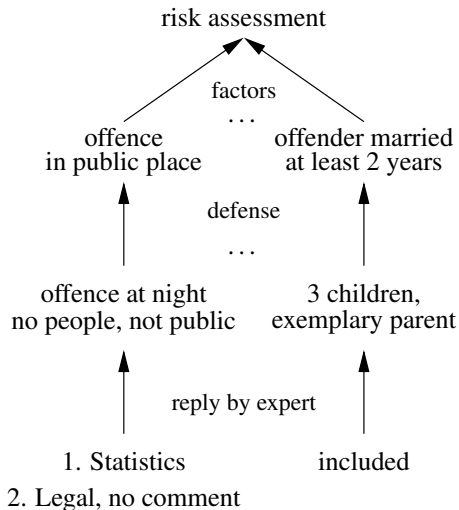
- There are many networks sending information along arrows, this is not new , **but we need to model the sending information in the context of argumentation.**
- Lecture of Serena Villata modelling twitter sequences: 30% political twits are information which could be either attack or defence
- Key lecture of J Allwood --some arguments can be either attack or support ,depending on context
- Lecture of Cyras-Sato-Toni----some information **“the car is red”** is not known if attack or support “, therefore left unmarked in their system

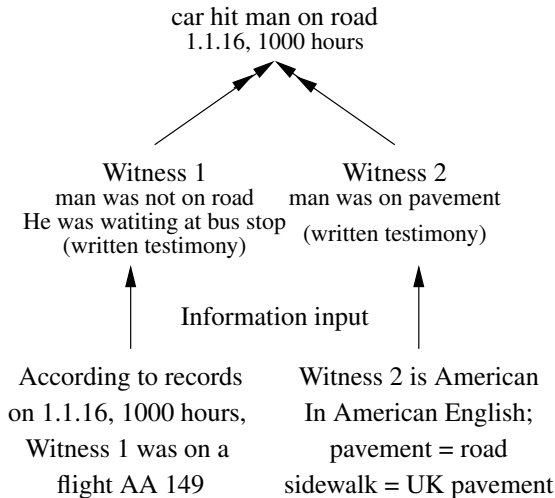
* Siens Moens Keynote: Context information is the greatest challenge for machine acquiring knowledge

* Saint Dizier--attached additional knowledge to arguments

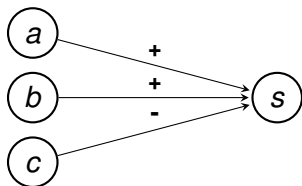
* Tom Blount- Social media

Attack as information input





Another Example



Should s be accepted? Various options, e.g.

- no negative and all positive links are active, or
 - no negative and at least one positive link is active, or
 - more positive than negative links are active.

Bottom line: need an acceptance condition for each of the nodes.

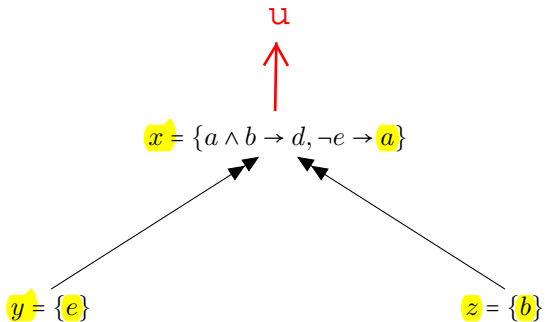
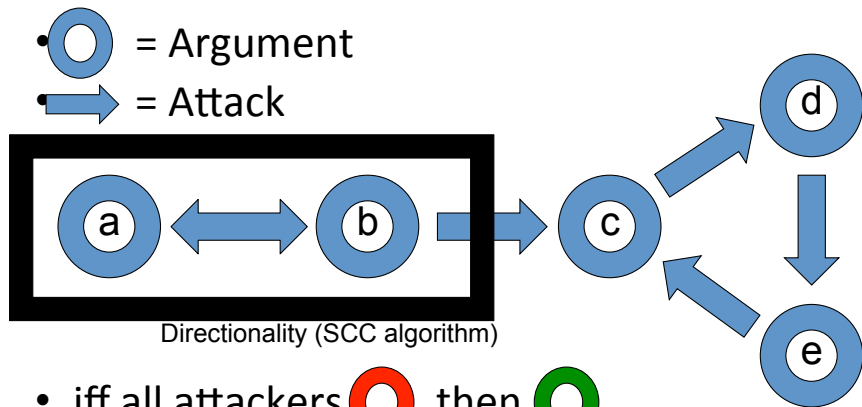


Figure 4: A logic programming example

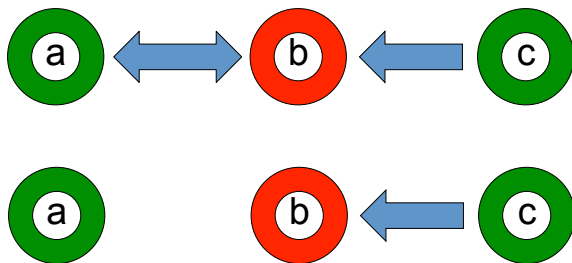
1. [Dung 1995]: Abstract argumentation (reminder)



- iff all attackers , then 
- iff there is an attacker , then 

1. Summary

- Dynamics of argumentation: the hidden semantics of frameworks



- Question: how are we going to study this dynamics?
 - “Proofs” like games, reasons as labels, strong equivalence, ...?

Need to develop semantics for information input

- 1 $a \rightarrow b$ can be either attack or support, depending on input.
In nonmonotonic logic, we may have $\Delta_b \vdash x$ but $\Delta_a \cup \Delta_b \vdash \neg x$.
- 2 Under the right logic and information chosen one can simulate traditional argumentation.
- 3 We need uniform semantics which will uniformly give the right results no matter what bipolar network the information gives.
- 4 Special handling of loops.