

- ① Trigger Identifier: Binomial
- ② Argument Labels: Multinomial
- ③ Event-Event Labels: Multinomial.

- ④? Argument Identifiers: Binomial (filters input to ②)
- ⑤! E-E relation Identifier: Binomial (filters input to ③)

- ⑥ Softconstraint "factors": for  $\text{animal}(x) \rightarrow \text{has tail}(x)$
- ⑦ Hard constraints.

## Questions

- ① Should ①, ②, ③, & (④, ⑤) be learned jointly?
- ② If not: One possible decomposition for learning
  - First learn ①
  - Then learn ②, ③, ④
  - Then learn ③, ⑤?
- ③ Another decomposition
 

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      graph LR
        1((1)) --> 4((4))
        4 --> 2((2))
        2 --> 6((6))
        1 --> 5((5))
        5 --> 3((3))
        3 --> 6
      
```
- ④ Tuning soft constraint weights  
part of
- ⑤ ~~Soft~~ Features.