to infer $|a||c|$ from $|b||c|$ ...

$\{\overset{L2}{|a||c|}\}$ & $\{\overset{L1}{|b||c|}\}$ → intervals

↳ $L\emptyset = \{|a||b||c|, |a|b||c|, |a|a,b||c|, |a|a,b|a||c|, |a|a,b|b||c|, |a,b||c|, |a,b|a||c|, |a,b|b||c|, |b|a,b||c|, |b|a,b|a||c|, |b|a,b|b||c|, |b||a||c|, |b|a||c|\}$

$s \in L\emptyset = |a||b||c|$, $voc(s) = \{a,b,c\}$

$\vdots$

$v \in voc(s) = \{a,b\}$

$\pi_v(s) = |a||b| = \rho$

$resid(\rho, L1, L2) \overset{?}{\rightarrow}$

$\rho \,\&\, L1 = \{|a||b||c|\} \rightarrow H$

$m \in L2 = |a||c|$, $voc(m) = \{a,c\} = v_m$

$\pi_{v_m}(H) \overset{?}{=} m$

$\mathrm{Tyr}_m(H) := m$

$|a||b| == |a||b|$ ✓

if $|a||b|$ is a residual,

Collect all

$gap(L, L') \rightarrow$ L = premises, L' = conclusions

- $L \& L' = \{ s'' \mid s \in L, s' \in L', s \& s' = s'' \}$

$p(L, L') =$

$\alpha = \{ \pi_V(s'') \mid \forall s'' \in L \& L', \forall V \subseteq vocabulary(s'') \}$

$\beta = \alpha \& L$

$\gamma = \{ a \mid a \in \alpha, \forall s' \in L', \forall b \in \beta, \pi_{voc(s')}(b) \equiv s' \}$

$\{ \pi_V(s'') \mid \forall s'' \in L \& L', \forall V \subseteq voc(s''), ((\forall s \in L)$

$(\forall r \in \pi_V(s'') \& s)(\forall s' \in L') \, \pi_{voc(s')}(r) \equiv s') \}$

$\min \hat{L} = \{ r \mid r \in \hat{L}, \forall V \subset voc(r), \pi_V(r) \notin \hat{L} \}$

$gap(\|b|c\|, \|a|c\|) =$

$\|a,b\| + \|a|a,b\| + \|b|a,b\| + \|a|c\|$

Note: Tim's gap.pdf has the premises & conclusion the other way around.

$A = \{a, b, c\}$

$\mathcal{L}_A = \boxed{a} \,\&\, \boxed{b} \,\&\, \boxed{c} + \boxed{a} \,\&\, \boxed{b} + \boxed{a} \,\&\, \boxed{c} + \boxed{b} \,\&\, \boxed{c}$
$+ \boxed{a} + \boxed{b} + \boxed{c} + \varepsilon \;\ldots \quad \# \mathcal{L}_A = 1+1+1+1+3+3+3+13 = 26$

$s' = \boxed{b|c} \quad , \quad s = \boxed{a|c}$

$[\![s]\!]_A = \{ \boxed{a|c}, \boxed{b|a|c}, \boxed{a,b|c}, \boxed{a|b,c}, \boxed{a|b|c}, \boxed{a|c|b} \} = [\![L]\!]_A$

$[\![s']\!]_A = \{ \boxed{b|c}, \boxed{a,b|c}, \boxed{b|a|c}, \boxed{b|a,c}, \boxed{b|c|a}, \boxed{a|b|c} \} = [\![L']\!]_A$

$G = \{ \boxed{a,b}, \boxed{a|b}, \boxed{a|c} \} = gap(L, L')$

$[\![G]\!]_A = \{ \boxed{c|a,b}, \boxed{a,b,c}, \boxed{a,b|c}, \boxed{a,b} \} \cup$
$\{ \boxed{a|b}, \boxed{c|a|b}, \boxed{a|b|c}, \boxed{a|c|b}, \boxed{a,c|b}, \boxed{a|b,c} \} \cup$
$\{ \boxed{a|c}, \boxed{b|a|c}, \boxed{a|b|c}, \boxed{a|c|b}, \boxed{a,b|c}, \boxed{a|b,c} \}$

$\hookrightarrow$ = above, non-highlighted...

$[\![L']\!]_A \cap [\![G]\!]_A = \{ \boxed{a,b|c}, \boxed{b|a|c}, \boxed{a|b|c} \} \subseteq [\![L]\!]_A$

$[\![L']\!]_A \cap [\![L]\!]_A = \{ \boxed{a,b|c}, \boxed{b|a|c}, \boxed{a|b|c} \} \subseteq [\![G]\!]_A$

$res_A(L, L') =$

- Annotation part / semantics part
  extract timelines

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summarise
[1] conference papers / TimeML
applying SP

[2] Inference problems / DRT
+ residuals + fracas "test suite"

- Evaluation is important to ADAPT
  but tricky for us → fracas is all we've got
+ Differing granularities: challenges
- Formal evaluation? i.e. formal semantics

- Intro
- TimeML / TLINKS
- Literature Review
- DRT → existing
  - → input DRT becomes output strings
  - → Need to evaluate correctness of output
  - ↳ wrt PMB examples ← adding value
  - ↳ Manual evaluation

→ objective decision on correctness of output
→ can my manipulations produce something incorrect? No
→ can I construe a proof of this

- Fracas
  → if access to productive boxer
  → Do we get what Fracas says we should? This is also evaluation of a sort

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Doesn't have to be a corpus evaluation

TEA?
→ Manual evaluation?
→ manually convert to strings and show the inferences hold
→ demonstrates measpectuality

Zebra/scheduling?
→ Primer on finite state temporality ch. like lit. review
→ showing operations in action as

much as possible + reminders to help the examiners as often as possible

Make T.O.C.

Applications → code in appendix

↳ Linked w/ formal definitions

↳ show implementation

↳ evaluate correctness of code demonstrably → maybe not formal correctness proofs

→ test suites? would be good.