

DIRECTIONS TOWARDS PRACTICAL APPLICATIONS

— very briefly! —

- coalescence
- what if coupled leaf expansion?
- what about backtracking?

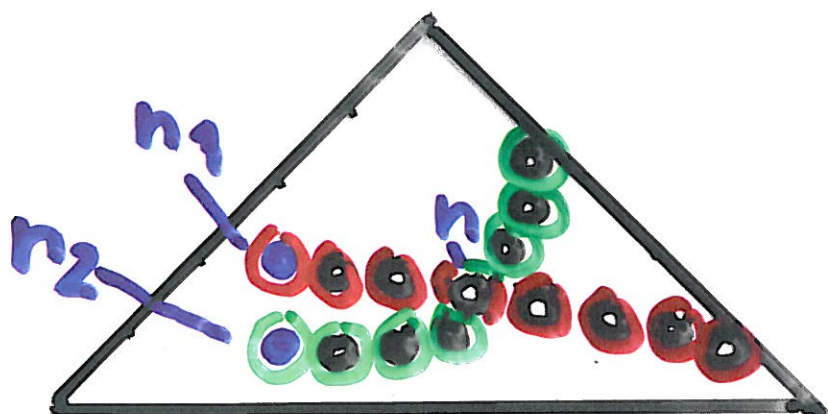
ON COALESCENCE

- analyzing the unbounded refinement context for each leaf to be expanded may be laborious !?
- what if the analysis were carried out in an incremental fashion? (see below)

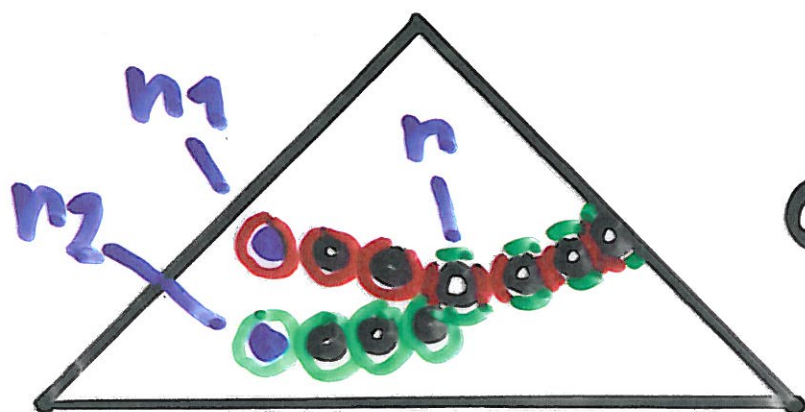
Note :

- the two sides of the context are here considered separately (which is rational)
- here we assume $S_1 = S_2$

- further assumption:
 n below holds a non-terminal



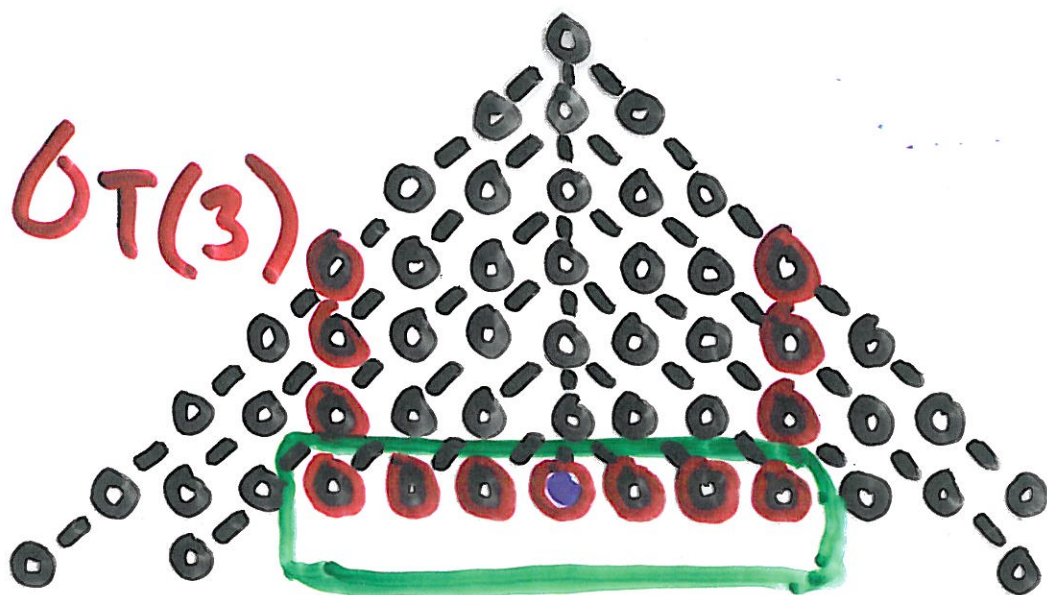
NOT
RIGHT-
COALESCENT!



RIGHT-
COALESCENT!

A result: Each one of G_I , G_C and $G_T(k)$ ($1 \leq k < \infty$) is both left-coalescent and right-coalescent

POSSIBLE CHANGE: ALLOWING COUPLED LEAF EXPANSION



Consider frame $(G_{T(3)}, G_{T(3)}, G_{E,E}, G_E)$

- The **marked** leaf set could in principle be expanded as a single coupled step, as the refinement contexts coalesce
- This promotes optimization — as it suffices that the coupled step as a whole preserves the semantics
- the same holds for $1 \leq k < \infty$

ANOTHER POSSIBLE CHANGE: ALLOWING BACKTRACKING

- a target scenario (?):
 - it could be examined whether some branch of the tree is "defective"
 - such a branch could then be deleted (and the leaf expansion would re-start at the cut point)
- it seems that this could be achieved by adopting some more (perhaps another 4) belt-selectors