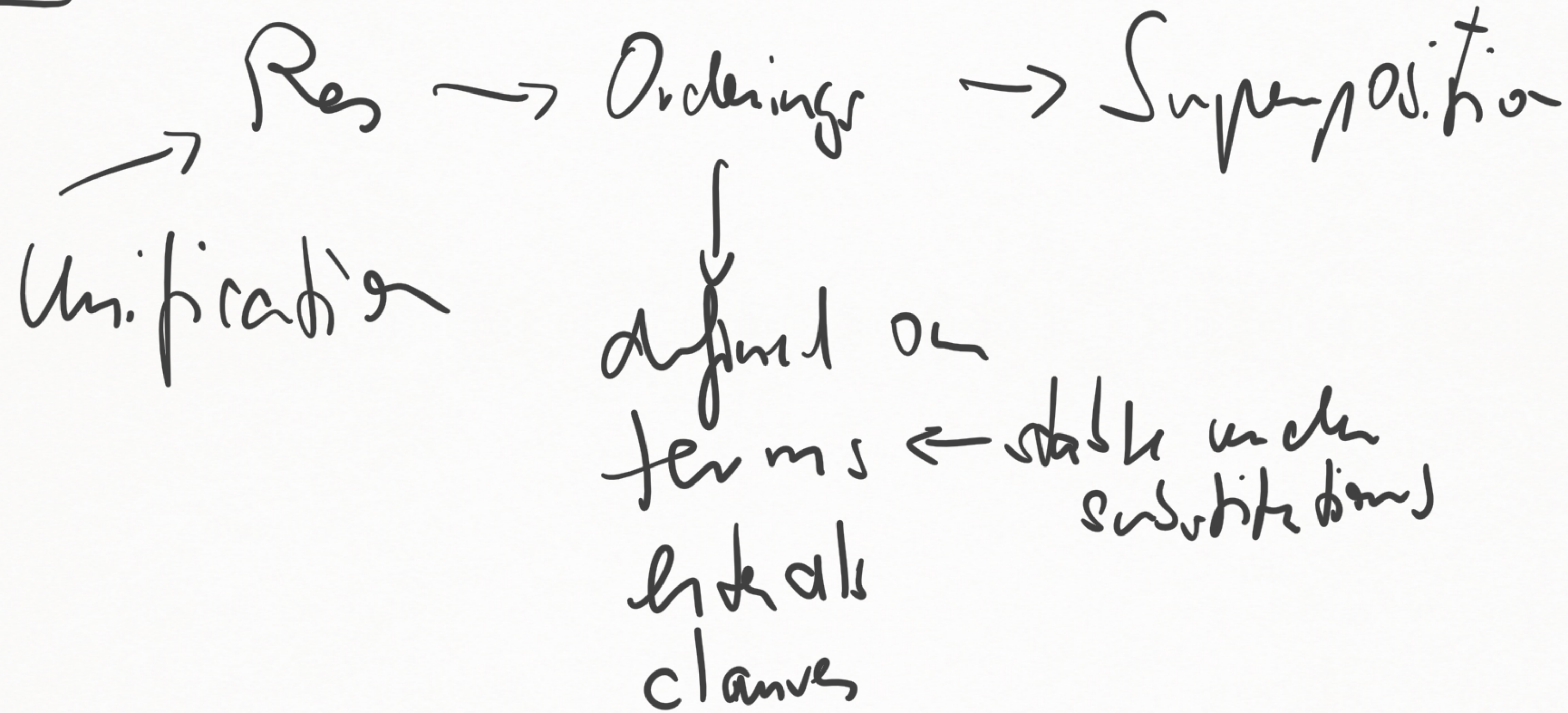
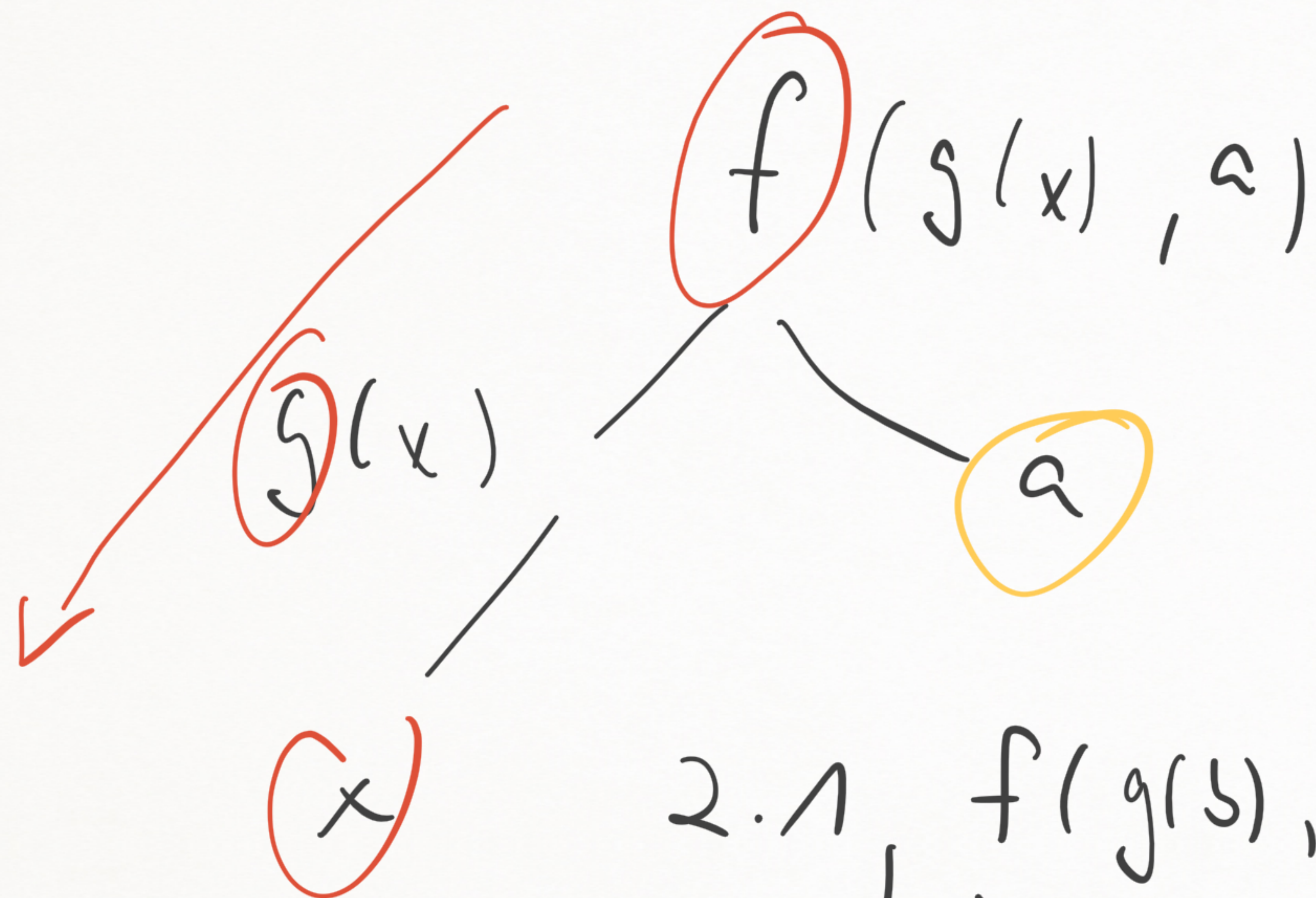


Prop: Res \rightarrow CDCL \rightarrow Superposition

Fo1: without Equality





$$\begin{aligned}
 2.1 \quad & f(g(b), c) >_{\text{no}} g(a) \\
 & b > a \rightsquigarrow g(b) \geq_{\text{no}} g(a) \\
 & \rightsquigarrow f(g(b), c) >_{\text{no}} g(a)
 \end{aligned}$$

$$\begin{aligned}
 2.2 \quad & f > g \\
 & f(a, a) \quad g(f(a, a), b) \\
 & f(a, a) \not>_{\text{no}} f(a, a)
 \end{aligned}$$

Implement LPO

f, g, s

→ compute all subproblems (subtask order)

$f(g(c), b)$ $g(c)$

→ $a, b, c, g(a), g(c), f(g(c), b)$

precompute

bottom-up

store results (dynamic programming)

90's research paper: how to implement LPO