Deficiencies of prolog

1. **Resolution order control:** Prolog matches in the same order, staring at the beginning of the database. Because of this, the user can profoundly affect the efficiency by ordering the database statements to optimize a particular application. If the user knows certain rules are more likely to succeed, he can place them in the beginning.

Ex: Explicit control of backtracking.

   a, b, !, c, d.

This ability to tamper with control flow is against the principles of declarative paradigm.

prolog is declarative ⇒ you cant specify order

But this way you _can_ specify order to minimize time

if result of A requires you to evaluate C
In A, b, c, d (only if all are true, will predicate be true)
   if C is false, don't evaluate A
   ⇒ a, b, !, c, d   [if C is false, don't come back]

(2) The closed word assumption: Misleading results

(3) Negation:
   Sibling (x, y) :— (parent(M, y), parent(M,x))
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