

# Blocks-World Example



**Open preconditions**

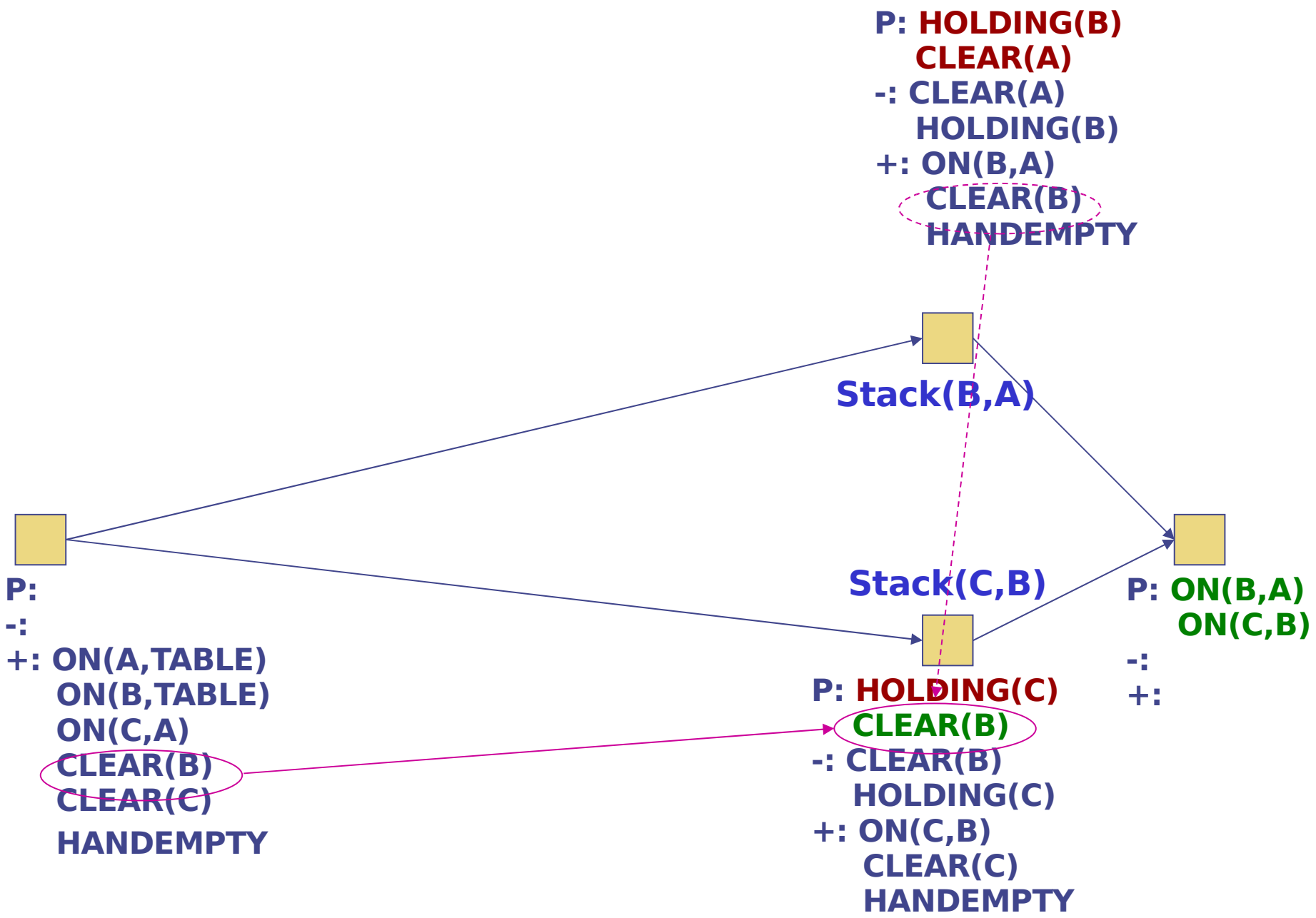
**The plan is incomplete**

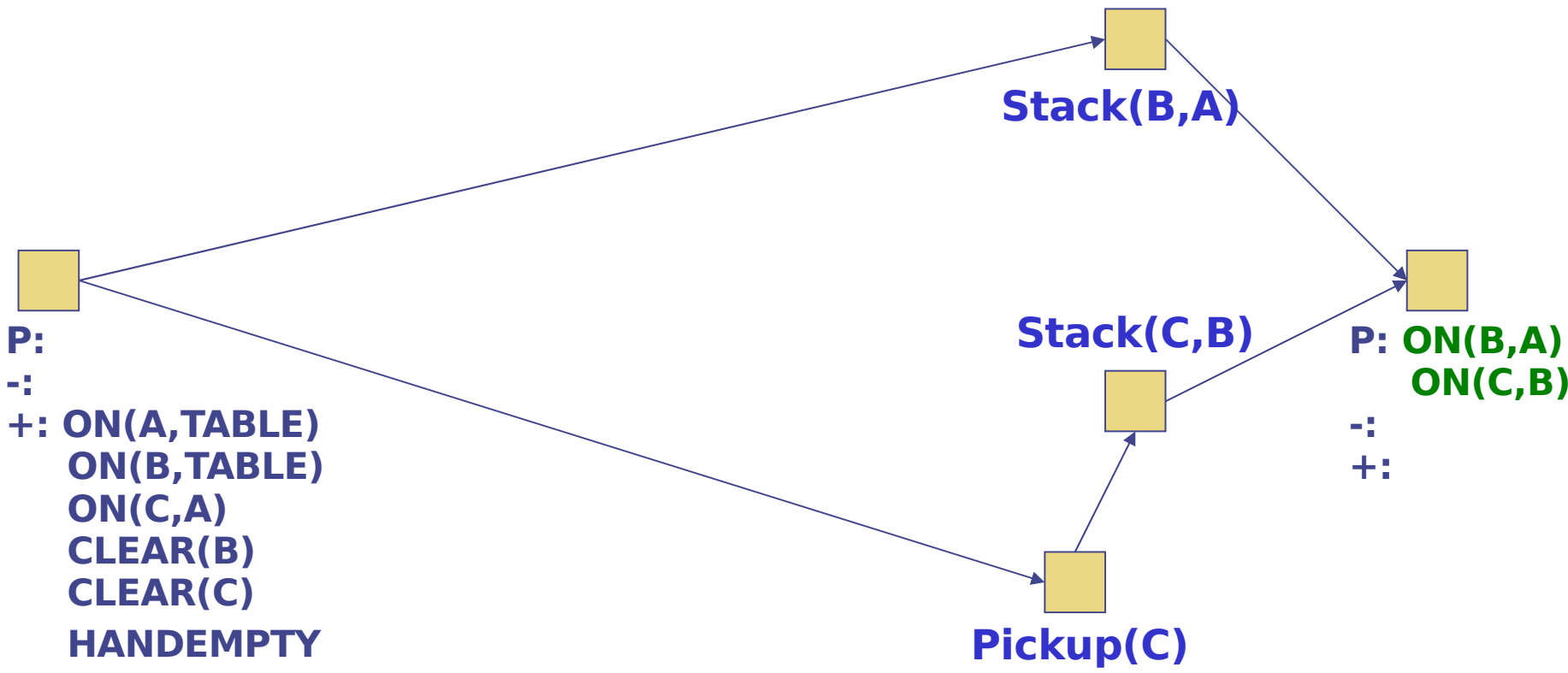
**P: HOLDING(B)**  
**CLEAR(A)**  
 -: CLEAR(A)  
 HOLDING(B)  
 +: ON(B,A)  
 CLEAR(B)  
 HANDEEMPTY

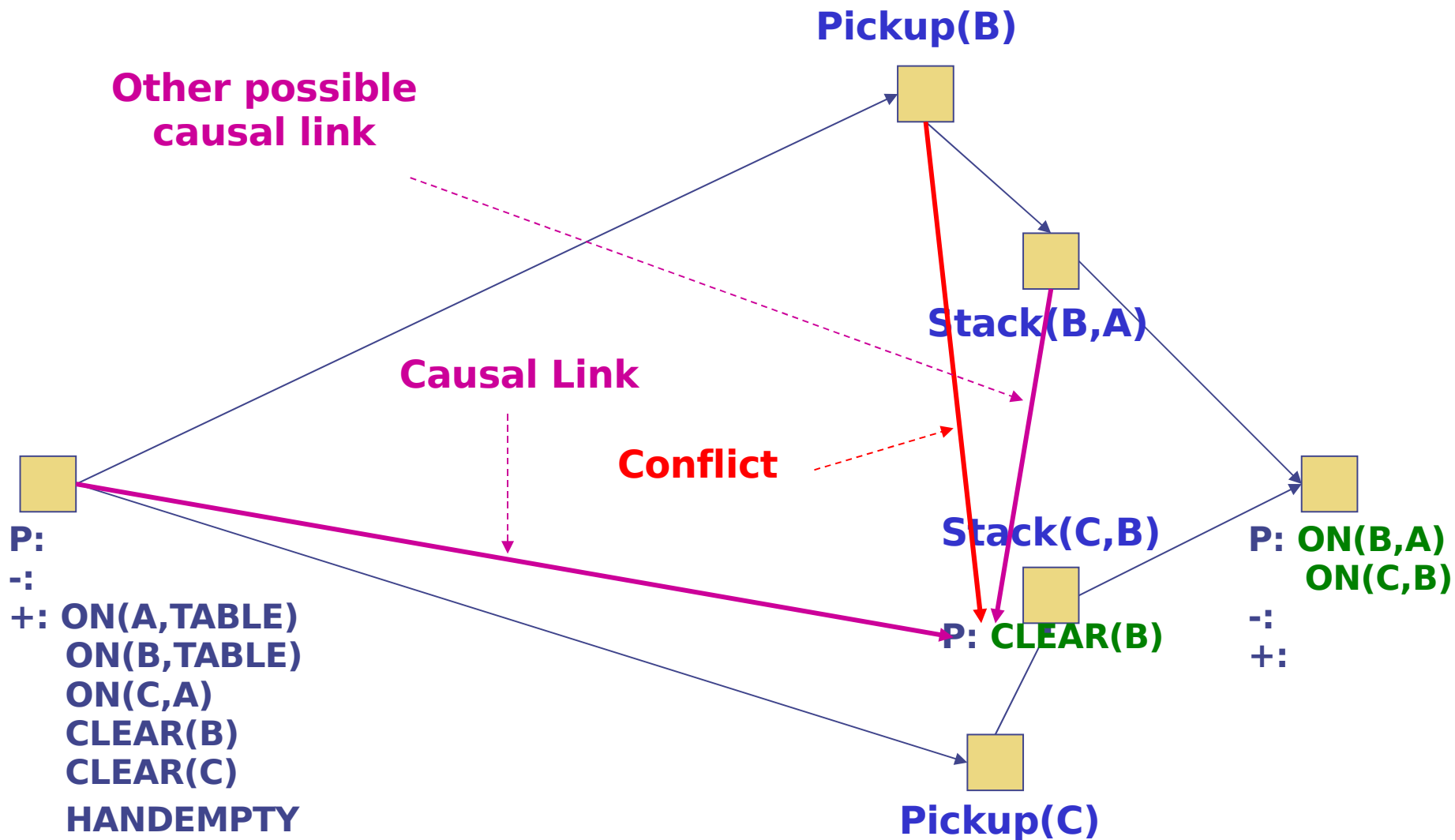
Stack(B,A)

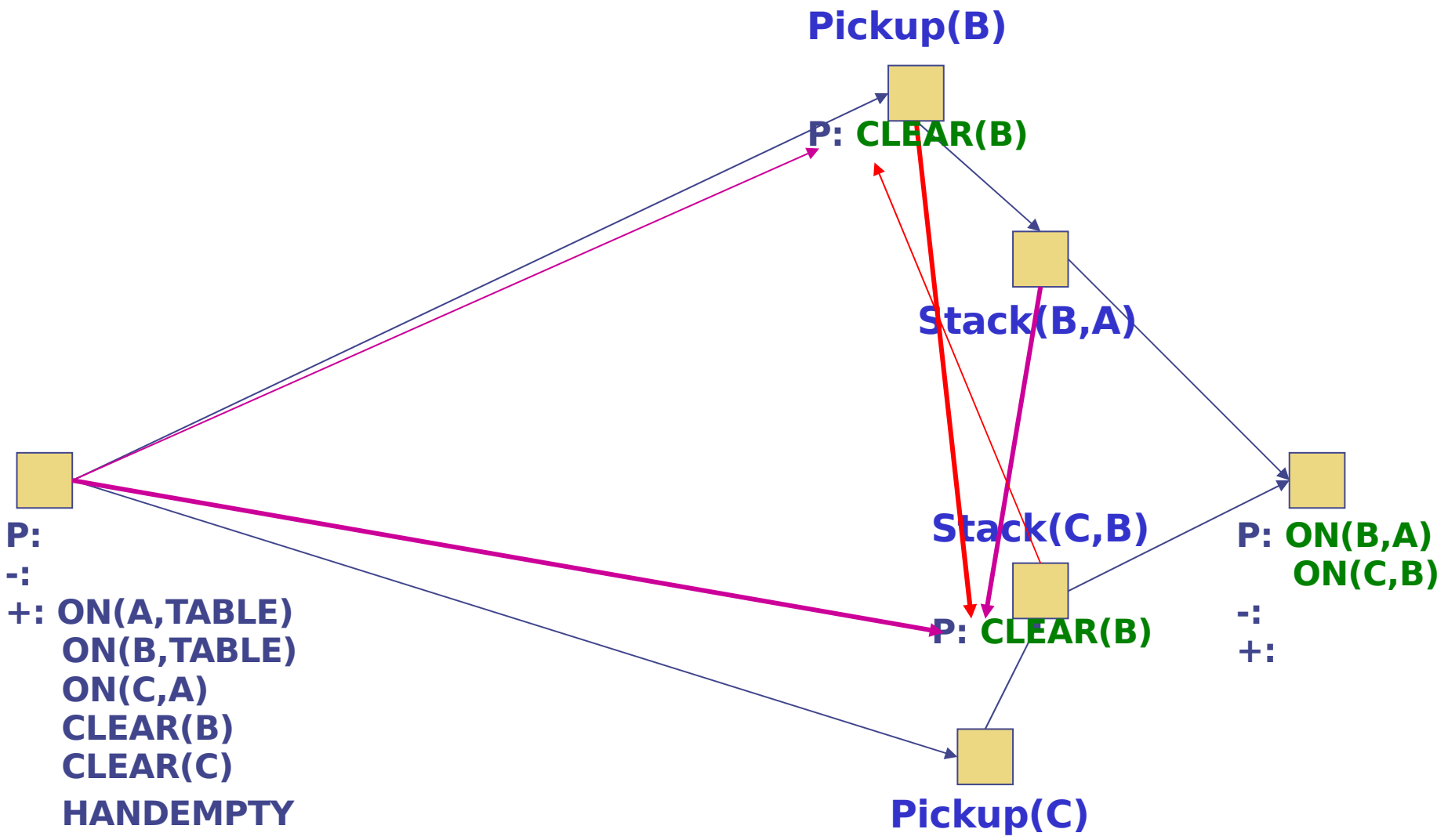
**P:**  
 -:  
 +: ON(A, TABLE)  
 ON(B, TABLE)  
 ON(C, A)  
 CLEAR(B)  
 CLEAR(C)  
 HANDEEMPTY

**P: ON(B,A)**  
**ON(C,B)**  
 -:  
 +:

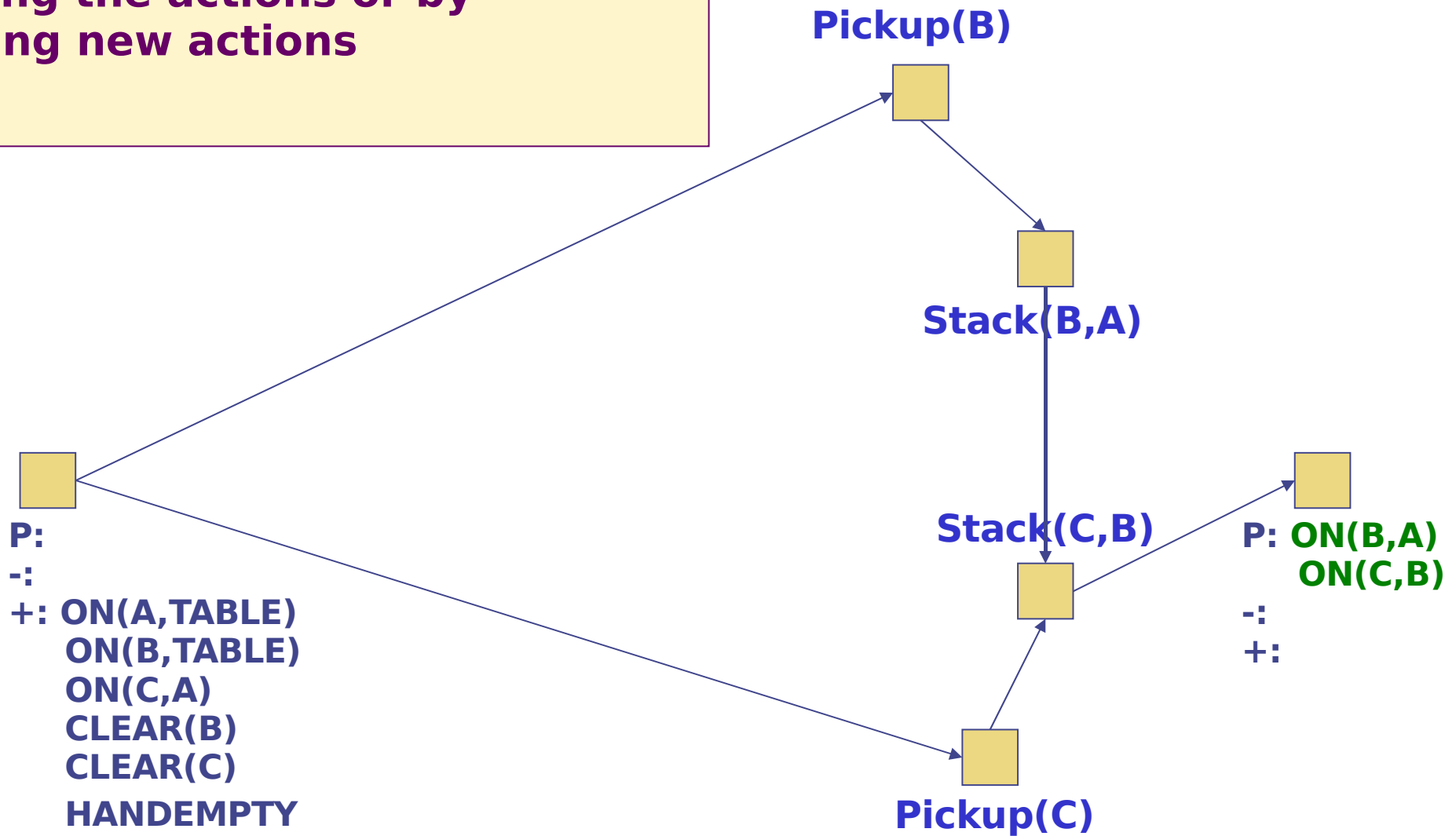


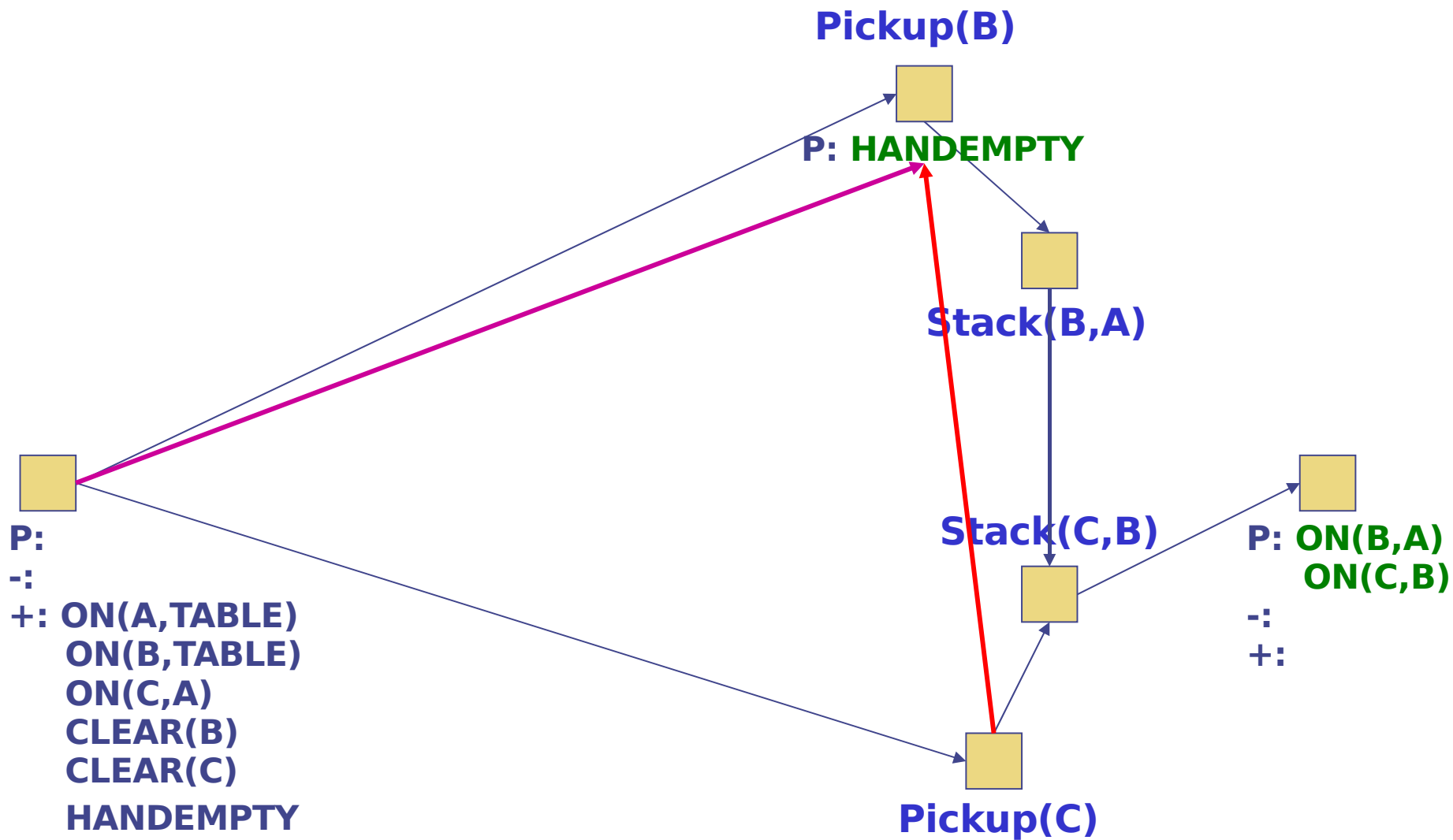




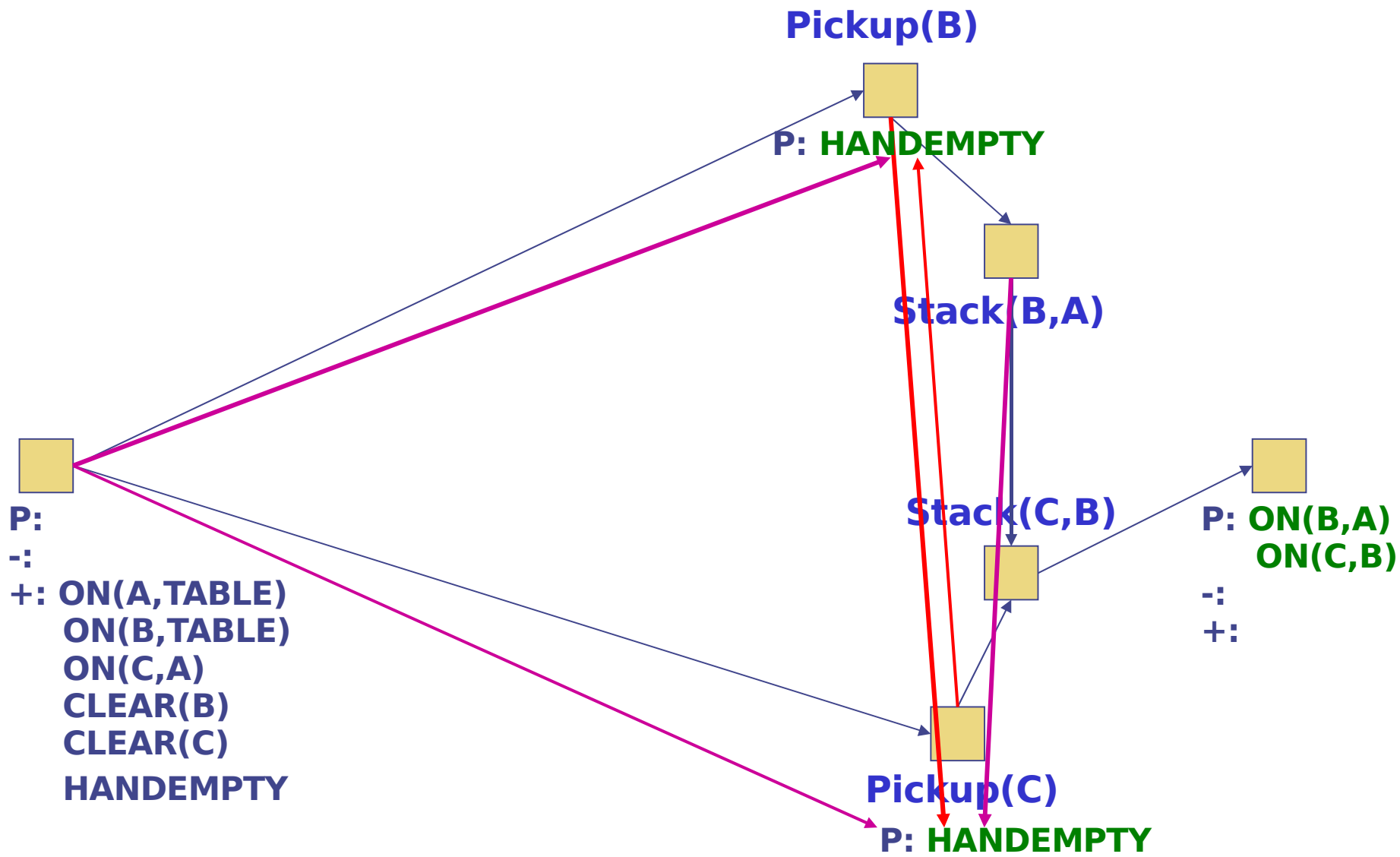


**A conflict can be eliminated by constraining the ordering among the actions or by adding new actions**









~ **Most-constrained-variable heuristic in CSP**  
 → choose the unachieved precondition that can be satisfied in the fewest number of ways  
 → **ON(C, TABLE)**

□  
 P:  
 -:  
 +: **ON(A, TABLE)**  
    **ON(B, TABLE)**  
    **ON(C, A)**  
    **CLEAR(B)**  
    **CLEAR(C)**  
    **HANDEEMPTY**

