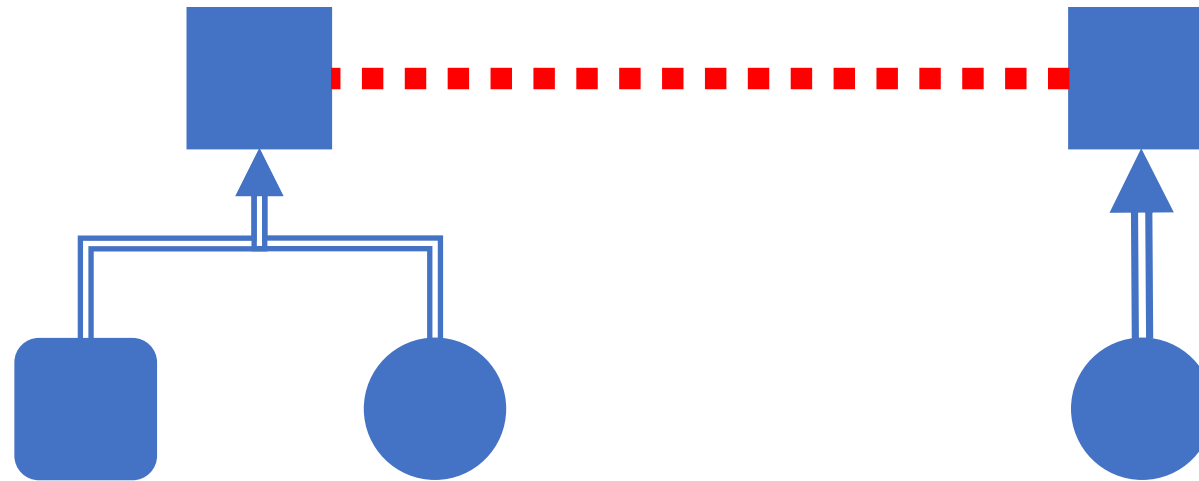# Block 3: Abstract argumentation

Argumentation
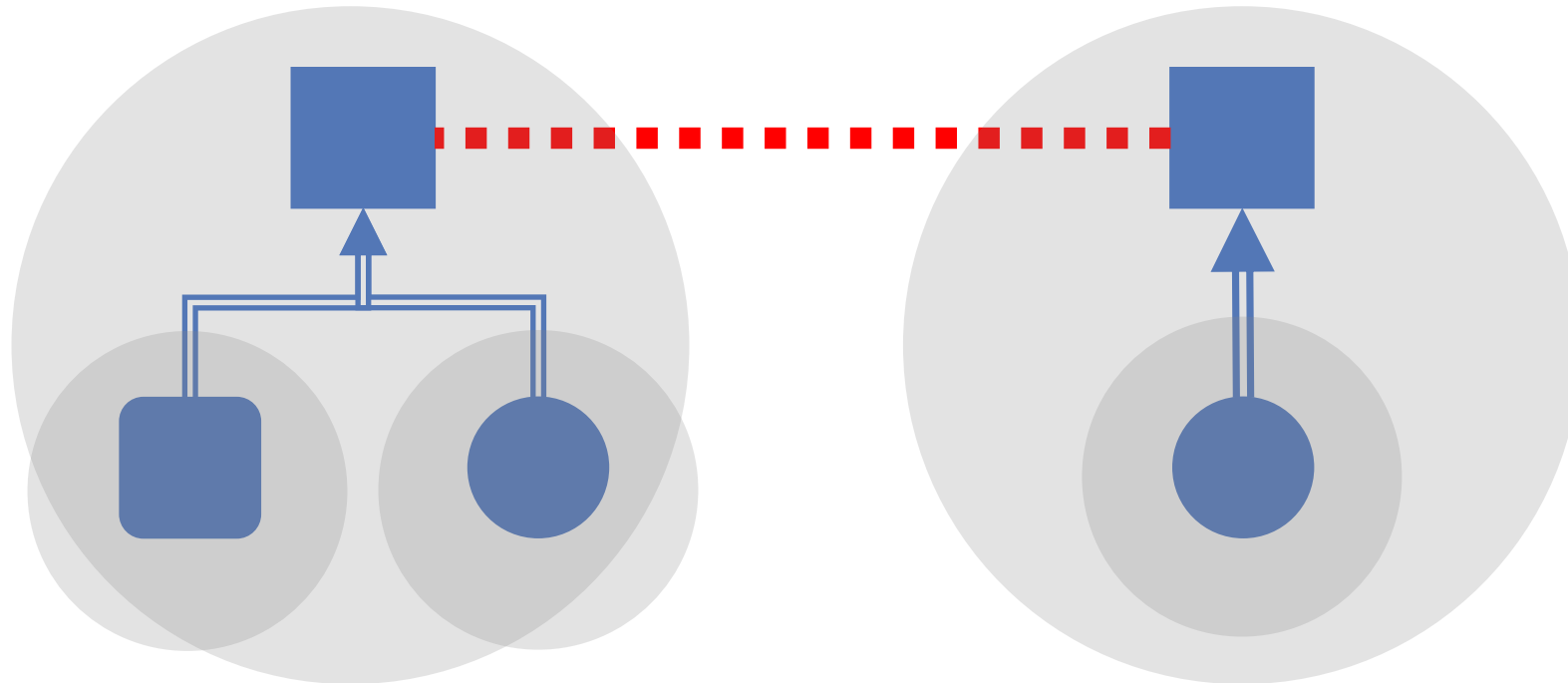
"A process based on three steps: the **exchange of arguments**, the **valuation of interacting arguments**, and the **definition of the most acceptable of these arguments**."

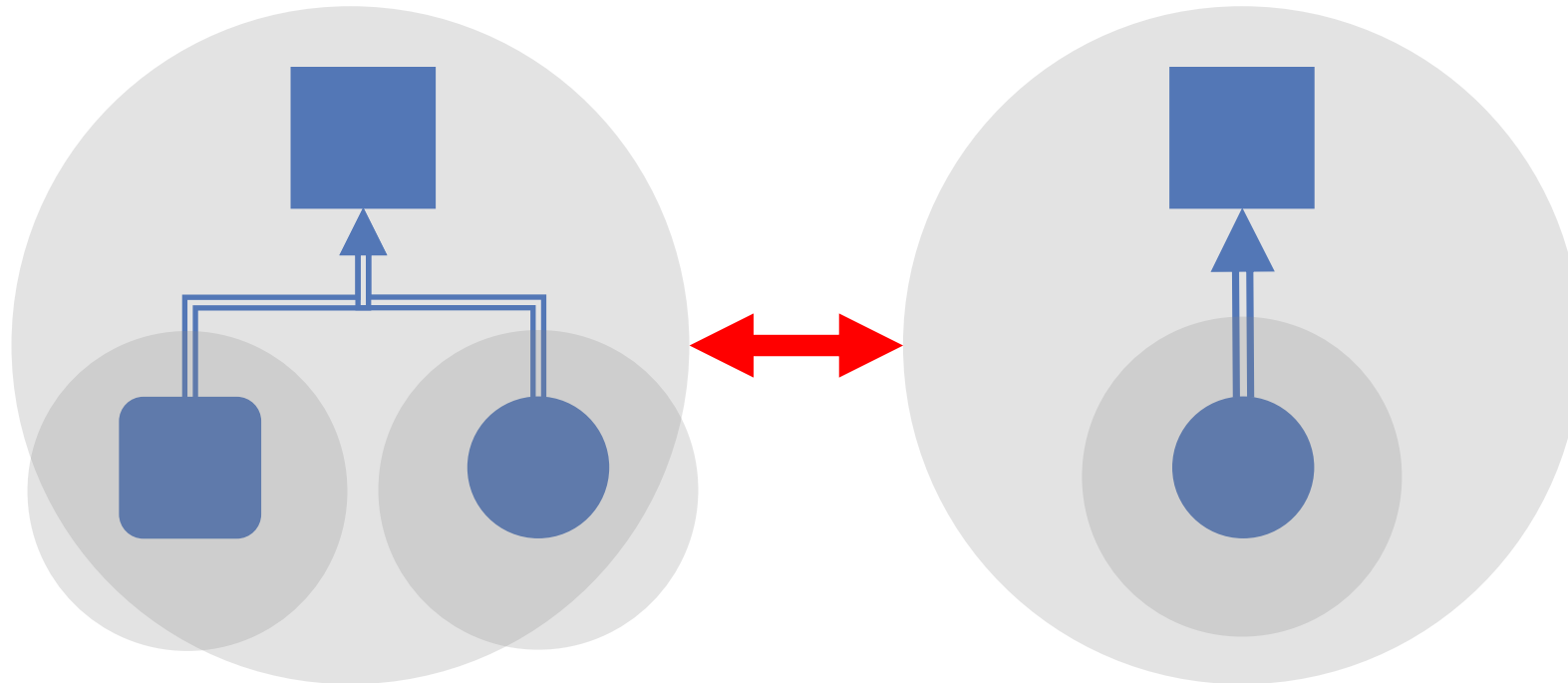*(C. Cayrol and M.C., Lagasquie-Schiex, 2005)*

Argumentation frameworks

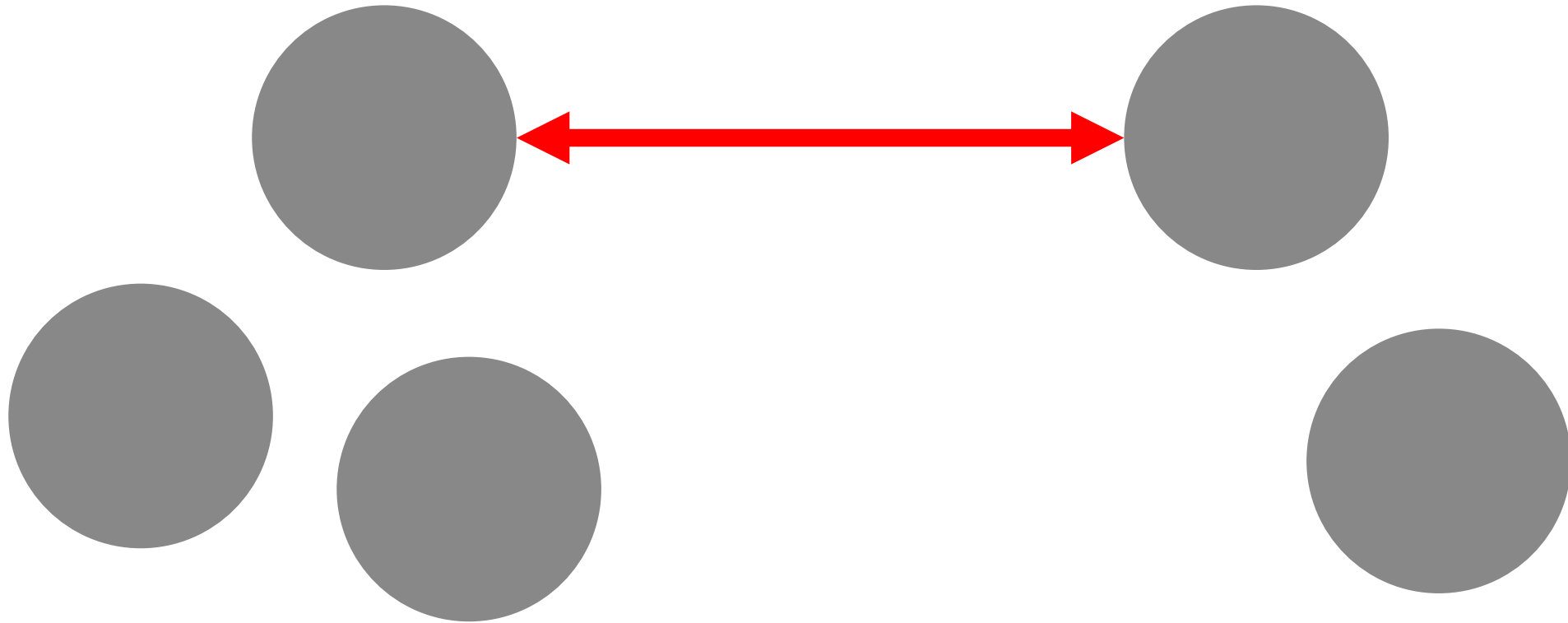# Argumentation frameworks
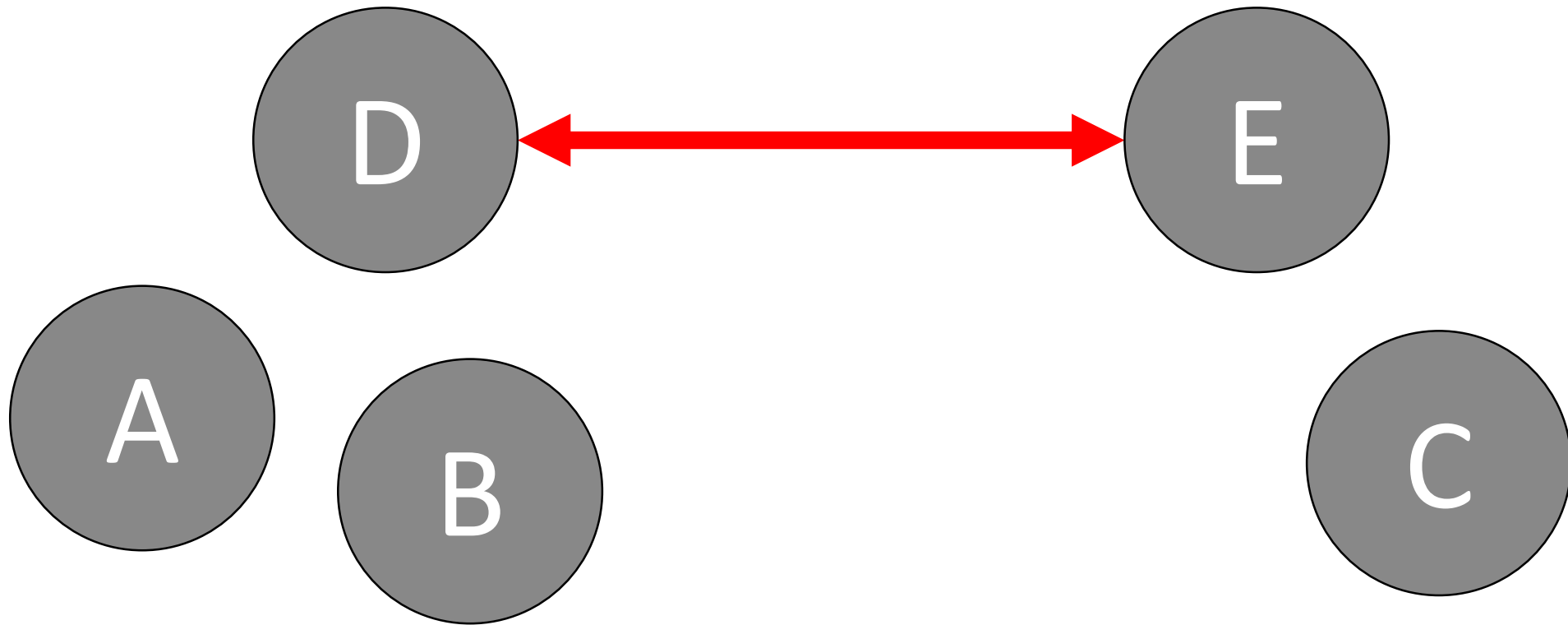
Argumentation frameworks

Argumentation frameworks

Semantics

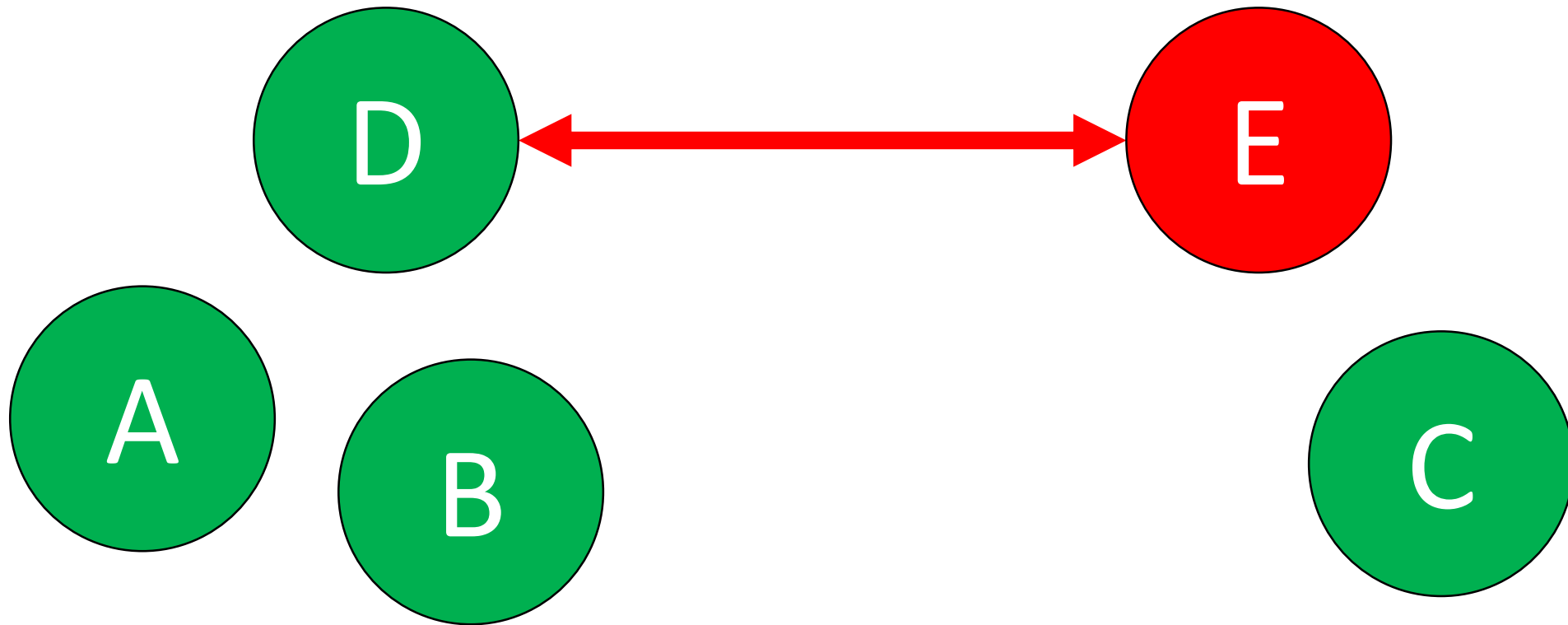# Complete labellings

- If one attacker is IN then the argument is OUT.
- If all attackers are OUT then the argument is IN.
- Otherwise, the argument is UNDECIDED.
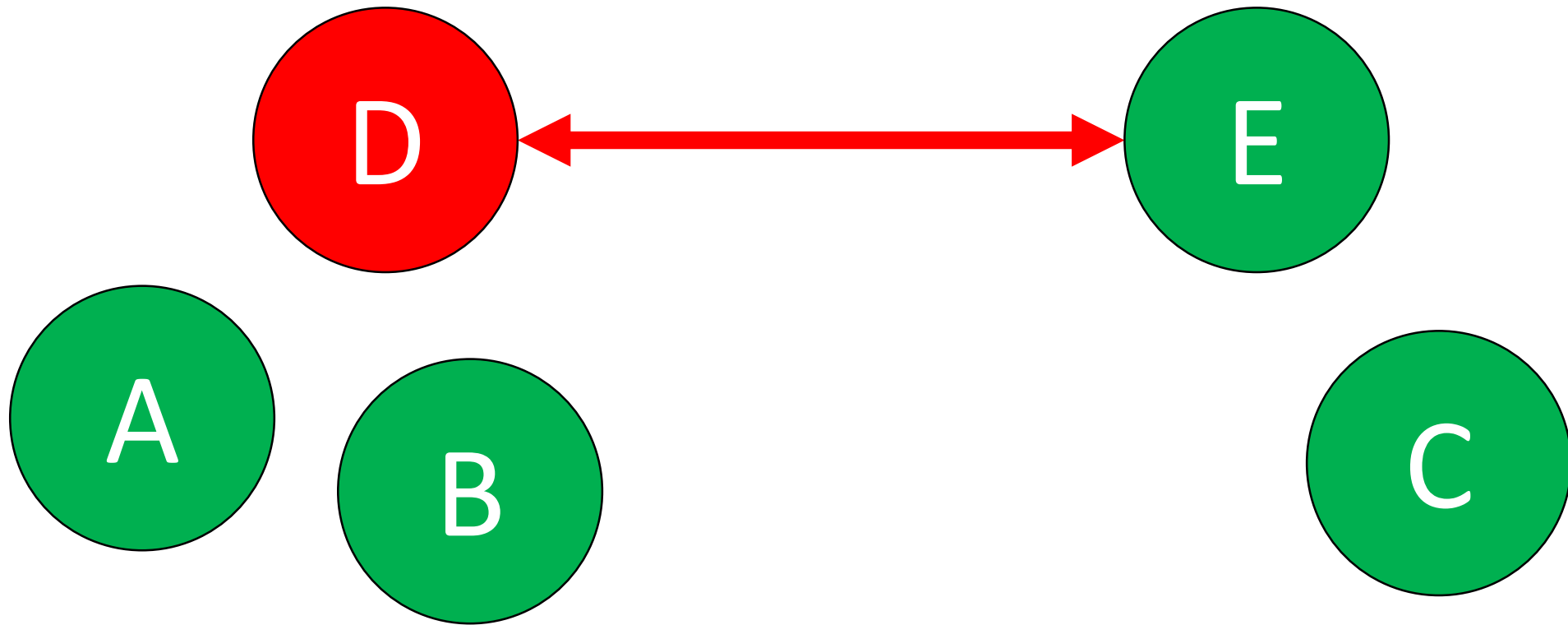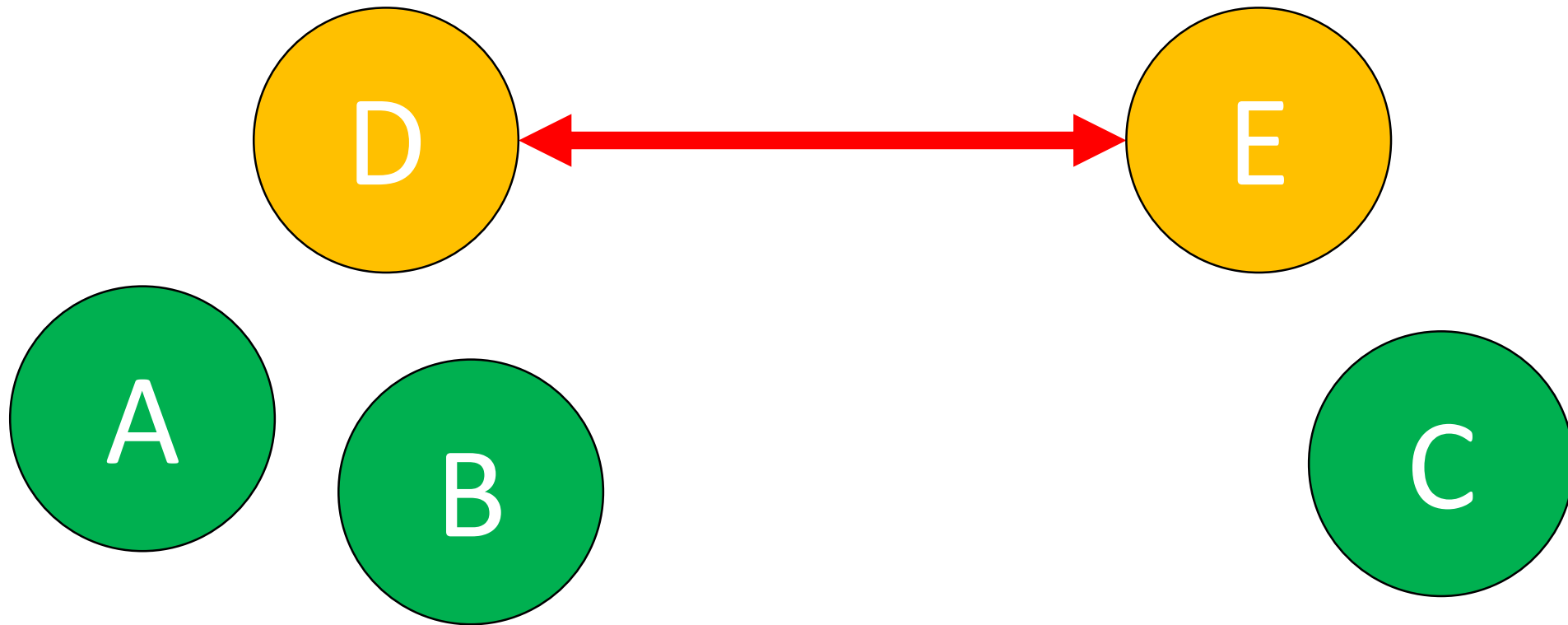
Which are the complete labellings?

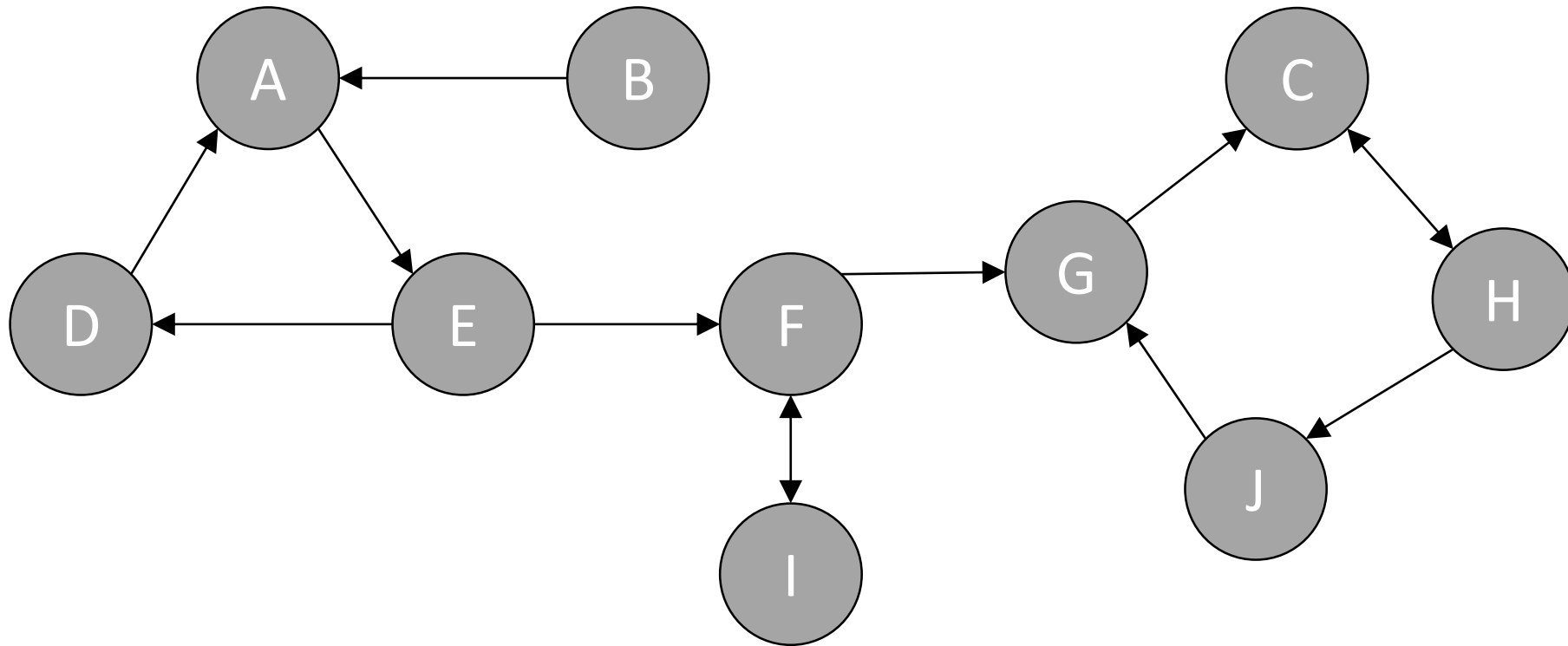# Which are the complete labellings?

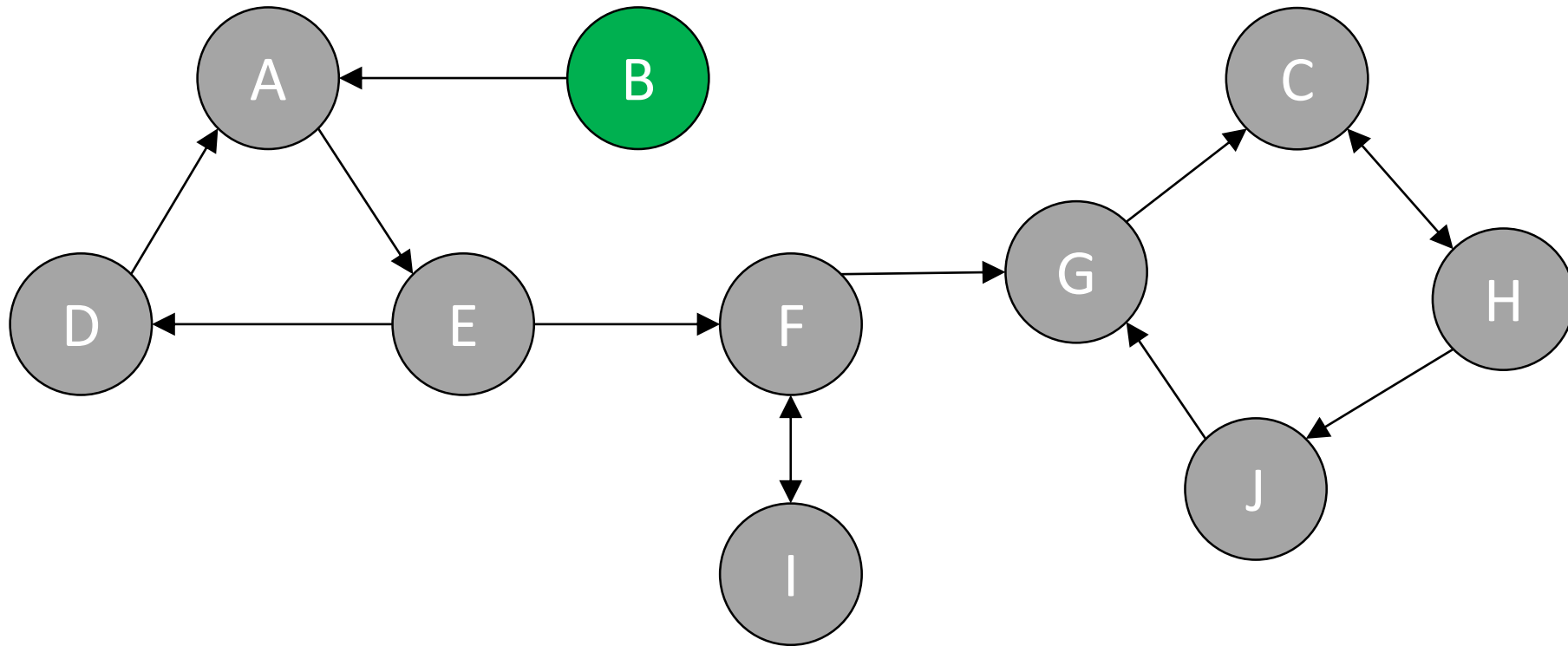# Which are the complete labellings?

Which are the complete labellings?

Grounded labelling

- If one attacker is IN then the argument is OUT.
- If all attackers are OUT then the argument is IN.
- Otherwise, the argument is UNDECIDED.
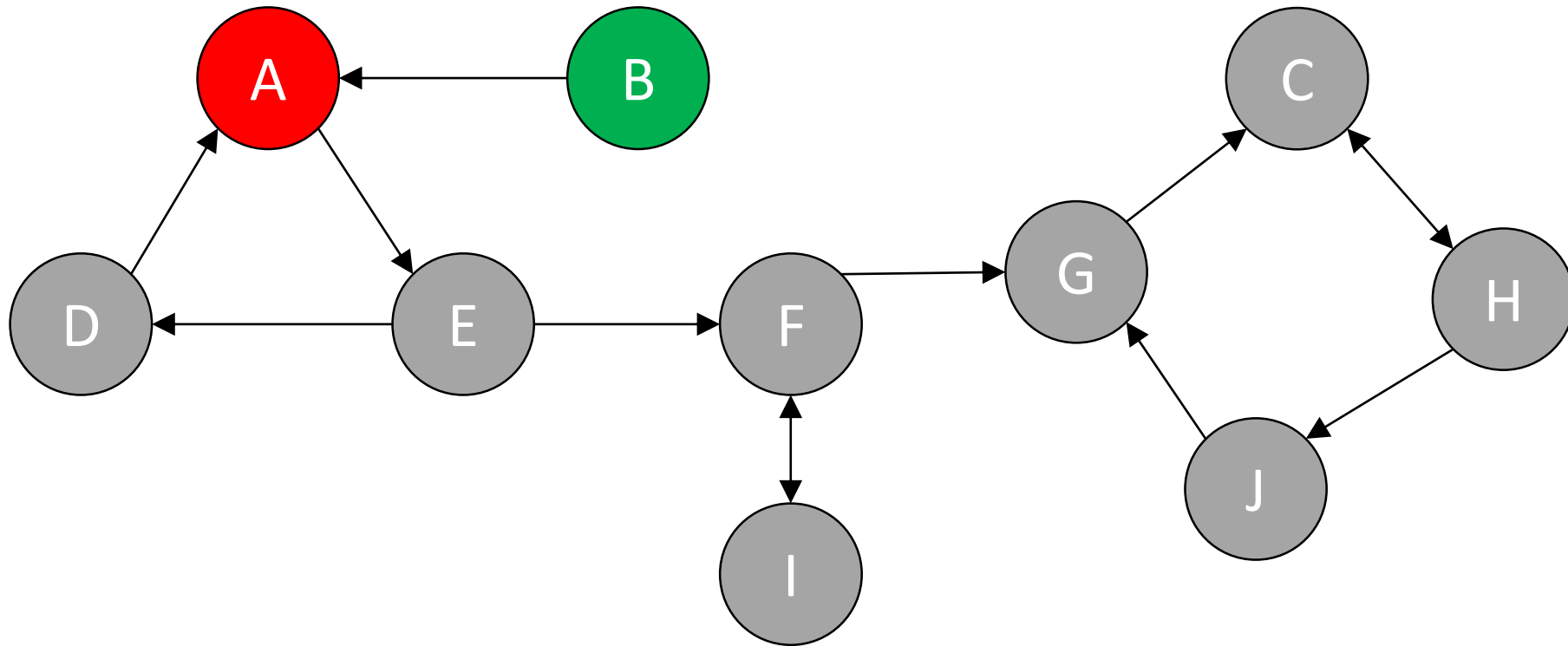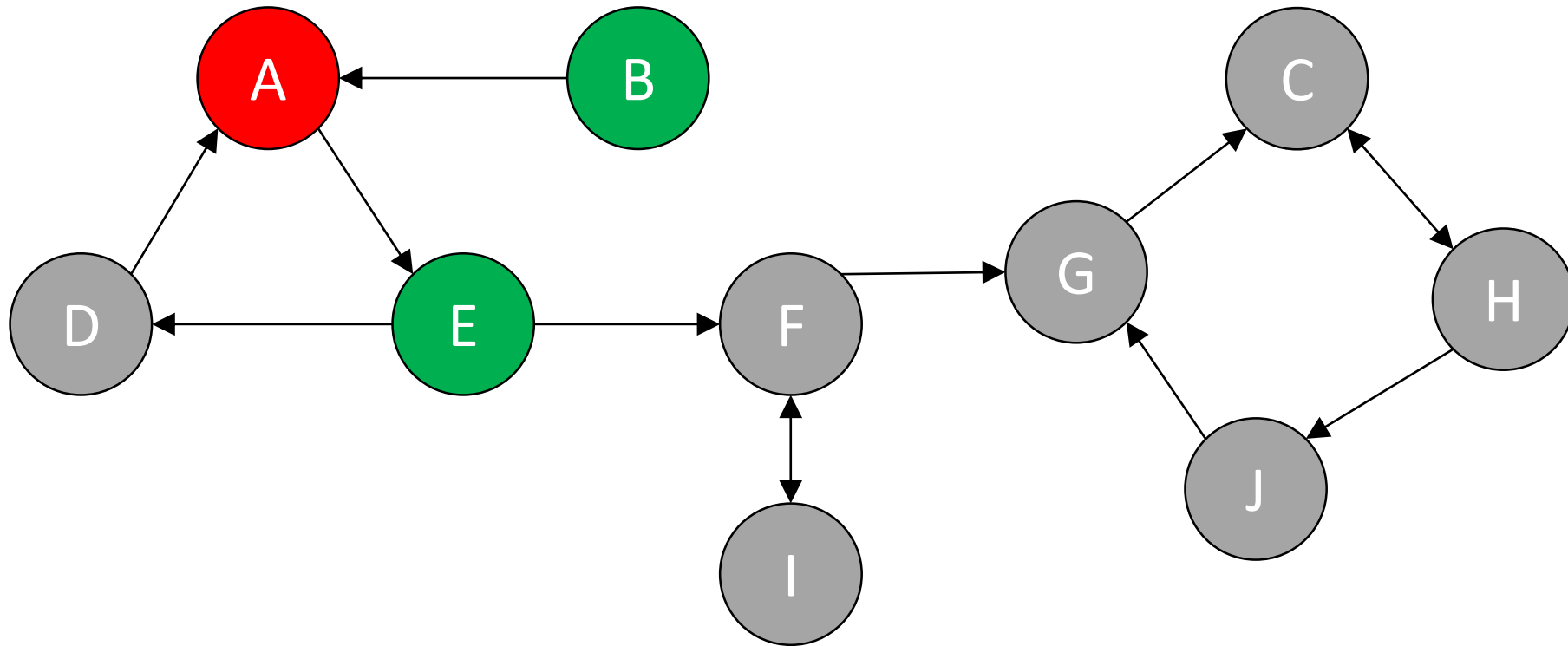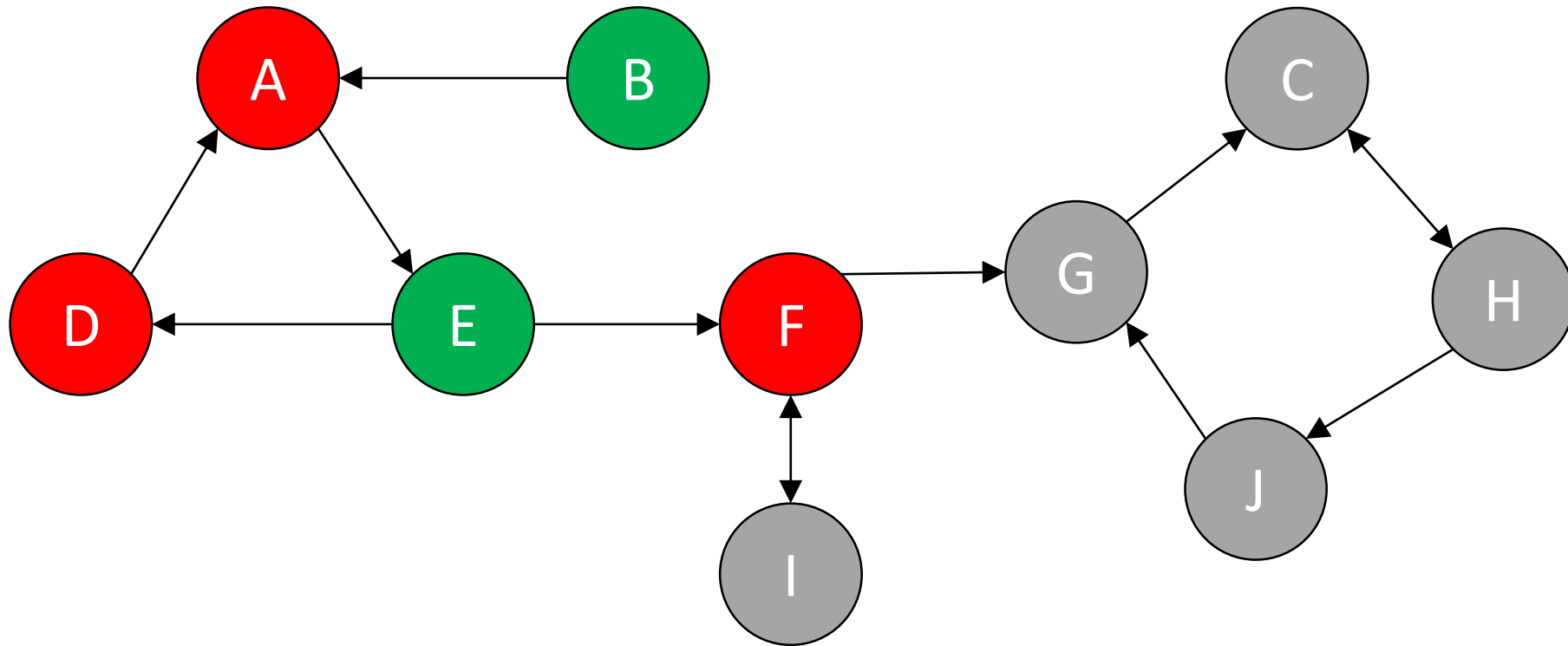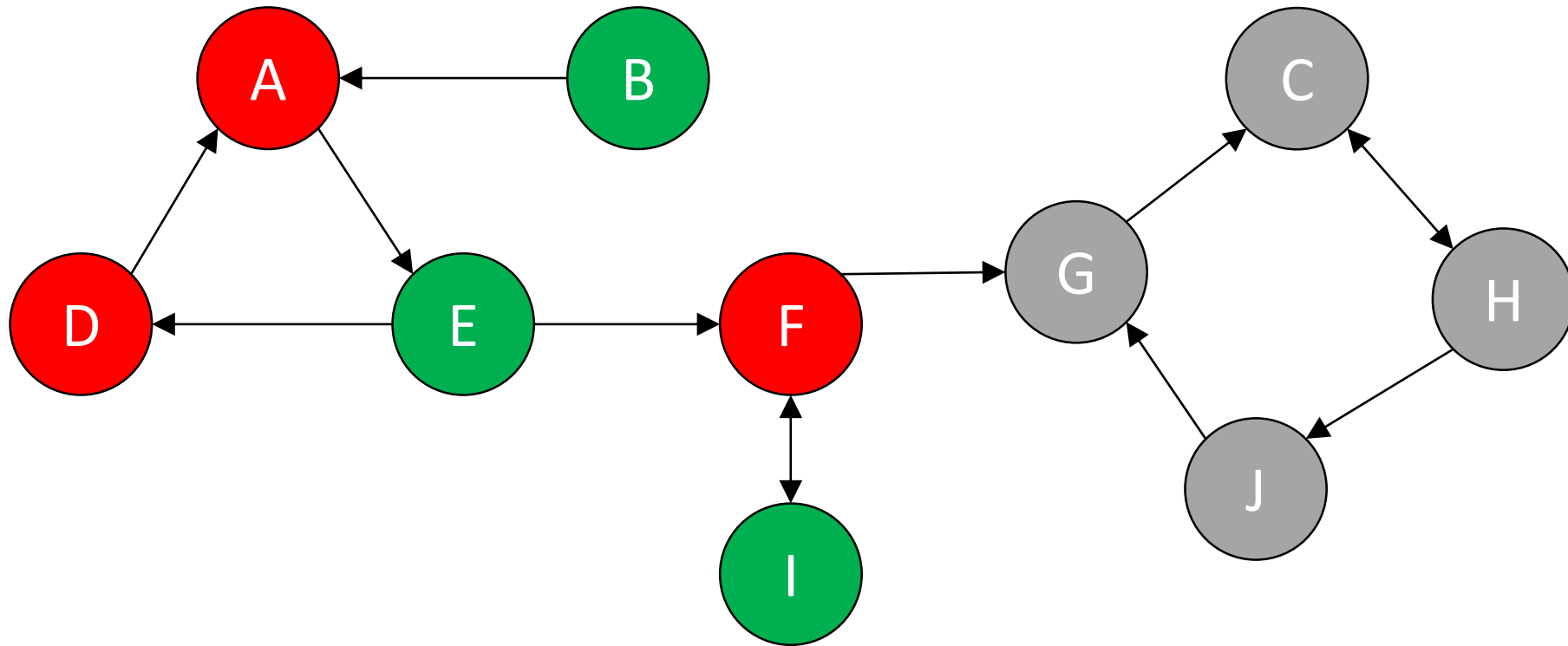- Minimize the IN arguments.

Which are the grounded labellings?

Which are the grounded labellings?

Which are the grounded labellings?

Which are the grounded labellings?

Which are the grounded labellings?
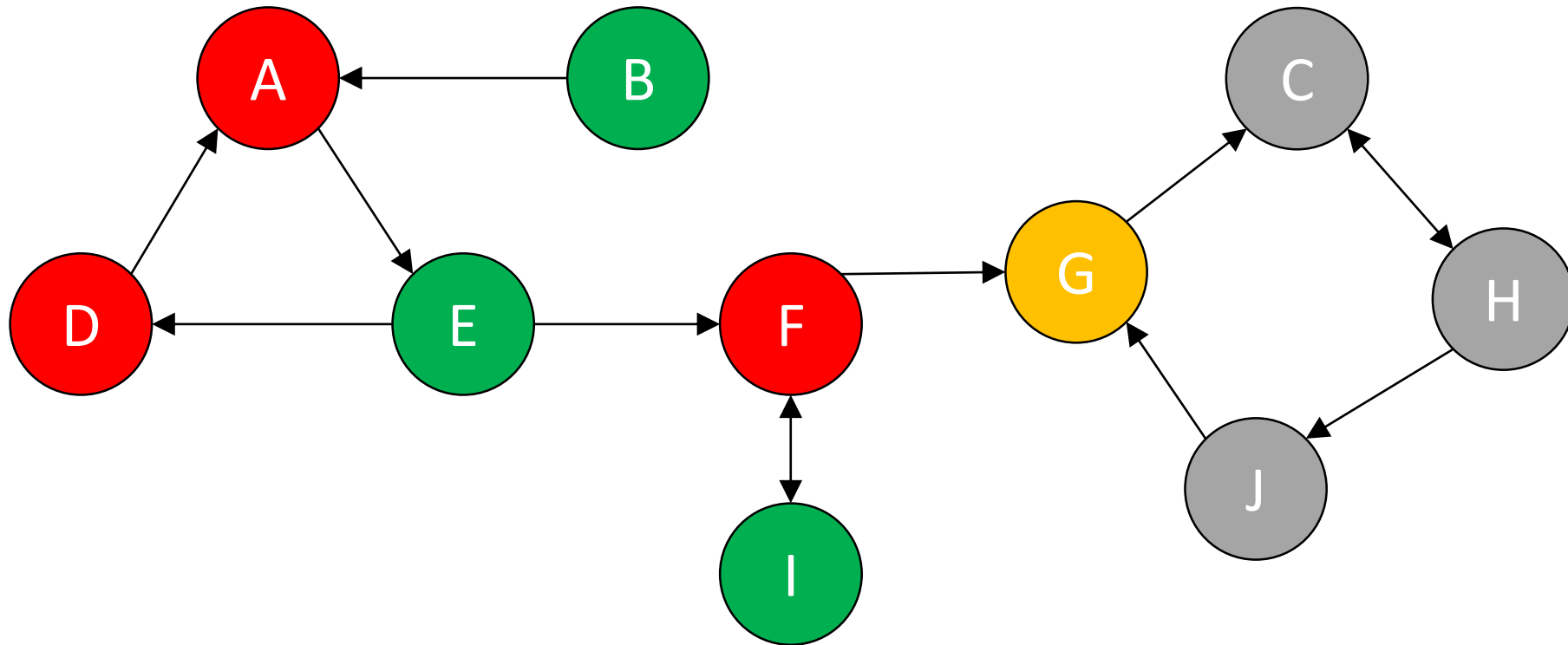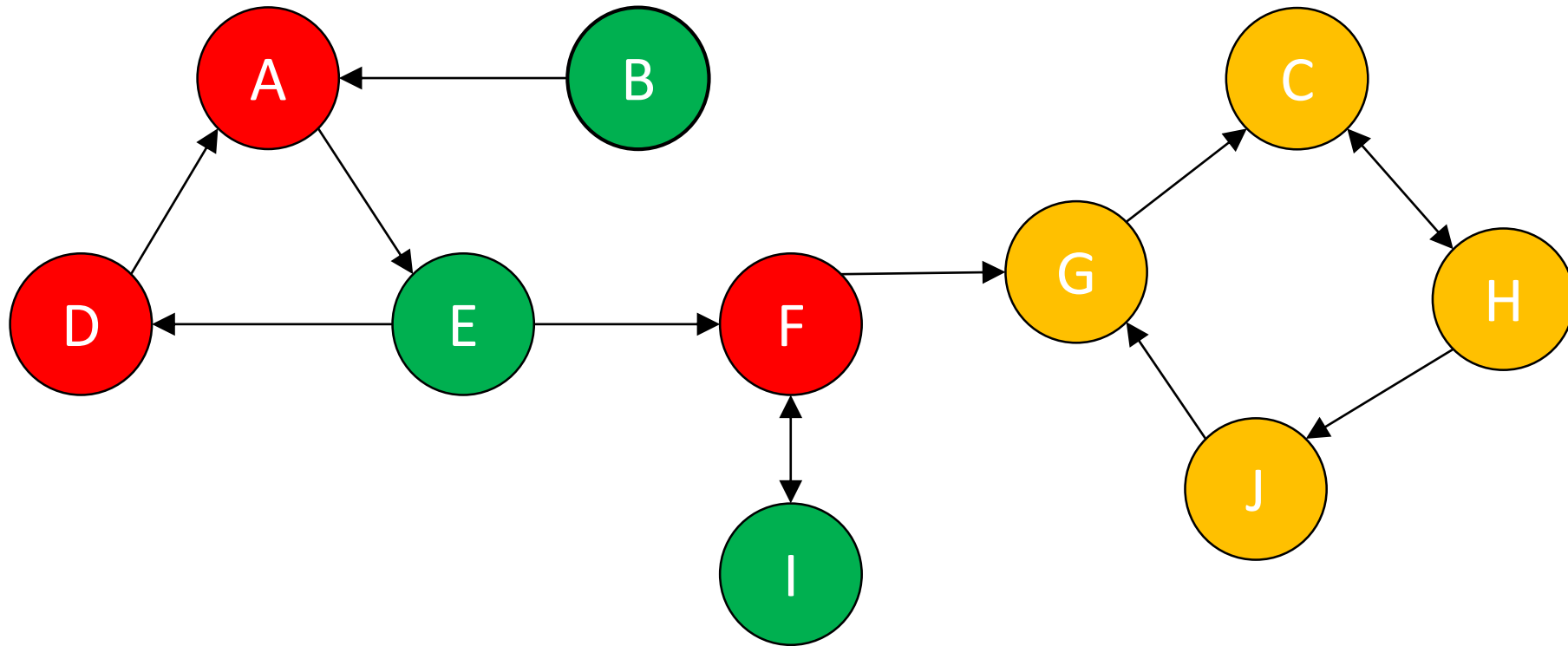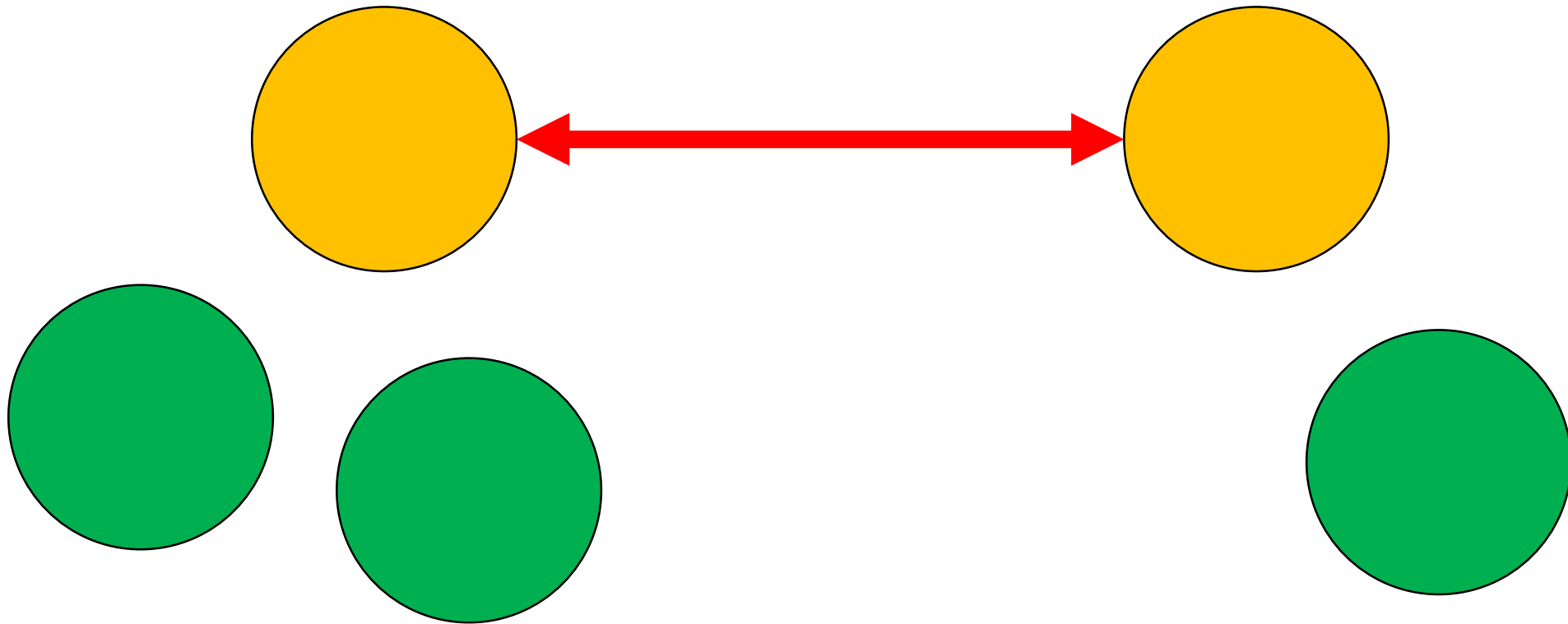
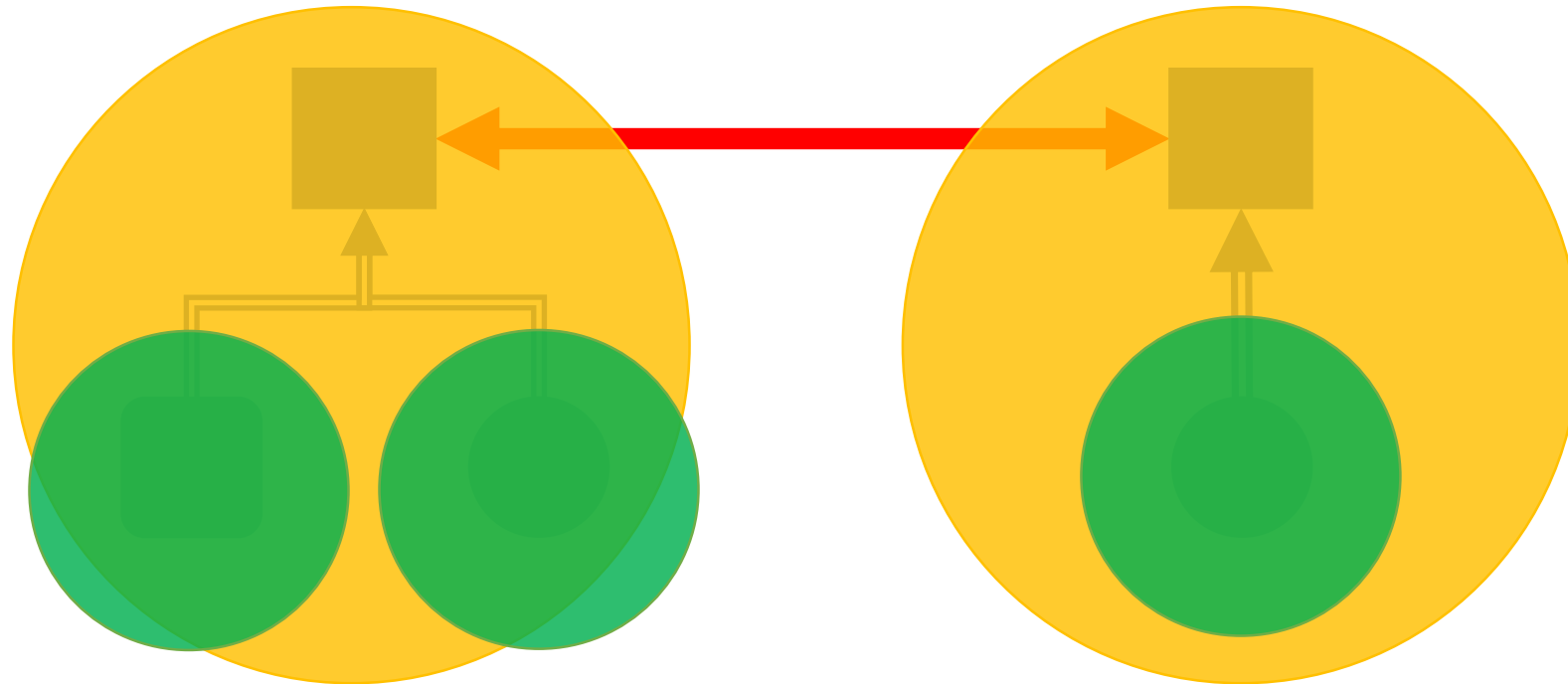# Which are the grounded labellings?

Which are the grounded labellings?

Which are the grounded labellings?

Statement status (grounded)

Statement status (grounded)

Statement status (grounded)

https://pyarg.npai.science.uu.nl/

Argumentation

"A verbal, social, and rational activity aimed at convincing a reasonable critic of the **acceptability of a standpoint by putting forward** **a constellation of propositions** justifying or refuting the proposition expressed in the standpoint."

(F. H. Van Eemeren and R. Grootendorst, 2004)

Argumentation

Dialogue

↑

"A verbal, **social**, and rational activity aimed at convincing a reasonable critic of the **acceptability of a standpoint by putting forward** **a constellation of propositions** justifying or refuting the proposition expressed in the standpoint."

(F. H. Van Eemeren and R. Grootendorst, 2004)