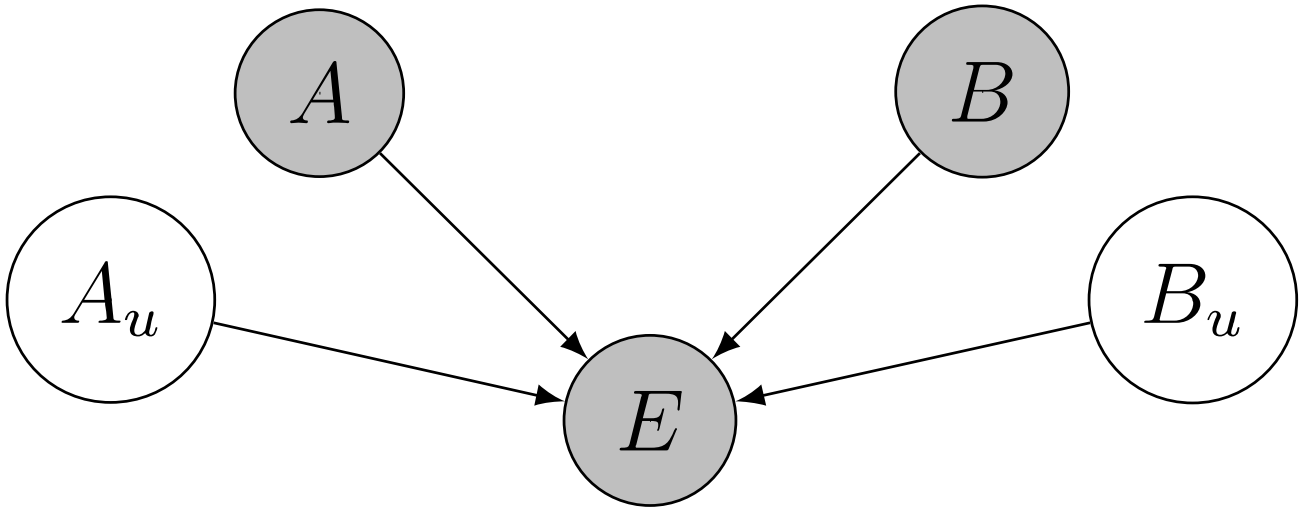
Counterfactual effect size model of an unreliable collider

Stephanie Droop and Neil Bramley

Situation



A and B are observed.

Each is accompanied by an unobserved noise variable. Only the rates are known.

For A to work, both A and Au must ==1.
For B to work, both B and Bu must ==1.

In the conjunctive case, all four nodes must == 1.

In the disjunctive case, either A and Au, or B and Bu, must ==1.

Next we run the CESM to attribute causal responsibility to each node, at different rate settings.

Rate settings

Summary of parameter settings for the 10 slides that follow:

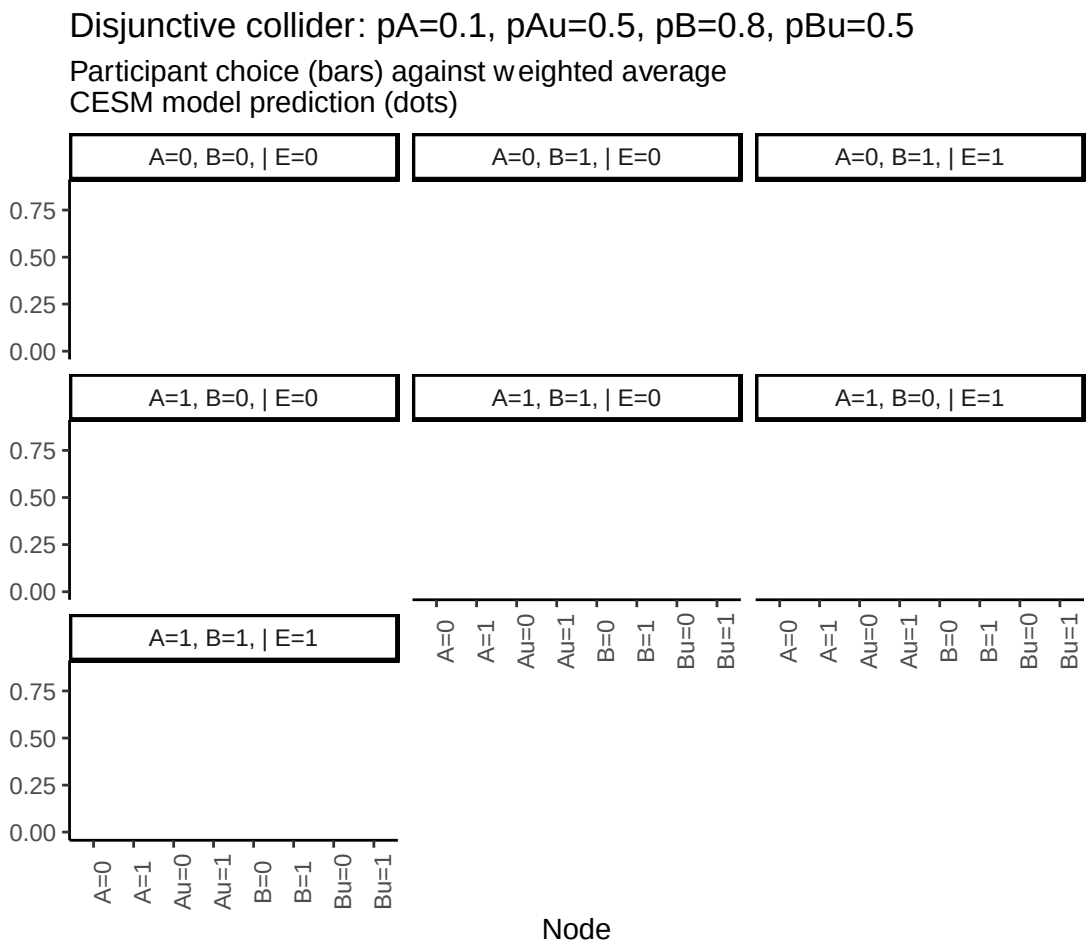
On pattern: pA=1, pAu=1, pB=1, pBu=1

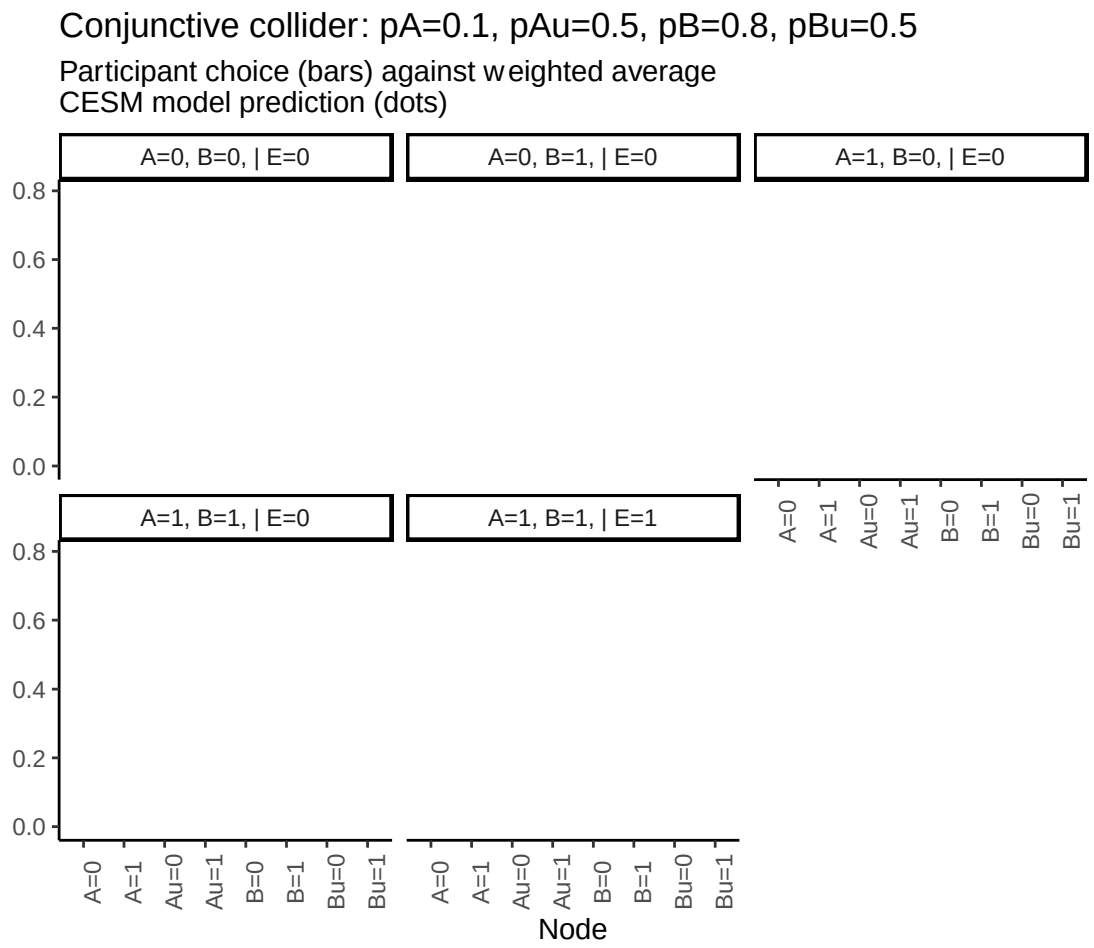
1. .1 .5 .8 .5

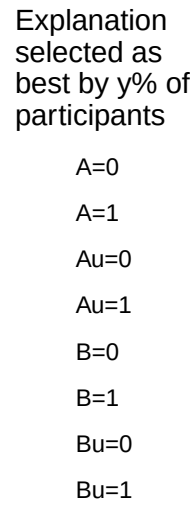
2. .5 .1 .5 .8

3. .1 .7 .8 .5

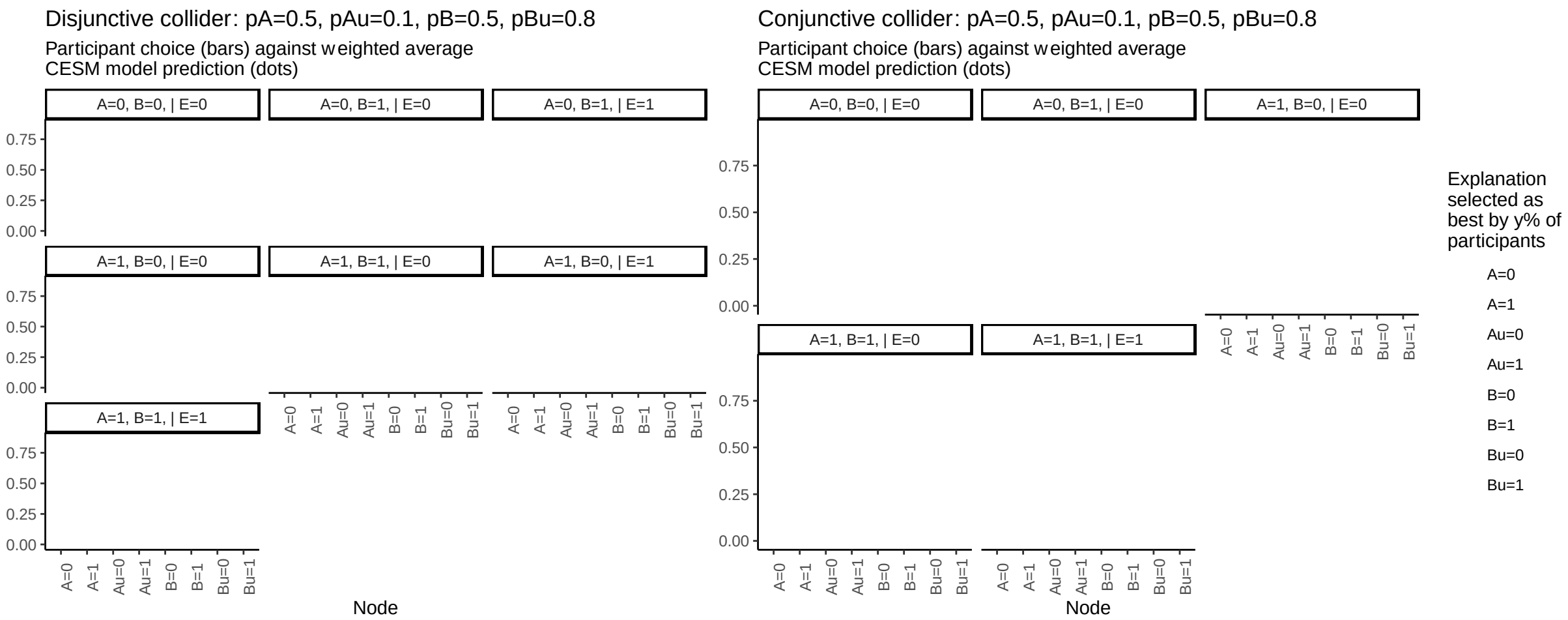
1. Probabilities 1, dis and con



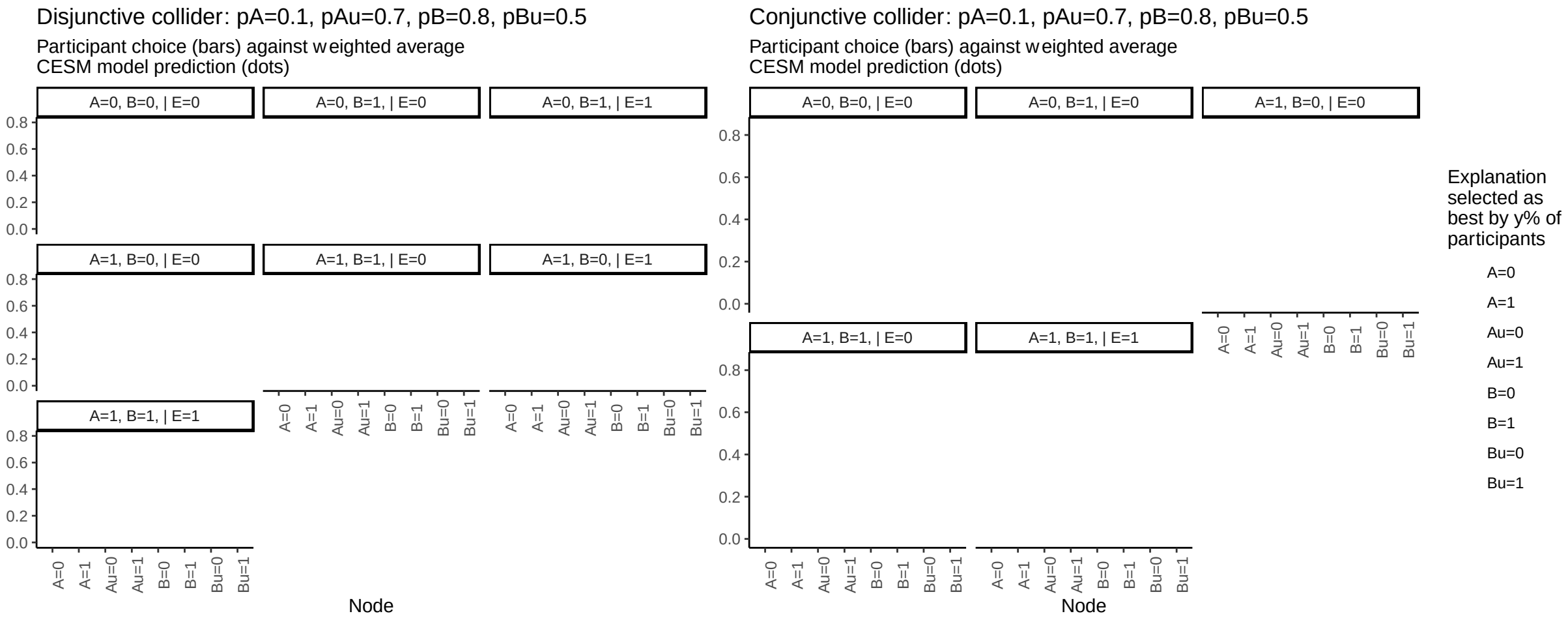




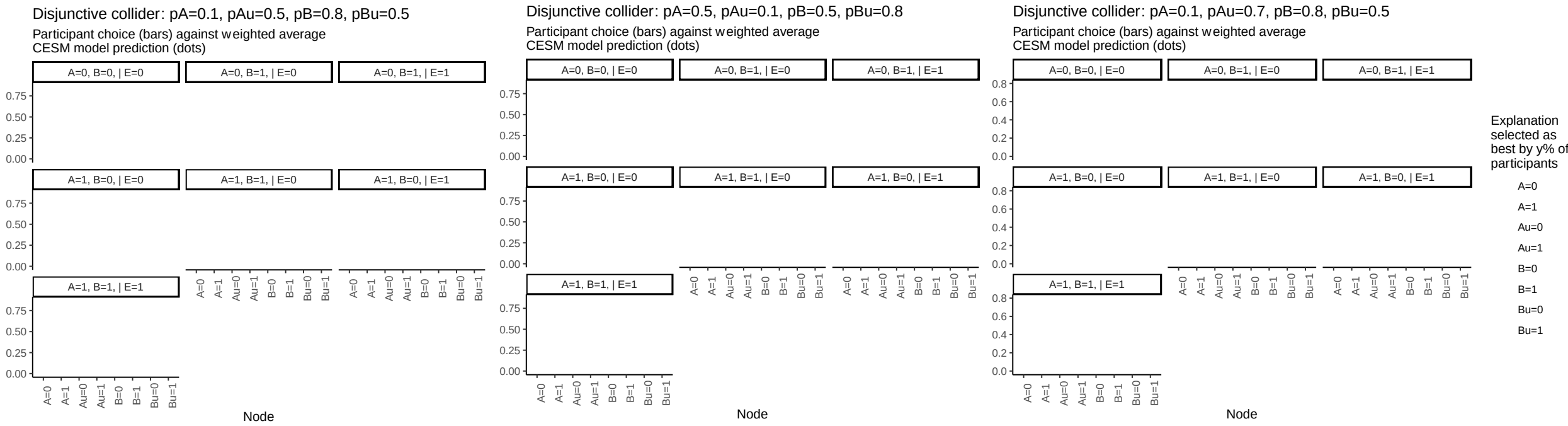
2. Probabilities 2, dis and con



3. Probabilities 3, dis and con



Disjunctive case: three different rate settings



Conjunctive case: three different rate settings