Formal Analysis: Special interest politics
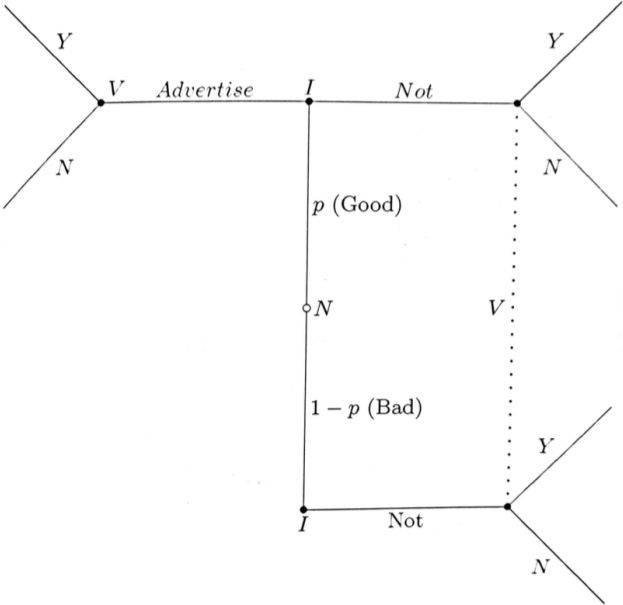
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Week 6 Session 2

Simple signaling game

Game form

Voter

The voter values: - electing a good type - electing a politician who is not encumbered by promises to special interests

Voter payoffs: - $\frac{1}{2}\theta$ from electing the challenger - $\theta - a\phi$ from electing a good incumbent - $-a\phi$ from electing a bad incumbent where $a \in \{0, 1\}$ indicates whether the candidate advertised

Also, voter's payoff from electing the challenger augmented by $\epsilon \sim F(\epsilon)$, which is "strictly increasing on the real number line"

Incumbent

- knows own type
- faces a choice of whether to advertise or not
- wants to be elected
- does not want to advertise (all else equal).

Separating and pooling equilibria

What is a **separating equilibrium** in this context?

What is a **pooling equilibrium** in this context?

Let's work out conditions for each.

Process

- Denote by $\mu(a)$ the probability that the incumbent is good as a function of the advertising decision $a \in \{0, 1\}$.
- Write down the conditions under which the voter votes for the incumbent rather than the challenger
- Check whether, in a separating equilibrium, the incumbent wants to deviate (what does deviation mean in this case?)
- Check whether, in a pooling equilibrium, the incumbent wants to deviate (what does deviation mean in this case?)