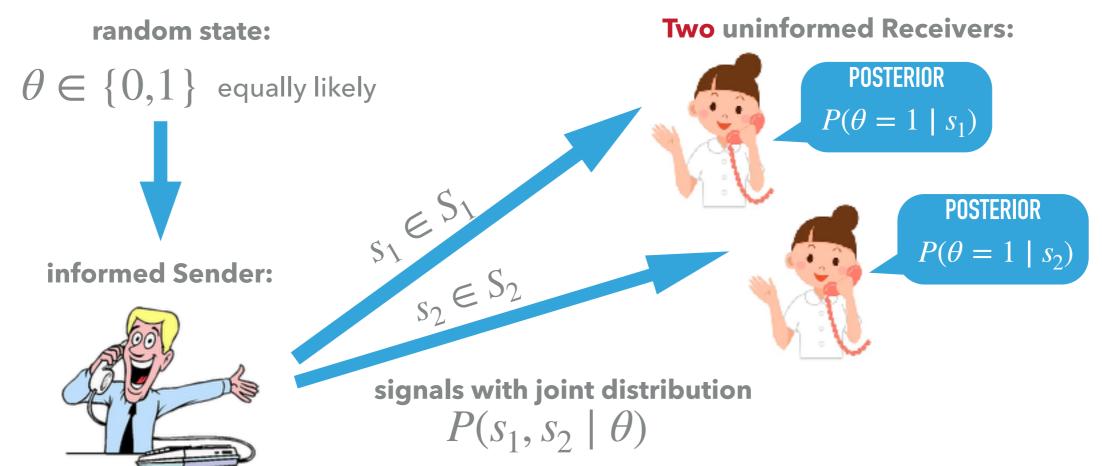
# ONE OPEN PROBLEM IN BAYESIAN Communication

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## **BAYESIAN COMMUNICATION WITH TWO RECEIVERS**



signalling policy  $P(s_1, s_2 \mid \theta) \longrightarrow$  joint distribution  $\mu$  of posteriors on the unit square. The set F of all feasible  $\mu$  is convex.

**Open question:** Are there non-atomic extreme points of F?

## DISCUSSION

### Why is it important?

Optimal policies in Bayesian persuasion

extreme points

### What is known?

#### **One receiver\*:**

- Extreme points have support of at most two
- Two signals are always enough for persuasion

\*Aumann, Maschler Repeated games with incomplete information, MIT, 1995

Kamenica, Gentzkow Bayesian persuasion, AER, 2011

#### **Two receivers\*\*:**

There are extreme points with countably-infinite support

\*\*Arieli, Babichenko, Sandomirskiy, Tamuz Feasible joint posterior beliefs, JPE (to appear)