

Ellsberg Paradox

- Allais' paradox: objective probability (risks)
- Independence Axiom in vN-M expected utility challenged
- Different problems arise when we consider subjective uncertainty
- Ellsberg's problem

Urn 1: 50 red balls, 50 black balls

Urn 2: 100 red or black balls, but proportion of each color is unknown.

One ball will be drawn from each urn, and the color inspected. First consider the ball drawn from Urn 1. Would you prefer (or be indifferent between)

\$100 if red from Urn 1

or

\$100 if black from Urn 1

Next consider the ball drawn from Urn 2. Would you prefer (or be indifferent between)

\$100 if red from Urn 2

\$100 if black from Urn 2

Consider a gamble defined on each event, so that you receive \$100 if the event occurs and \$0 if it doesn't.

Which of the following gambles would you prefer?

\$100 if red from Urn 1? or

\$100 if red from Urn 2?