SOCIAL INTERACTIONS & ECONOMIC OUTCOMES II

MPA 612: Economy, Society, and Public Policy

January 16, 2019

Fill out your reading report on Learning Suite

PLAN FOR TODAY

Game theory

Stags, hares, and prisoners

Preference falsification

Fixing collective action problems

GAME THEORY

WHY DO THESE UN-FUN GAMES?

"Economics is the study of how people interact with each other... in providing for their livelihoods"

We need formal language + an analytical framework for looking at those interactions

KEY VOCABULARY

Game — Model of strategic interaction

Zero-sum — Only one winner

Non-zero-sum — Both players can win; requires cooperation

Pareto efficiency — Outcome can't be improved without hurting another player

STRATEGIES

Nash equilibrium — Choice where no player has incentive to change

Dominant — Choice where you gain no matter what the other player does

Pure — Choice you make every time

Mixed — You gain or lose based on probabilities of other player's choices

INVISIBLE HAND

		Bala	
		Rice	Cassava
Anil	**Rice**	1, 3	2, 2
	Cassava	4, 4	3, 1

Non-zero-sum   One dominant equilibrium

BACH OR STRAVINSKY

		Friend 2	
		Chinese	Italian
Friend 1	Chinese	2, 1	0, 0
	Italian	0, 0	1, 2

Non-zero-sum   Two equilibria   Mixed strategy

CHICKEN

		Racer 2	
		Keep going	**Swerve**
Racer 1	**Keep going**	**−100, −100**	**5, −5**
	Swerve	**−5, 5**	**0, 0**

Non-zero-sum   Two equilibria   Mixed strategy

PRISONER'S DILEMMA

		Bala	
		Magic bugs	Poison
Anil	**Magic bugs**	**3, 3**	**1, 4**
	Poison	**4, 1**	**2, 2**

Non-zero-sum   One dominant equilibrium   Not socially optimal!

STAGS, HARES, AND PRISONERS

PRISONER'S DILEMMA

		Bala	
		Magic bugs	Poison
Anil	Magic bugs	3, 3	1, 4
	Poison	4, 1	2, 2

COOPERATION IN PD LAND

Repetition + iteration

One-shot vs. repeated

Infinitization

Defect at t - 1

PD games underpredict voluntary cooperation

People cooperate even though the dominant strategy is always defect

STAG HUNT

		Bala	
		Hunt stag	Hunt hare
Anil	**Hunt stag**	**10, 10**	**0, 2**
	Hunt hare	**2, 0**	**2, 2**

Non-zero-sum Two pure equilibria Not socially optimal!

Mixed strategy Not Pareto optimal

COOPERATION IN STAG HUNT LAND

The payoffs for cooperation are greater than the payoffs for defection

There's still an incentive to defect

BETTER MODEL
OF SOCIAL DILEMMAS

Climate change   Arriving on time

Real estate agents

Points in soccer tournaments

Negative political campaigns

PREFERENCE FALSIFICATION

EVERYONE LOVES THE DICTAOR

THREE COMPONENTS OF UTILITY

Intrinsic

We like what we like because we just do

Reputational

Our happiness is determined by what other people think

Expressive

Distance between intrinsic and reputational (cognitive dissonance)

FALSIFICATION

Someone finds intrinsic utility in some opinion

They get reputational utility from having the opposite public opinion

They lie about their public preferences

Unless they have high expressive utility—then they speak out

AAAAAAAHHHHHHHHHHHH!!!

**Public opinion =
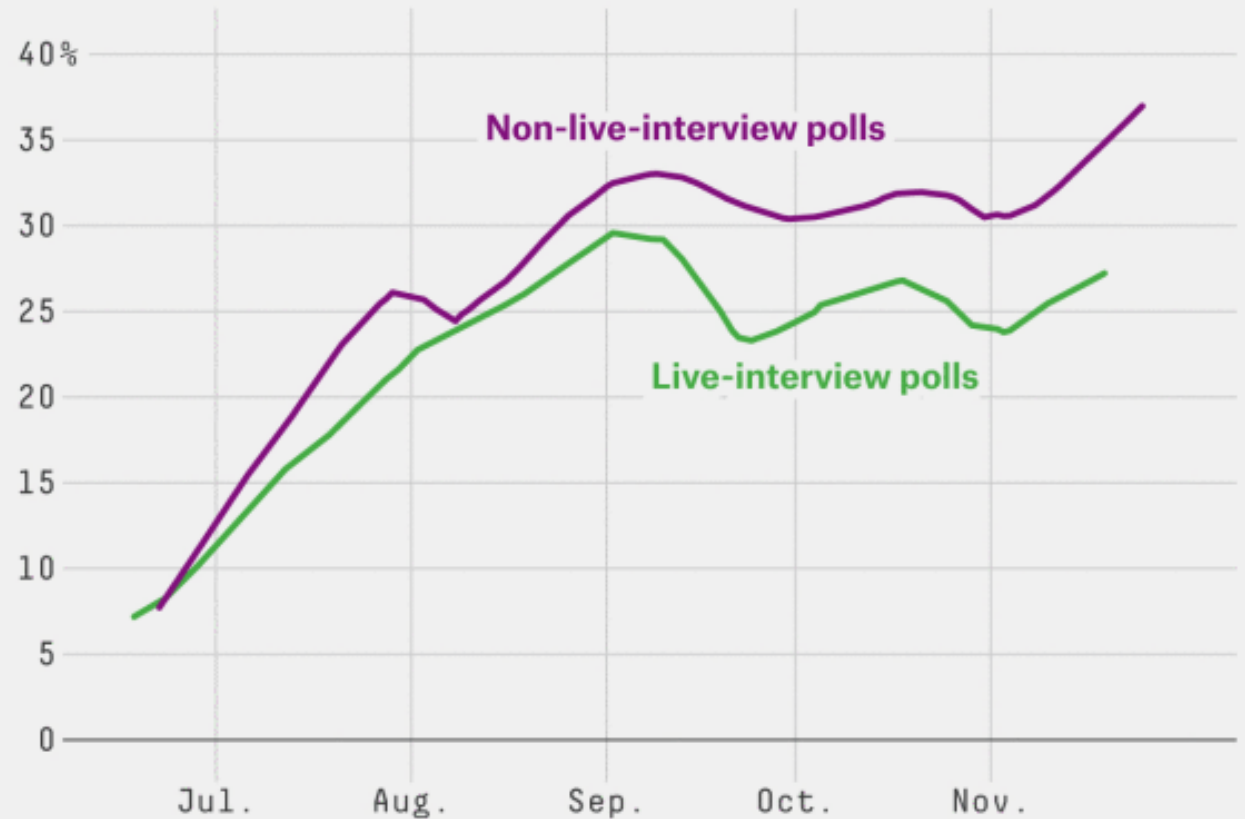the sum of everyone's
fake public preferences**

SOCIAL DESIRABILITY BIAS

Bradley effect

Trump Does Better In Non-Live National Polls
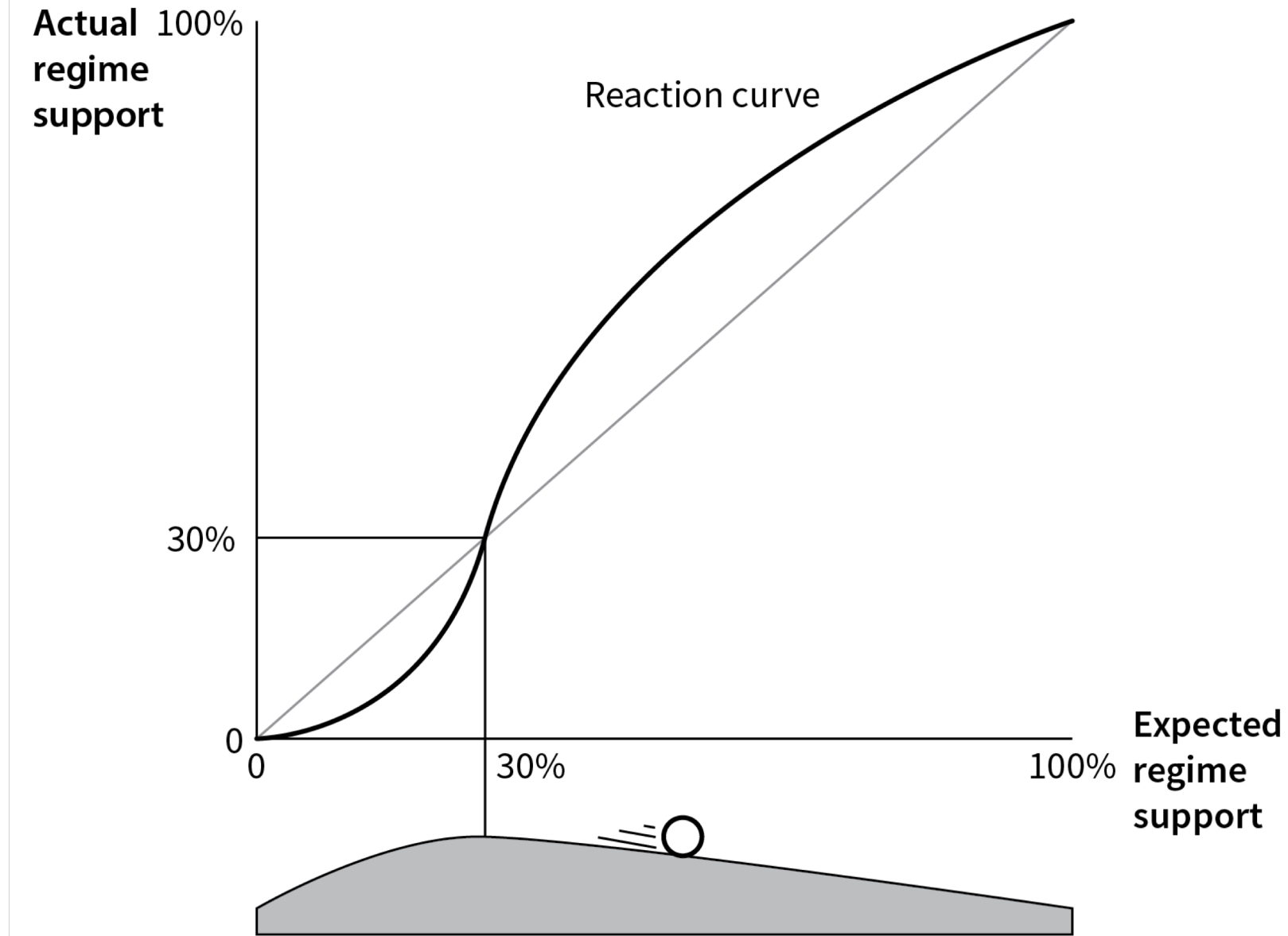Loess-smoothed 2015 polling average among Republicans

Non-live-interview polls

Live-interview polls

FIVETHIRTYEIGHT

SOURCE: HUFFPOST POLLSTER

UPWARD REVISION

If you believe that 100% of the country supports the regime, you'll publicly support the regime, even if you only support it 40%

Everyone revises their public opinion upward and it looks like the whole country loves the regime
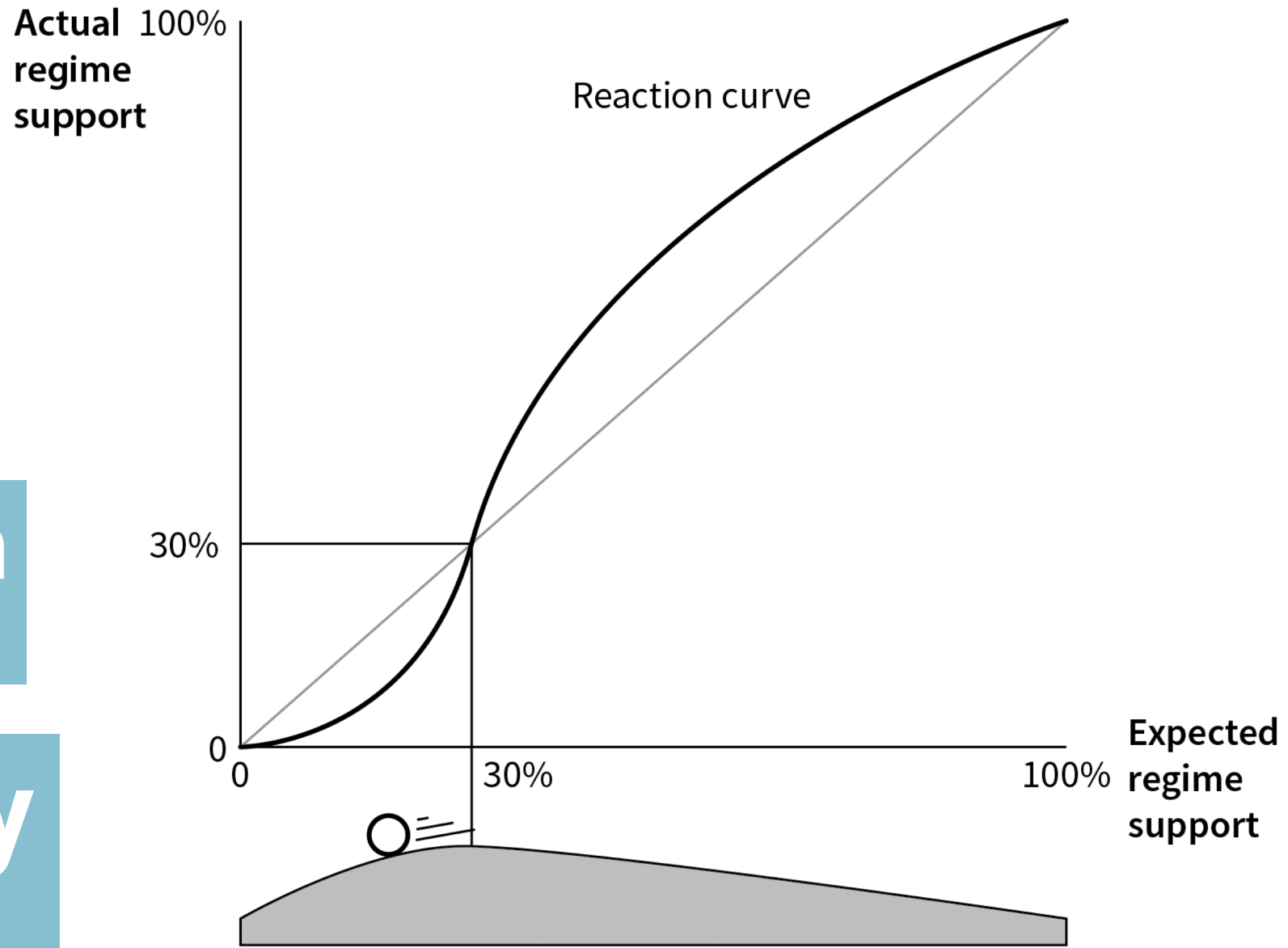
FIXING COLLECTIVE ACTION PROBLEMS

WHAT STOPS US FROM COOPERATING?

Uneven payoffs   Lack of assurance

Preference falsification

Dishonesty   Selfishness

These are all rational things that utility-maximizing people do!

HOW DO WE FIX THIS?

Altruism

Repetition and iteration

Infinitization

Punishment

Norms

Institutions