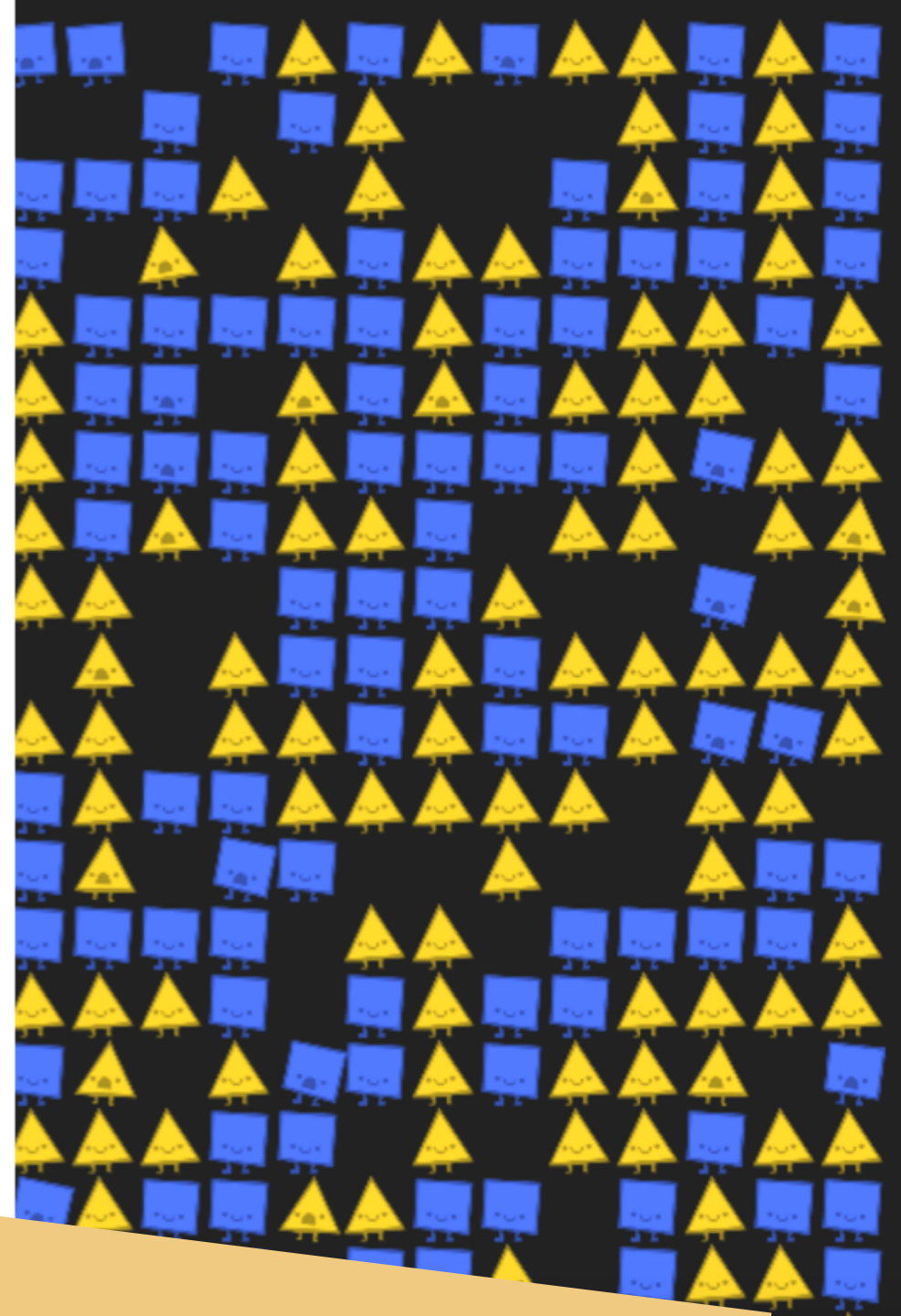


Social interactions and incentives I

MPA 612: Public Management Economics

January 26, 2018

Fill out your reading report on Learning Suite!



Plan for today

Indifference curves
and welfare

No man is an island

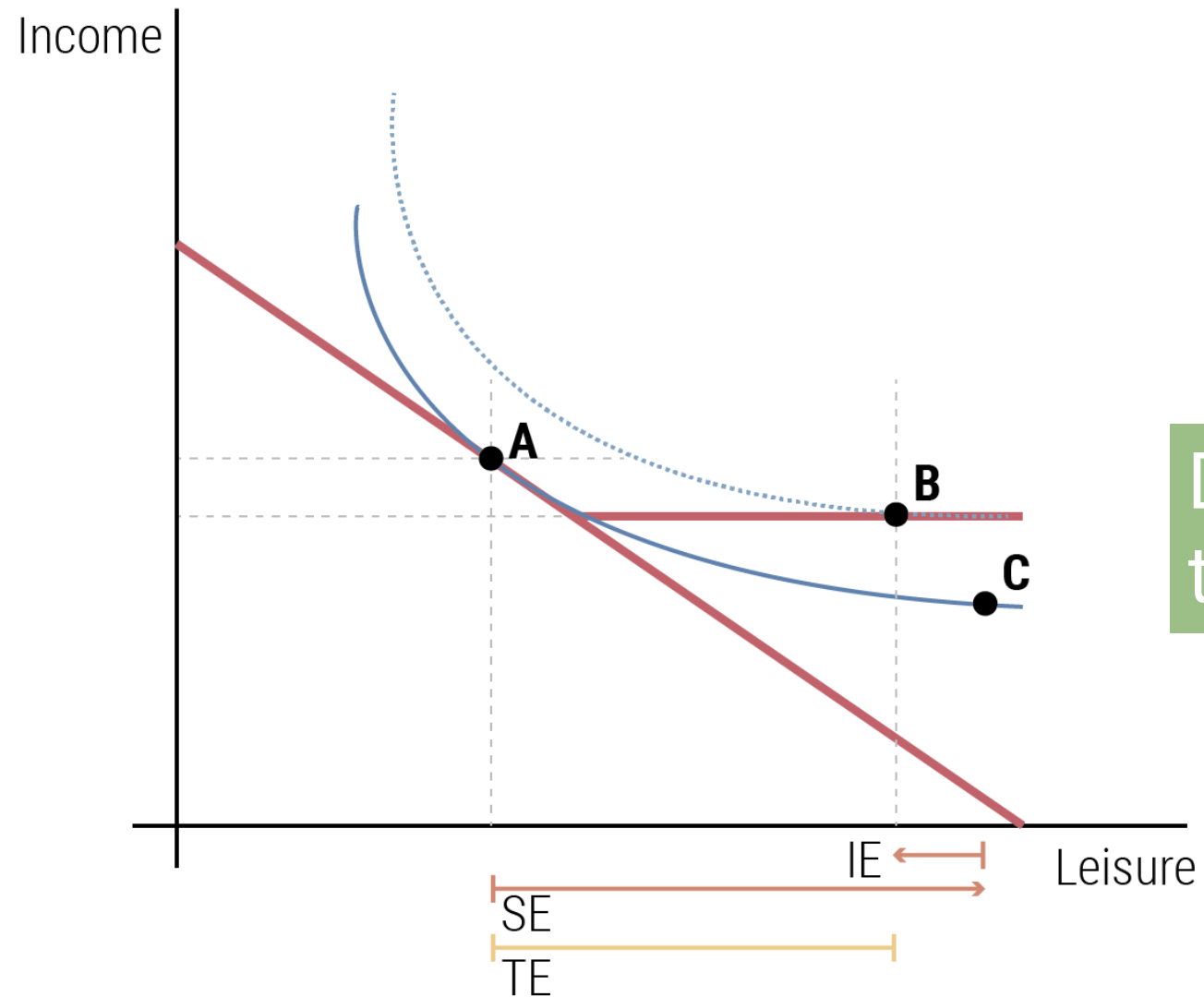
Game theory

Fixing collective action problems

Current events

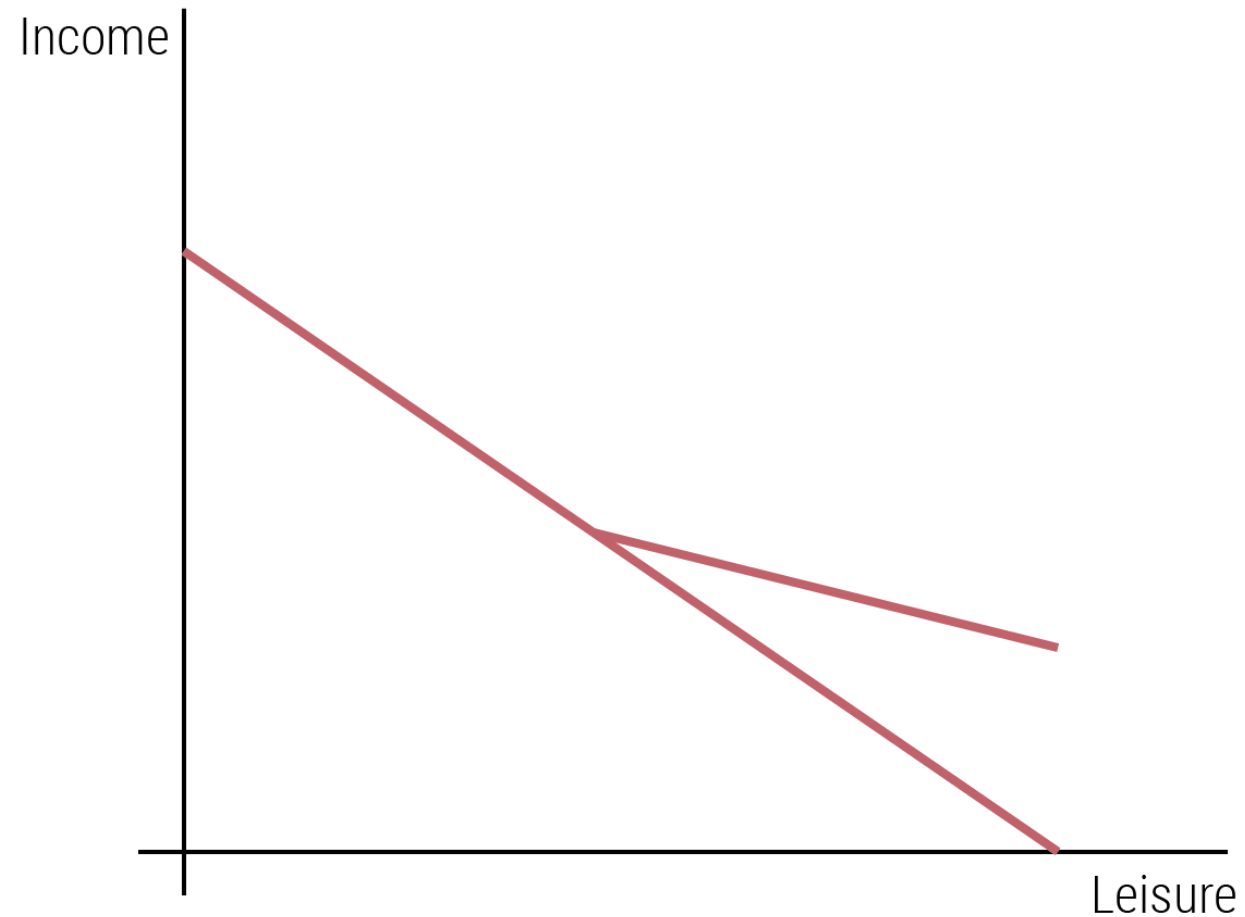
Indifference curves and welfare

Standard welfare



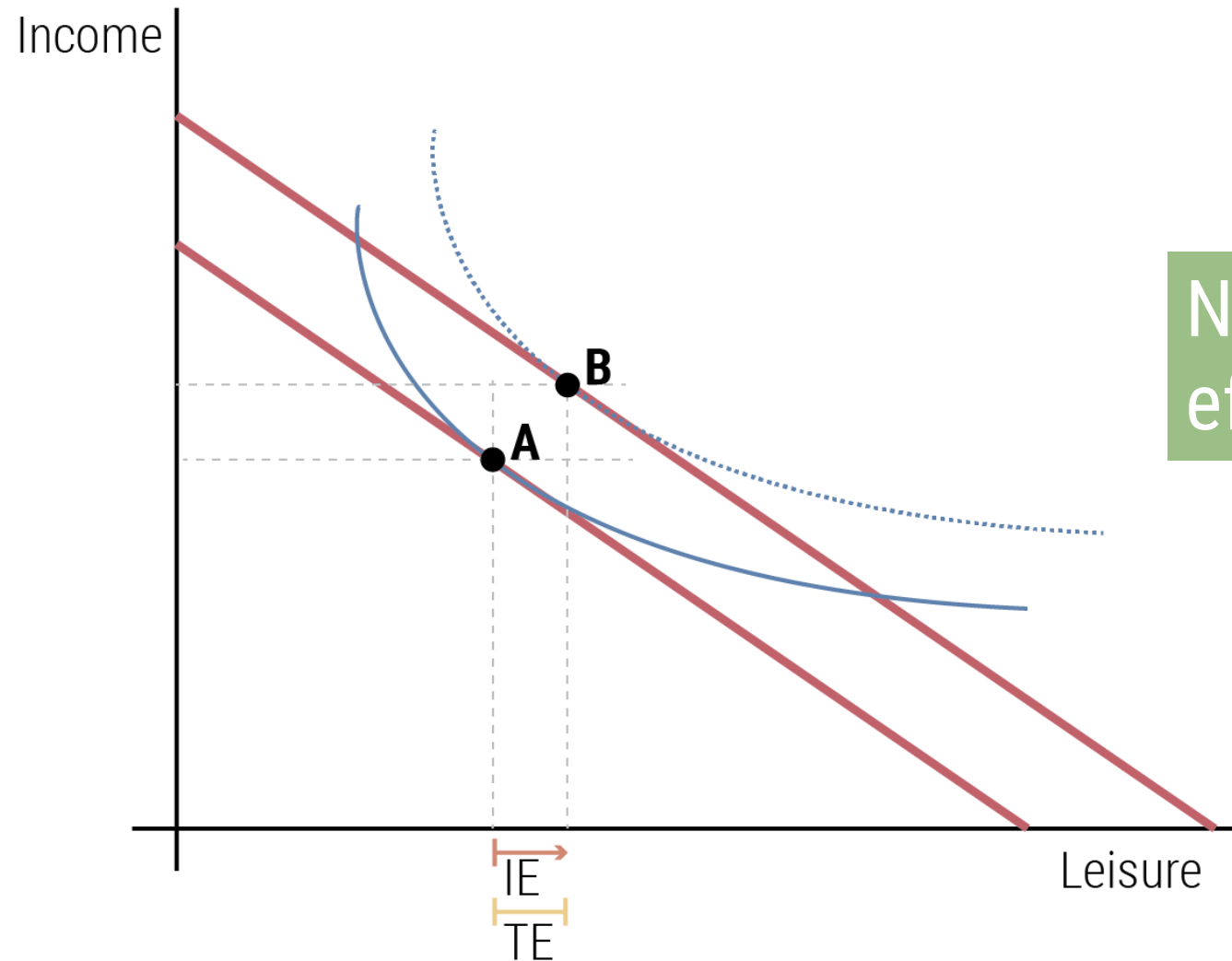
Disincentive
to work

Phased out welfare

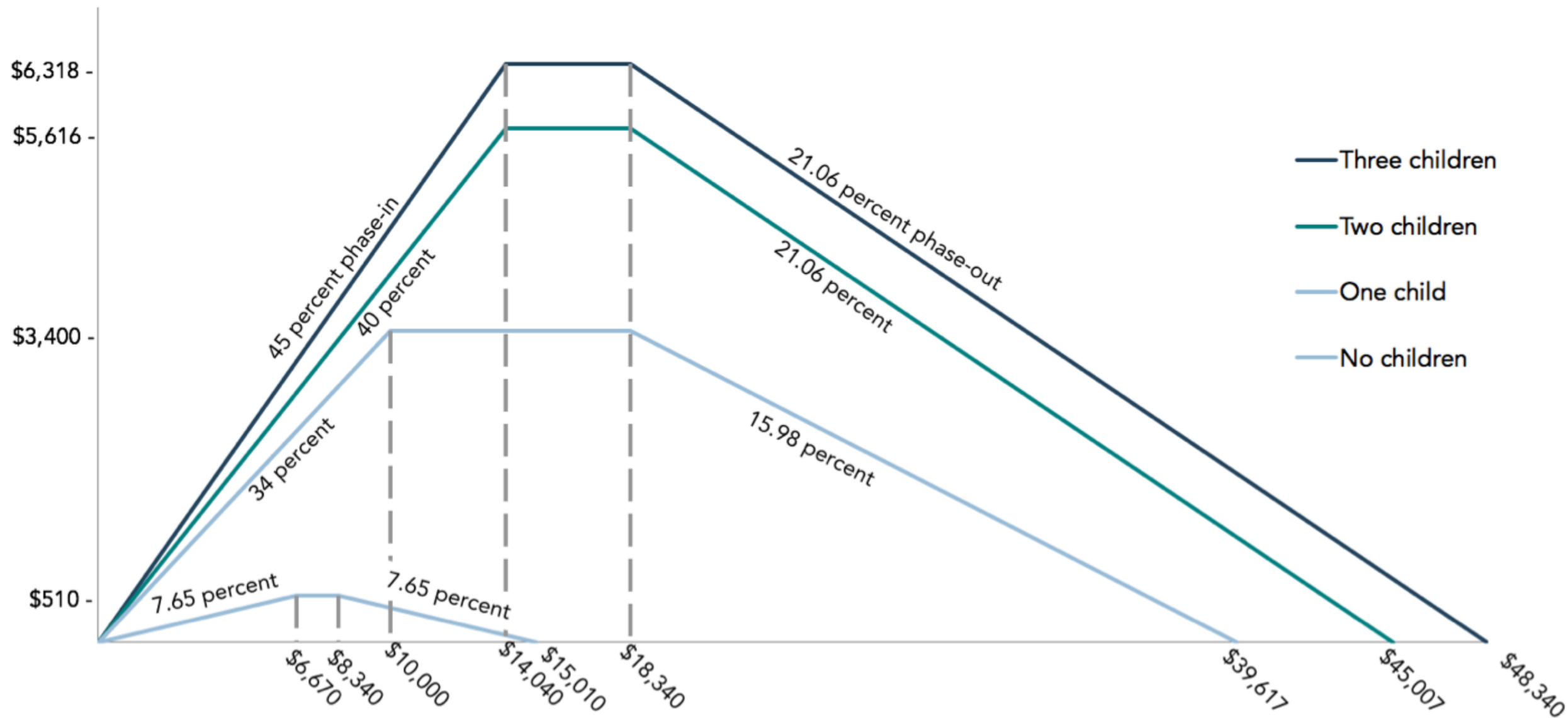


Disincentive
to work

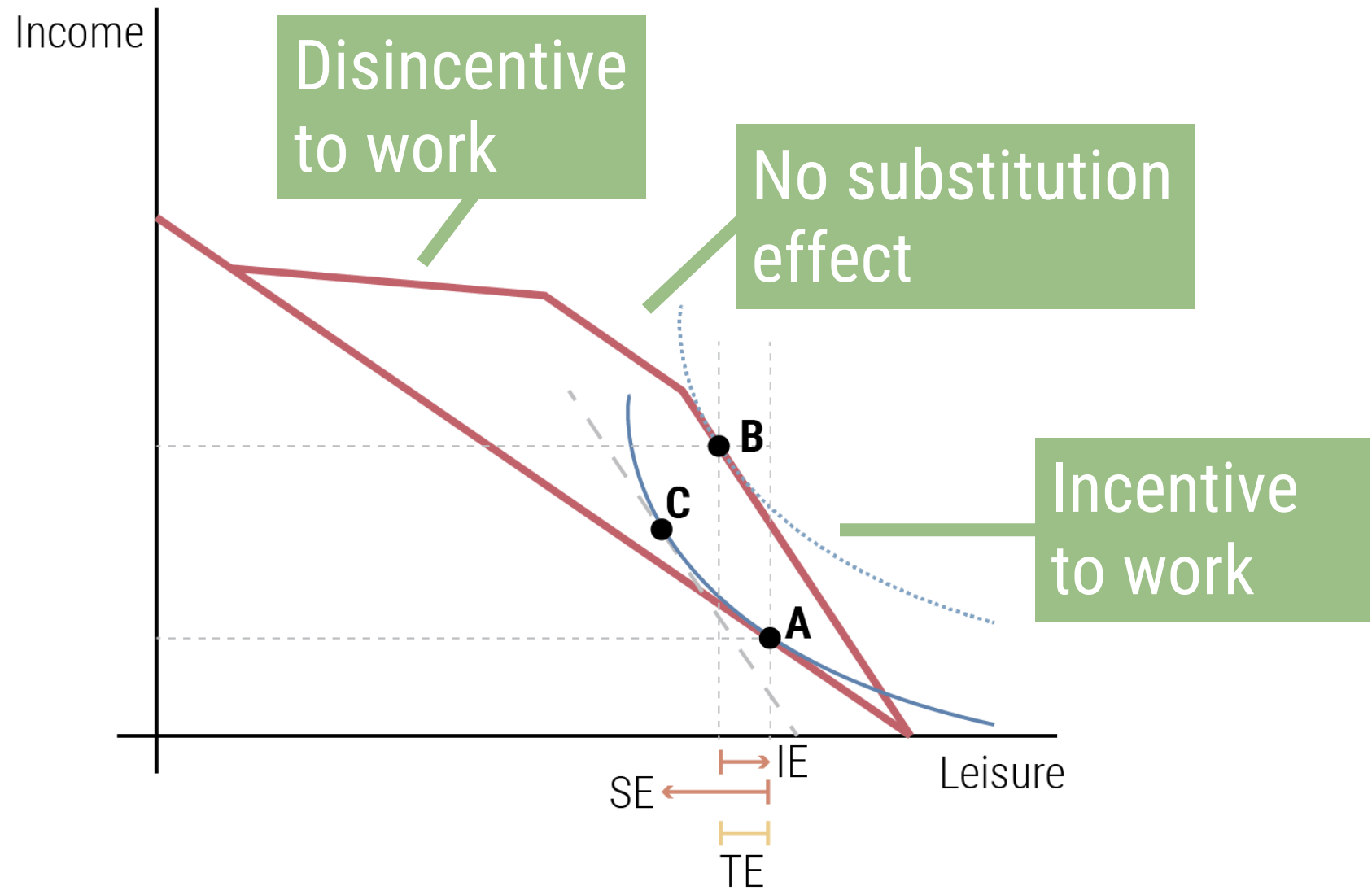
Universal basic income



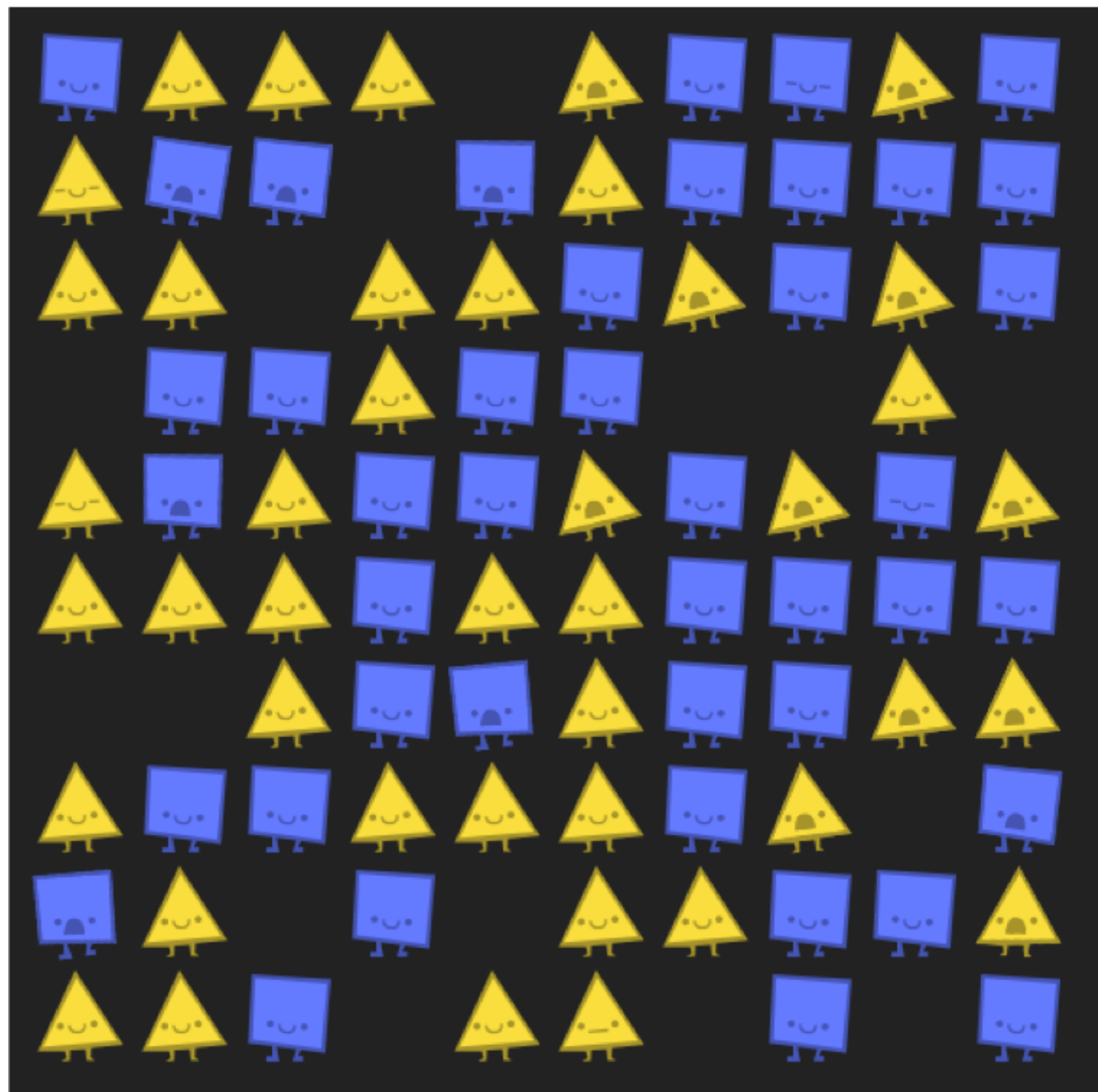
No substitution effect



Earned income tax credit (EITC)



No man is an island



Each shape likes having neighbors of different shapes

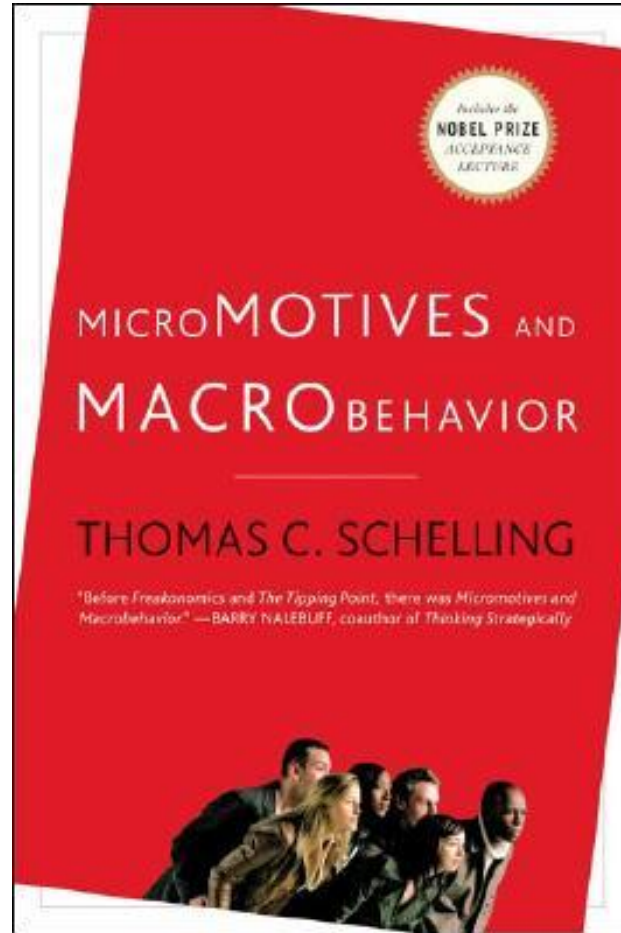
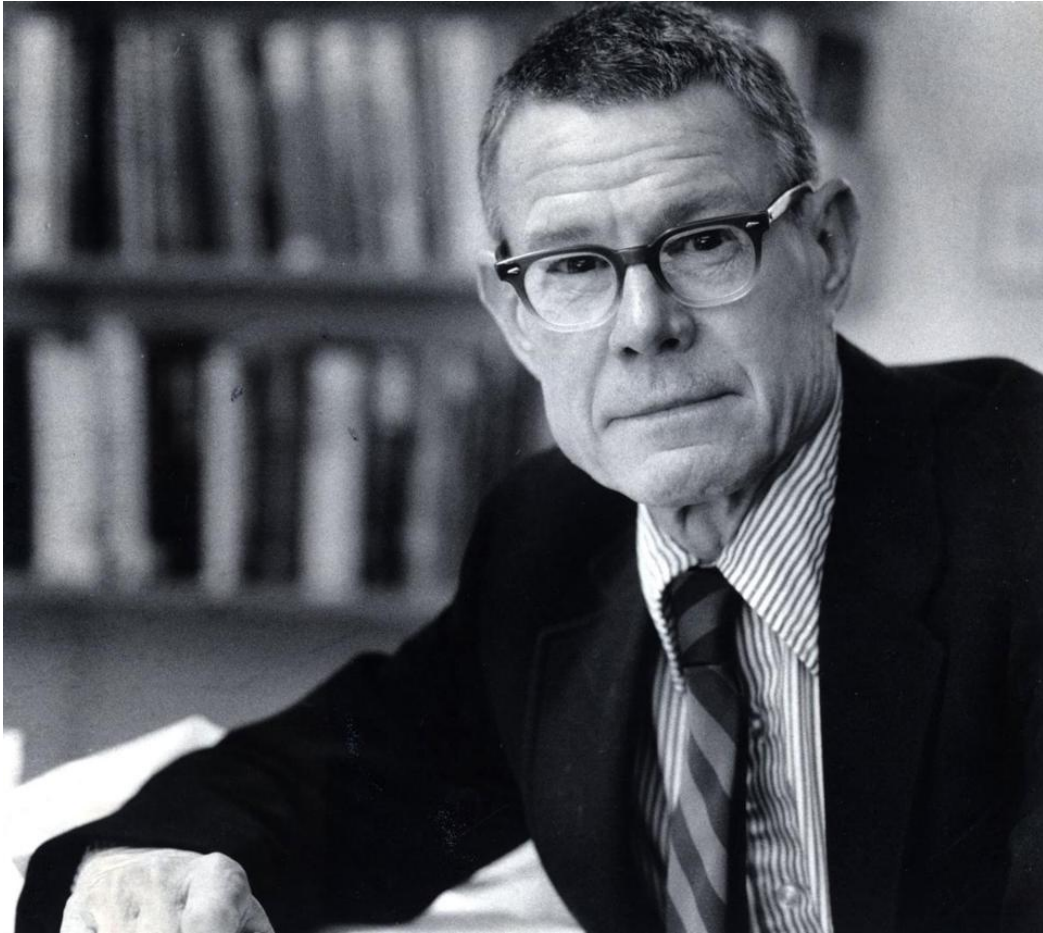
...as long as half of its neighbors are the same shape

Move shape to an empty square if they don't like the neighborhood



<http://ncase.me/polygons/>

Micromotives and macrobehavior



Perfectly rational
individual behavior can
create irrational and
inferior social outcomes

Social dilemma

Collective action problem

No man is an island,
entire of itself;
every man is a piece of the continent,
a part of the main.
If a clod be washed away by the sea,
Europe is the less,
as well as if a promontory were.
as well as if a manor of thy friend's
or of thine own were.
Any man's death diminishes me,
because I am involved in mankind;
and therefore never send to know for
whom the bell tolls;
it tolls for thee.

Tragedies of the commons

Public goods

First day of class

Fisheries

Common resources

Rubbernecking

Climate change

Antibiotic resistance

Game theory

Understanding how people interact

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

Battle of the sexes

		Woman	
		Boxing	Opera
Man	Boxing	2, 1	0, 0
	Opera	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!

Fixing collective action problems

How do we ensure cooperation and reach socially optimal outcomes?

Altruism

Repetition and iteration

Infinite iteration

Punishment

Norms

Institutions