

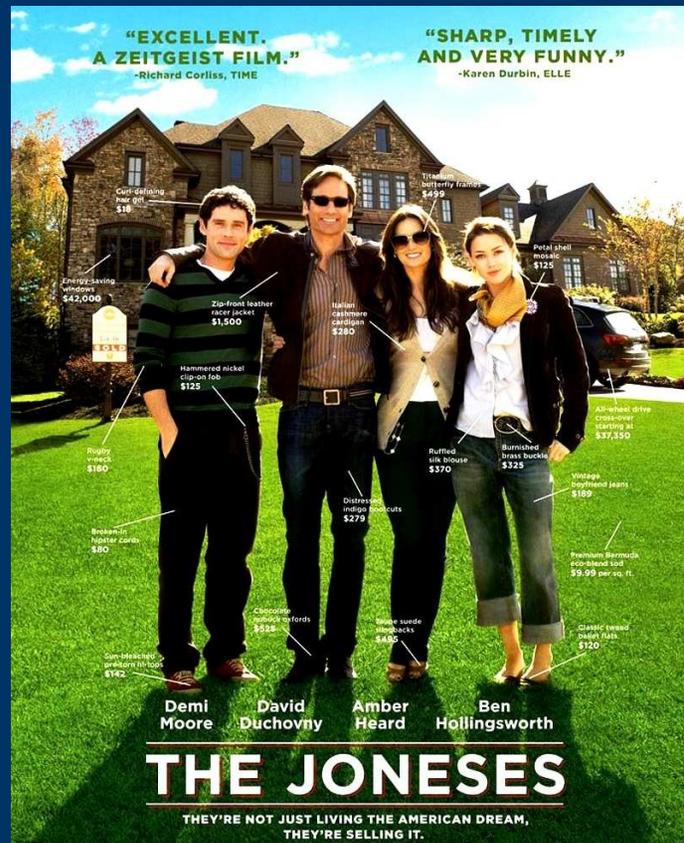
# Mechanisms of Peer Effects

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# Keeping up with the Joneses



# Peer Effects ... Everywhere?

- Angrist (2014), MIT Economics Professor, 70,000+ citations
  - “Like many in my cohort, I smoked marijuana repeatedly throughout the day in high school. Most of my friends smoked a lot of dope too. Ten years later, my youngest brother went to the same high school, but he didn't smoke nearly as much dope as my friends and I did, something that worried me at the time. My brother's friends also smoked little. In fact, by the time my brother went to our high school, nobody smoked as much dope as we did in 1975. That must be why my brother smoked so much less than me.”
- Obesity is “contagious” among friends ...
  - ... but so are acne, headaches, and height!



# Identifying Causal Peer Effects

- Clean identification is very tricky
  - Observational data is often not good enough
    - Many studies have dubious conclusions
      - Obesity study
      - Airplane food ordering patterns
    - Need exogenous variation
- Studies on Dartmouth undergrads, HBS MBAs
  - Random assignment to dorm rooms or class sections
  - Significant effect on academic achievement, entrepreneurship decision, corporate acquisitions



# Identifying Mechanisms of Peer Effects

- Several sources could be responsible for causal peer effect
  - Social Learning: change in beliefs
  - Social Utility: direct effect on utility
- Clean identification is even trickier now
  - Decouple revealed preference (social learning) from possession (social utility)
  - Field experiment



# A New Investment Opportunity



- Suppose I observe my financially savvy friend investing in a hedge fund
- Social Learning
  - I know little about the quality of the hedge fund, but I infer that it might be a good investment.
- Social Utility
  - I fear financially falling behind my friend or I want to keep up my expenditure pattern relative to her



# Field Experiment in Brazil

- Implement a high-stakes field experiment that allows to
  - Identify overall peer effects in the purchase of a new financial asset,
  - Disentangle social learning from social utility
- Key ingredient
  - Lottery to determine whether individuals who choose to purchase an asset are actually allowed to make the investment
  - Lottery decouples revealed preference from possession



Related pairs of clients are identified; randomly assigned to roles of investor 1 and investor 2

Investor 1 given opportunity to purchase asset without any information about investor 2's choice.

Some decline.

Some accept.

LOTTERY TO RECEIVE ASSET

Some do not receive the asset.

Some receive the asset.

LOTTERY TO RECEIVE INFORMATION

LOTTERY TO RECEIVE INFORMATION

**CONDITION 2:**  
Some investor 2's informed of choice and outcome: investor 1 wanted the asset, but was unable to purchase it.

**CONDITION 1:**  
Some investor 2's (whose associated investor 1's wanted the asset) receive no information about investor 1

**CONDITION 3:**  
Some investor 2's informed of choice and outcome: investor 1 wanted the asset, and was able to purchase it.



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# Results

- Purchase Rates
  - 42.3% in control condition
  - 70.8% in learning only condition
  - 92.8% in learning plus possession condition
- Amount Invested
  - R\$ 884.60 in control
  - R\$ 1,833.39 in learning only
  - R\$ 3,517.90 in learning plus possession



# Financial Sophistication



# Financial Sophistication

- More to learn from financially sophisticated investors
  - Significant social learning effect!
- Less to learn from financially unsophisticated investors
  - No significant social learning effect!
- More to learn from others if you are financially unsophisticated
  - Significant social learning effect!



# Things I learned from writing this paper

- Your first idea is probably not the best one ...
  - ... but that doesn't mean that the paper is not worthwhile pursuing ...
  - ... and it's okay to fail (and failing fast is the best).
- Having the right set of co-authors helps tremendously ...
  - ... especially if you have complementary skills.
- Don't be afraid to get negative feedback.
- Never give up ...
  - ... and keep submitting.

