

Croyances Collectives : Organisations, Marchés Financiers et Idéologies Politiques

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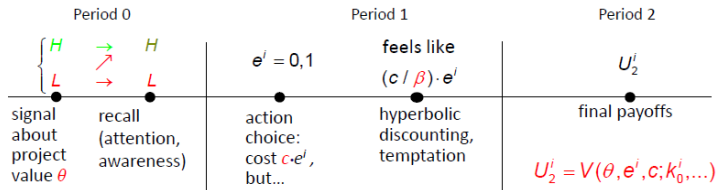
(Basé en partie sur des travaux joints avec Jean Tirole)

Summary of Lecture I

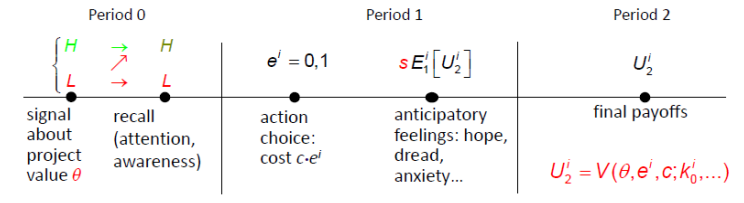
- Individual beliefs about **self** (health, intelligence, beauty, honesty) and **environment** (future returns on assets, business performance, deservedness of others), and how they respond to information, reflect a variable mix of:
 - ▶ **Standard Bayesian rationality**
though often with cognitive limits: biases and heuristics
 - ▶ **Psychological needs / mechanisms:**
 - Demand side: arise in response to functional or affective needs
 - Supply side: reflect workings of attention, interpretation, memory processes
- The factors can be **modeled, measured**, experimentally varied
- **Combination of methods:** surveys, experiments in lab and field, neuro, mathematical modeling, empirical studies on large datasets⇒
- Evidence shows that beliefs are **neither** fully responsive to data, **nor** rigidly fixed by either cognitive heuristics or social determinants. Instead, model...

Summary: simple unifying framework

1. Self-Motivation and Belief Distortion



2. Anticipatory Utility and Belief Distortion



- Integrates **economic** variables (e, c, θ), **psychological** variables both cognitive and affective ($\beta, s, E_1[\theta], H \rightarrow L, \dots$), **social variables** (k_0^i , others' actions e^j)

Summary: main findings

- Individual beliefs are **sensitive to tradeoffs** between the costs and benefits (both economic and psychological) of accuracy vs. “desirability”:
 - ▶ A priori aversion to information: not wanting to know
 - ▶ Asymmetric updating and responses to desirable and undesirable news
 - ▶ Asymmetric recall of favorable and unfavorable signals
 - ▶ Stakes-dependence: belief distortions vary predictably with endowments, strategic interests, opportunities
- **Motivated cognition** has important consequences for real-world behaviors:
 - ▶ Health, business decisions, investments, effort, ethics
- **Lecture II: Collective Beliefs**
 - 1 Realism and wishful thinking in “small” groups: firms, teams, governments, public-goods providers, cults
 - 2 “Irrational Exuberance” in asset markets: finance, housing
 - 3 Political Ideologies: statism vs. laissez-faire, social-mobility beliefs and redistribution, extremism

I - Social Cognition - Organizational Beliefs

- “The Columbia accident is an unfortunate illustration of how NASA’s strong cultural bias and its optimistic organizational thinking undermined effective decision-making.” (Columbia Accident Investigation Board, 2003)
- “Merrill color-blind in a sea of red flags” (NYT, May 2008)
- “General Motors’ saga was one of decline and denial” (WSJ, June 2009)
- “The audit found that [the SEC’s Division of] Trading and Markets became aware of numerous potential red flags prior to Bear Stearns’ collapse ... but did not take actions to limit these risk factors.” (Inspector General’s Report, 2008)
- Shiller (2005): “new economic era thinking”. Suspension of disbelief: housing prices (households), default rates (lenders, regulators), assets risk and ability to get them off balance sheet (banks). Madoff investors... Before: Internet bubble,...etc. Recurrent patterns.
- Reinhart-Rogoff (2009): “The ability of governments and investors to delude themselves, giving rise to periodic bouts of euphoria that usually end in tears, seems to have remained a constant [since 1800]

“Groupthink: Collective Delusions in Organizations and Markets”

- (Bénabou 2013)

□ Period 0: information and beliefs

- Common signal about expected value of the project
- Process information: acknowledge/retain, or look away/misread/forget

□ Period 1: actions... and emotions

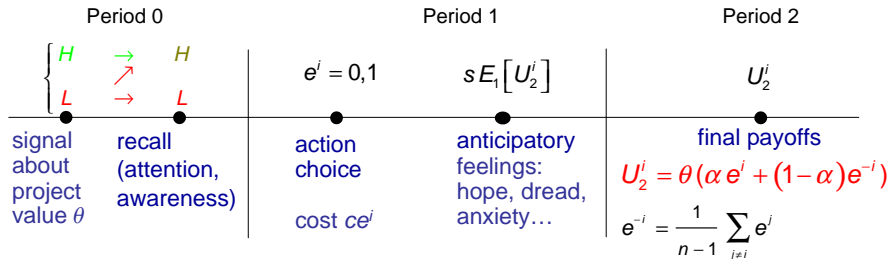
- Invest or not in common project: firm, team, policy
- Anticipatory feelings: hope, fear, anxiety from future prospects

□ Period 2: final payoffs

- Depends (linearly) on own and others' actions
- Affected by overall project value: uncertain

I - Organizational cultures

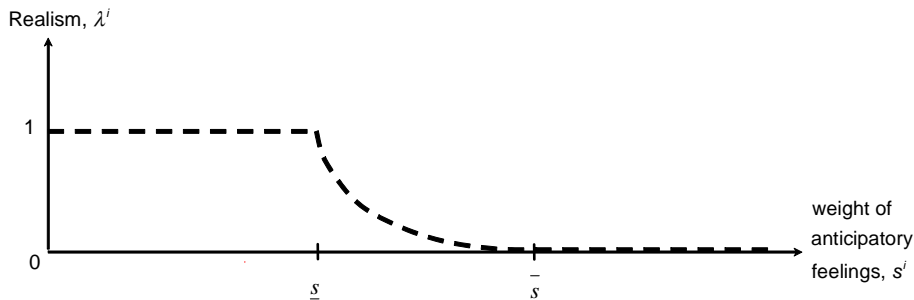
- What **interaction structures** lead (mis)beliefs to **spread**, or on the contrary to dampen across agents?
 - ▶ Motivated beliefs arising here from anticipatory feelings (but more general)



- Simplest organizational structure: common **degree of codependency** $1 - \alpha$
 - ▶ Can enrich: asymmetric roles, complementarities / substitutabilities
- Fixed stakes now **endogenous**: i will receive / suffer $\theta_\sigma(1 - \alpha)e_\sigma^{-i}$ from others in state $\sigma = H$ or L , no matter what he does

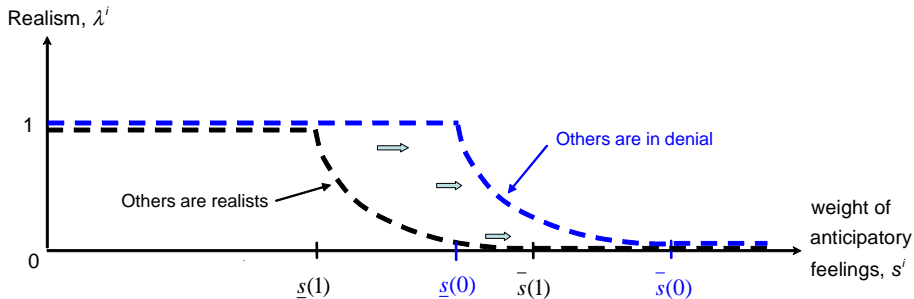
Review: responding to bad news with realism or denial

- λ^i : probability with which individual i 's recall / updating of L is accurate



- Individual trades off **costs** vs. **benefits** (hedonic, functional) of disregarding, rationalizing, not paying attention to bad news
- New, key question: **contagion of wishful thinking?**
 - ▶ How does tradeoff **depend on other agents'** degree of realism or denial?
- Analysis: game theory (dynamic, asymmetric information)... \Rightarrow key intuitions

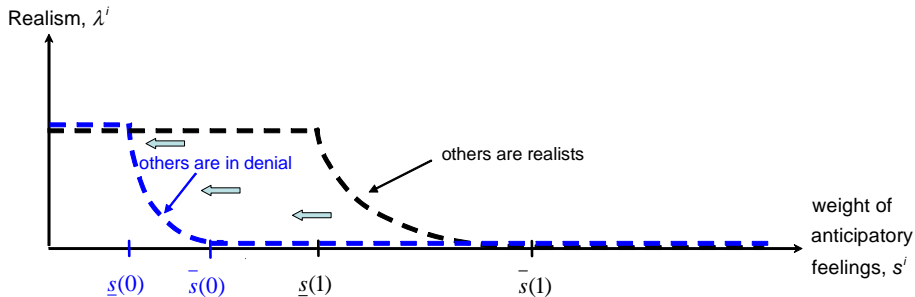
- In low state L , persevering ($e = 1$) still has **positive social value**, though below private cost: sports team, traditional business
- Others' disregard of bad news leads them to act in a way that is **better** for an agent than if they were realists \Rightarrow
 - ▶ Makes those news less bad, easier to accept
 - ▶ **Reduces** each individual's incentive to engage in denial



Case 2: high-risk project or strategy (corporate, political...)

$$\theta_L < 0$$

- In low state, persevering has **negative value**, both **social** and private: Enron, “creative” or highly leveraged finance
- Others’ reality denial leads them to make things **worse** for an agent than if they were realists \Rightarrow
 - ▶ Future prospects become even more scary, harder to face
 - ▶ **Increases** each individual’s incentive to look the other way

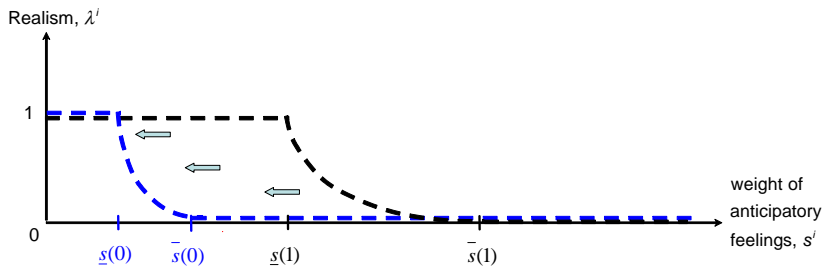
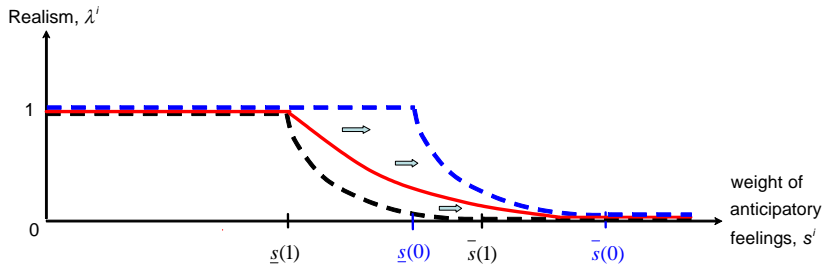


◆ Mutually Assured Delusion (MAD) Principle

- When reality avoidance by others is **beneficial**, the more prone they are to it, the less I want / need to do it \implies spread of beliefs is **self-limiting**
 - ▶ Individual cognitive strategies are strategic substitutes
- When reality avoidance by others is **harmful**, the more prone they are to it, the more I want/need to do it. Spread of beliefs is **self-amplifying**
 - ▶ Individual cognitive strategies are strategic complements
- “Psychological multiplier” \implies interdependent beliefs and actions
- Look next for **equilibrium**: corporate culture, **social cognition**
 - ▶ Stable, collectively sustained way of perceiving the world
 - ▶ In how they think and in what they do, everyone is “best-responding” (adapting) to how every one else around them thinks and acts

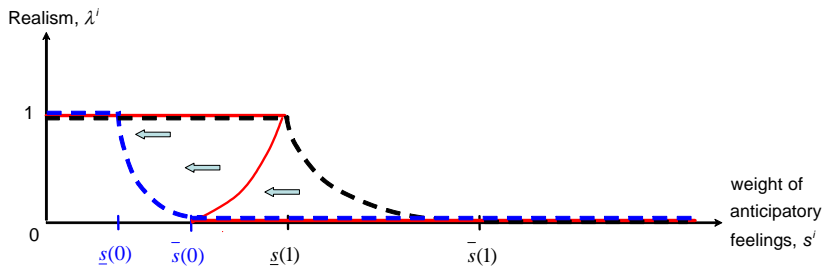
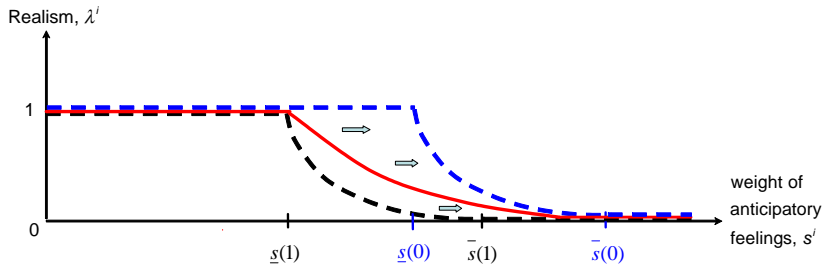
Social cognition: beneficial group morale

$$(\theta_L > 0)$$



Social cognition: harmful groupthink

$$(\theta_L < 0)$$

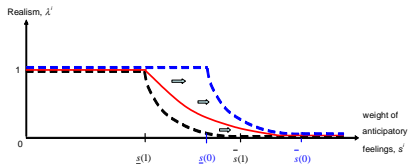


Proposition

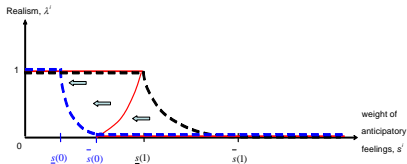
- 1 Both collective realism ($\lambda = 1$) and collective denial ($\lambda = 0$) are equilibria, within some range of parameters, when

$$\text{Prob}(\text{state } L) \times (\theta_H - \theta_L) < (1 - \alpha) (0 - \theta_L).$$

- 2 Groupthink more likely when more “common fate”, few exit options ($\alpha \downarrow$); more tail risk, worse bad news ($1 - q \downarrow \theta_L \downarrow$): “black swans”.



Social Cognition: Group Morale



Social Cognition: Groupthink

- Culture of denial: all persist in wrong course of action, ignoring the red flags – *because others do*
- Potentially testable implications: vary payoff structure, parameters

Asymmetric groups and corporate cultures

- Social-interaction structure that now allows for differing roles

<i>Impact of j on i</i>	If j "acts": $e^j = 1$	If j "bails out": $e^j = 0$
In good state H	a_H^{ji}	b_H^{ji}
In bad state L	a_L^{ji}	b_L^{ji}

- Individuals may also differ in their costs, preferences, initial beliefs
- **Groupthink: multiple organizational cultures** sustainable when

$$\text{Prob}(\text{state } L) \times \left(\begin{array}{l} \text{gains to } i \text{ from} \\ \text{being in state } H \text{ vs. } L, \\ \text{keeping } e^j = 1 \text{ for all} \end{array} \right) < \left(\begin{array}{l} \text{losses to } i \text{ from others'} \\ \text{delusions} \rightarrow \text{choose} \\ e^j = 1 \text{ in state } L \end{array} \right)$$
$$(1 - q) \quad \times \quad \sum_{j=1}^n (a_H^{ji} - a_L^{ji}) \quad < \quad \sum_{j=1}^n (b_L^{ji} - a_L^{ji})$$

- **Dependency insight:** each individual's cognitive "best response" depends most on how key the contributors to his welfare deal with bad news

Hierarchies

- Simple hierarchy: agent 1 = manager(s), 2 = worker(s).
Following bad news about product, market,...
- Managers' delusional persistence hurts workers **much more than reverse**:
 - ▶ $b_L^{12} - a_L^{12}$ large: management opens new branches, takes on more debt \Rightarrow increases risk of bankruptcy, losses of jobs and pension for workers
 - ▶ $b_L^{21} - a_L^{21}$ small: workers fail to look for other job, diversify, reduce effort \Rightarrow not so bad, or even good for firm \Rightarrow
- "Cognitive trickle down": subordinates adopt the same lens through which to view the world as that of their superiors
 - ▶ If **manager** not very prone to anticipatory emotions, not too exclusively dependent on this project, have limited downside \Rightarrow will be **realist** when faced with bad news \Rightarrow **subordinates** will tend to also be **realists**
 - ▶ If **manager** highly prone to anticipatory emotions, "locked into" the project, high stakes (e.g., financial incentives) in it, \Rightarrow will engage in reality **denial** and willful blindness \Rightarrow subordinates will tend to also be **wishful thinkers**

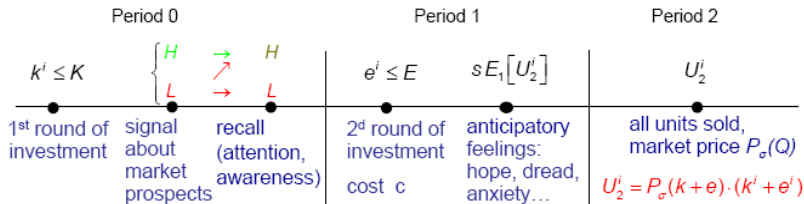
Codependency and cognitive capture

- Some first evidence:
 - ▶ Enron's employees, whose pension portfolios had on average 58% in company stock, could have moved out at nearly any point. Most never did.
 - ▶ At Bear Stearns, 30% of the stock was held until the last day by employees, with presumably good access to diversification and hedging instruments. Lost their capital together with their job.
 - ▶ Will see similar patterns at many other financial institutions during 2008 bubble/crisis, at all levels of hierarchy
- Important role of specialized human capital = completely illiquid asset
- Countering (harmful) groupthink: acting on stakes likely to be more effective than pure evidence
 - ▶ Diversification, exit options. Interactions with outsiders
 - ▶ Devil's advocates inside organization: rewarded for (given stakes in) advocating, reminding of bad news
 - ▶ Cassandra's curse: want them on board a priori, but once bad news arise want to "kill the messenger" ⇒ need commitment mechanisms (tying one's hands)

II - “Irrational Exuberance” in Asset Markets

- R. Shiller (2005): Irrational Exuberance, “new economic era thinking”
 - ▶ Suspension of disbelief about: housing prices (households), default rates (lenders, regulators), assets risk, ability to get them off balance sheet (banks)
- Before: Madoff investors, internet bubble,...etc. Recurrent patterns
 - ▶ Kindleberger & Aliber (2005): “Manias, Panics & Crashes: A History of Financial Crises”
 - ▶ MacKay (1980): “Extraordinary Popular Delusions & the Madness of Crowds”
 - ▶ Reinhart-Rogoff (2009): “This Time is Different”
- Economics has (many, important) models of financial “bubbles”, “herds,” “information cascades,” but missing the delusion / willful blindness element
 - ▶ Cognition in these models is either rational or boundedly rational (mistakes), but always “cold,” not “hot”.

“Irrational Exuberance” in Asset Markets



- Investors linked by final price, resulting from:
 - State of demand, say for housing: θ
 - Total supply built up at $t = 0, 1$ and “unloaded” on the market at $t = 2$.
 - Contagion: does other market participants’ exuberance (denial of bad news) make each individual more or less likely to also be bullish ?
- Market’s obliviousness to weak fundamentals will further depress the final price: $P_L(K + E) \searrow \searrow$: glut, market crash \Rightarrow two opposing effects:
 - Substitutability: if i remains bullish, will lose even more money on new e_i
 - Stakes: if bearish, even greater capital losses must be immediately acknowledged on outstanding position k^i

Implications

- **Escalating commitment / sunk cost effects:** the more agent i has invested to date (k^i), the more likely he is to ignore red flags, and “double up”
- **Market momentum:** the greater was *aggregate* prior investment (K), the more likely each agent is to continue investing blindly

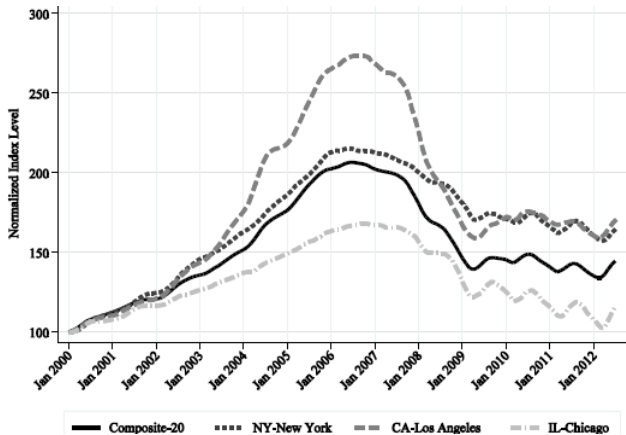
Proposition (market manias and crashes)

Over appropriate range of parameters:

- 1 *A given asset market can have phases (equilibria) of realism and phases of blind “exuberance” in the face of bad news*
 - 2 *Market mania leads to overinvestment and eventual crash.*
- Policy implication: **short-sellers** (negative stakes k^i or e^i) as an important corrective force, Cassandras Important downside to banning short-selling
 - Empirical evidence for this kind of model, predictions?
 - ▶ Harder than in lab: can't randomize stakes, costs, benefits, elicit beliefs. But lots of “naturally occurring” data + economics principle of inferring what people believe from what they do (“putting their money on”).

“Wall Street and the Housing Bubble”

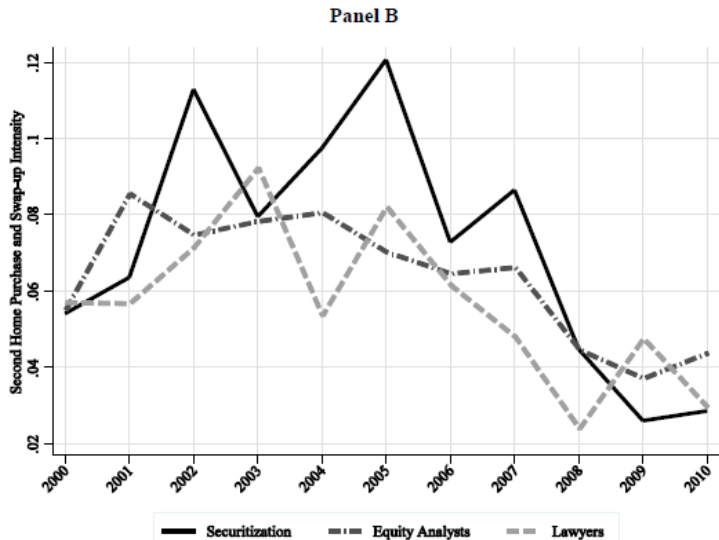
- Cheng, Raina & Xiong (2014)



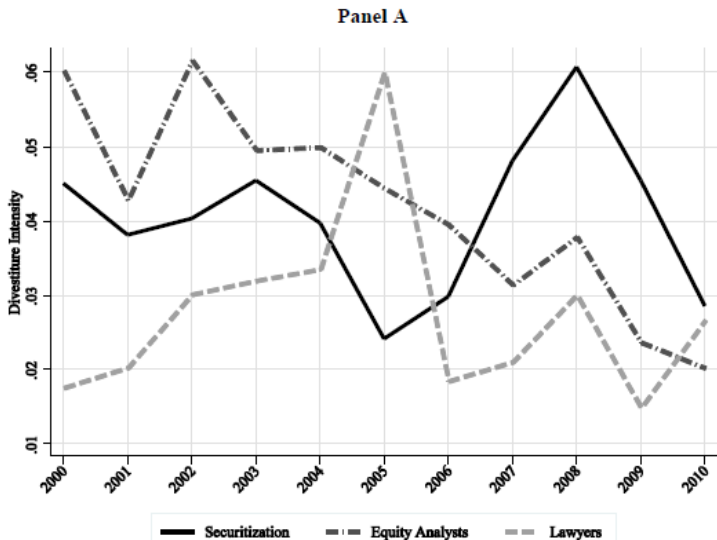
Bad incentives or bad beliefs?

- **Standard account = moral hazard:** badly structured incentives led Wall Street to take excessive risks in the housing market, with disastrous consequences for others: securitizing mortgages with very lax screening of subprime borrowers, liar loans, etc.
 - ▶ Unscrupulous insiders, **knowingly deceiving** households, banks, shareholders
- But: what did insiders **really believe?** Can we tell?
- **Idea:** identify + track down **own housing transactions** of 400 insiders at the heart of the mortgage-backed securities (MBS) industry: “**securitization agents**” = issuers, investors, managers and other executives at major investment houses and boutique firms
- Control groups:
 - ▶ S&P-500 equity analysts who do **not** cover homebuilding companies
 - ▶ Random sample of lawyers who did **not** specialize in real estate law.

Second-home purchases



Home divestitures (sales)



Main findings

- Securitization agents **increased** rather than decreased, their housing exposure during the boom period, particularly through second home purchases and swaps of existing homes into more expensive homes
- Were also much **slower to sell** once prices had started falling
- Difference not explained by interest rates or financing, and is more pronounced in bubblier Southern California vs. New York metro region
- Accords well with **stakes-dependent beliefs, wishful thinking**
- Overall, insiders / securitization agents' own home portfolio performance was **significantly worse** than that of control groups
- Agents working on the sell side and for firms which had poor stock price performance through the crisis did particularly poorly themselves.

Further evidence

- Literature in **organizational psychology / sociology**: emphasizes the insufficiency of moral hazard (rational malfeasance, weighing all costs and benefits) as sole explanation for most corporate misconduct, financial fraud
- Instead, self-serving **rationalizations**, “**ethical fading**,” and **overoptimistic hubris** are key enablers

(Tenbrunsel and Messick 2004, Bazerman and Tenbrunsel 2011; Huseman and Driver, 1979; Sims, 1992; Anand et al., 2005; Schrand and Zechman, 2008)

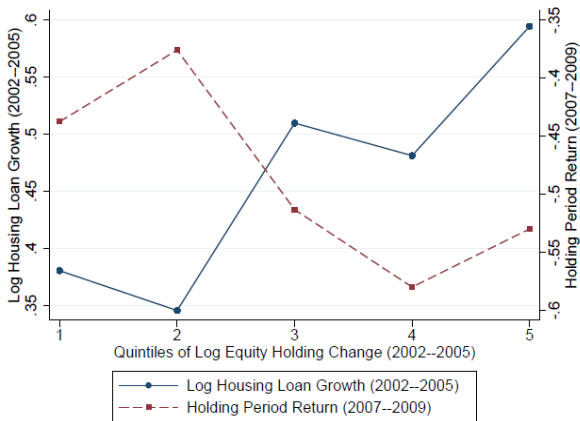
- Foote et al. (2012): document how banks and dealers issuing MBS' during financial bubble / crisis kept a lot of it on their books, resulting in huge losses. Reminiscent of escalating commitment. Also as in model,
 - ▶ Their **analysts** understood fairly well how the assets would fare under different housing-price scenarios \implies not mostly an issue of “complexity”
 - ▶ But **assigned very low probabilities** to adverse scenarios, even after housing prices started falling nationwide

“Bank CEO Optimism and the Financial Crisis”

- Y. Ma (2017)
- Question: did CEO's (“Directeur Général”) of major commercial and investment banks:
 - ▶ Knowingly have firm accumulate on balance sheet securities which they knew were “toxic”, due to perverse incentives (moral-hazard / agency theory), or
 - ▶ Were they **overoptimistic** about the prospects of the housing market?
- Collect lots of financial data:
 - ▶ Bank balance sheet + loan originations: show pre-crisis investment decisions
 - ▶ Executives' equity holdings and transactions: construct proxies for their beliefs
 - ▶ Data on bank stocks: measure performance during crisis; various controls
 - ▶ Baseline: 184 banks with unchanged CEO during housing boom (2002-2005). Characteristics similar to those of full sample.
- Measures of CEO “optimism”
 - ▶ Change in total holdings of his/her bank stocks and options
 - ▶ Decisions to exercise vs. hang on to vested, deeply “in-the-money” options (option to buy stock at preset price p , when market price $P_t > 1.67 \times p$)

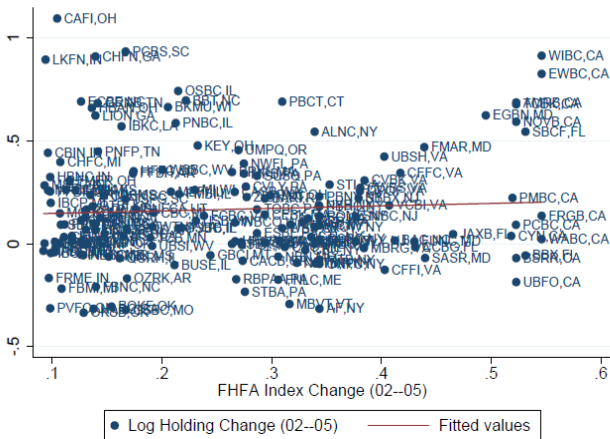
- CEO equity holdings, bank's growth of housing loans & crisis performance

- ▶ Banks grouped by quintiles (20%) of CEO's equity holding changes



- Shows: where CEO holdings grew fastest, real estate loans also did, and firm value declined the most

- CEO equity holdings, bank's growth of housing loans & crisis performance



- Shows: CEO holdings grew fastest where house prices \nearrow (02-05) was highest

CEO optimism and pre-crisis growth of real estate loans

Growth of Real-Estate Loans = $a + b \cdot \text{Stock accumulation by CEO} + c \cdot \text{Controls} + \varepsilon$

	Log Change Loans Backed by Real Estate (02-05)				
	(1)	(2)	(3)	(4)	(5)
Log Holding Change (02-05)	0.305*** (0.0781)	0.267*** (0.0748)	0.340*** (0.121)	0.300*** (0.111)	0.275** (0.105)
Dividend Yield as of 2002		-4.477*** (1.489)		-1.717 (2.653)	-1.521 (2.566)
Volatility as of 2002		0.200 (0.283)		0.431 (0.326)	0.422 (0.308)
RE Loans/Assets by 2002		-0.123 (0.166)		-0.254 (0.183)	-0.262 (0.174)
Size (log assets) by 2002		-0.0203 (0.0140)		-0.0272* (0.0143)	-0.0290** (0.0138)
Log Holding Change (98-01)			-0.0330 (0.0202)	-0.0444* (0.0242)	-0.0400* (0.0211)
RE Loan Growth (98-01)			0.304** (0.137)	0.254** (0.111)	0.249** (0.109)
FHFA Index Change (02-05)					0.386 (0.252)
Constant	0.411*** (0.0246)	0.656*** (0.190)	0.272*** (0.0564)	0.519*** (0.181)	0.441** (0.181)
Observations	142	136	77	76	76
R-squared	0.076	0.170	0.204	0.304	0.339

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

- Shows: pre-crisis (2002-2005):, the more CEO accumulated in own stock, the faster bank's real-estate loans grew
- Same results with controls for county and HMDA loans

Measure of CEO optimism based on non-exercised options

	Growth of Loans backed by Real Estate (t to $t + 1$)									
$t =$	2002	2002	2003	2003	2004	2004	2005	2005	2006	2006
Opt (year $t - 1$)	-0.0438 (0.0429)	-0.0632 (0.0502)	0.0752** (0.0310)	0.0669** (0.0300)	0.0706*** (0.0262)	0.0536** (0.0269)	0.0672*** (0.0240)	0.0402** (0.0188)	0.0342 (0.0227)	0.0178 (0.0215)
Opt (year t)	0.0154 (0.0302)	0.0150 (0.0323)	-0.0300 (0.0306)	-0.0464 (0.0284)	0.00539 (0.0317)	-0.0192 (0.0328)	-0.00286 (0.0249)	-0.00158 (0.0206)	0.0216 (0.0234)	0.0175 (0.0236)
Opt (year $t + 1$)	-0.0180 (0.0317)	-0.0213 (0.0310)	0.0316 (0.0292)	0.0343 (0.0312)	0.0379 (0.0271)	0.0100 (0.0262)	-0.0240 (0.0320)	-0.00541 (0.0264)	-0.0203 (0.0258)	-0.00547 (0.0269)
Divident Yield (year t)		-2.708*** (0.969)		-4.324*** (1.587)		-1.566** (0.732)		-3.956*** (0.948)		-3.145*** (0.936)
Volatility (year t)		0.229 (0.173)		0.512 (0.312)		0.462 (0.295)		0.0787 (0.106)		0.248 (0.157)
Size (log assets) as of 2002		-0.0147 (0.0110)		0.0108 (0.0176)		0.00338 (0.0115)		0.00477 (0.00765)		0.0140* (0.00836)
RE Loan/Asset as of 2002		-0.0916 (0.156)		-0.154 (0.125)		0.104 (0.0841)		0.0537 (0.0932)		-0.0377 (0.0842)
Constant	0.185*** (0.0601)	0.351** (0.145)	0.168*** (0.0336)	0.138 (0.198)	0.118*** (0.0208)	-0.00374 (0.159)	0.132*** (0.0288)	0.134 (0.0916)	0.107*** (0.0346)	0.0262 (0.115)
Observations	102	102	117	115	139	128	129	118	123	108
R-squared	0.018	0.088	0.043	0.168	0.040	0.087	0.041	0.190	0.017	0.096

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

- Shows: the more CEO “hung on” to his/her options, the faster bank’s real-estate loans grew

CEO optimism and bank's stock performance during crisis

	Holding Period Return (2007-2009)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. No Controls									
Opt2006	-0.142*** (0.0493)							-0.126** (0.0603)	-0.101 (0.0679)
Opt2005		-0.0814* (0.0467)					-0.115* (0.0591)	0.0214 (0.0622)	-0.0325 (0.0708)
Opt2004			-0.140*** (0.0468)				-0.0389 (0.0603)	-0.149** (0.0657)	-0.0633 (0.0726)
Opt2003				-0.121** (0.0506)			-0.0420 (0.0673)	-0.0886 (0.0720)	-0.0898 (0.0765)
Opt2002					-0.191*** (0.0536)		-0.268*** (0.0603)		-0.238*** (0.0748)
Opt2001						-0.122* (0.0644)			
Panel B. With Controls									
Opt2006	-0.122** (0.0499)							-0.127* (0.0657)	-0.106 (0.0737)
Opt2005		-0.0808* (0.0477)					-0.0924 (0.0602)	0.0224 (0.0650)	-0.0221 (0.0729)
Opt2004			-0.139*** (0.0475)				-0.0391 (0.0592)	-0.137** (0.0691)	-0.0498 (0.0737)
Opt2003				-0.118** (0.0521)			-0.0497 (0.0704)	-0.0698 (0.0766)	-0.0779 (0.0796)
Opt2002					-0.180*** (0.0546)		-0.242*** (0.0623)		-0.225*** (0.0806)
Opt2001						-0.148** (0.0646)			

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

- Shows: banks where CEO stock holdings ↗ fastest during 02-05 had greatest ↘ in value during 07-09

Main lessons

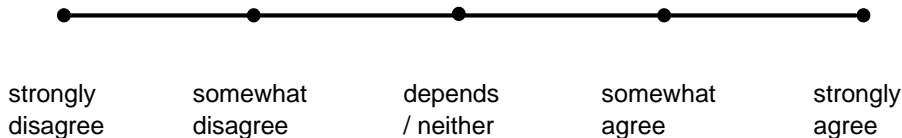
- Tests theories of recent financial crisis by studying how banks' pre-crisis **investments** connect to their **CEOs' beliefs**
 - ▶ Beliefs revealed by own portfolio decisions: which way they chose to "bet" on the market
- Banks with larger housing investments and worse crisis performance = those where CEOs who were more optimistic pre-crisis.
 - ▶ Banks with the most optimistic CEO's experienced **20 percentage points** higher real estate loan growth, and **15 percentage points** lower crisis period stock returns
- Strongly suggests **CEOs' optimism** contributed to credit expansions and **real estate exposures** pre-crisis, and **exacerbated bank** losses during the crisis

Main lessons

- Consistency between bank decisions and managerial beliefs not very supportive of view that top executives had bank accumulate real-estate based assets (MBS, etc.) due to misaligned incentives, while well aware of impending problems
 - ▶ If this were true, managers at banks with the most real estate investments should be most active in selling their equities to cash out in the pre-crisis period: opposite of what is found in the data.
- Both papers clearly show: standard corporate finance (agency theory) also needs to be enriched with “behavioral” elements
 - ▶ Most likely, bad incentives and bad beliefs
 - ▶ In fact, model (MAD principle) shows that they will mutually reinforce each other: high-powered incentives, like options, increase stakes in good vs. bad state of the world \implies encourage delusions

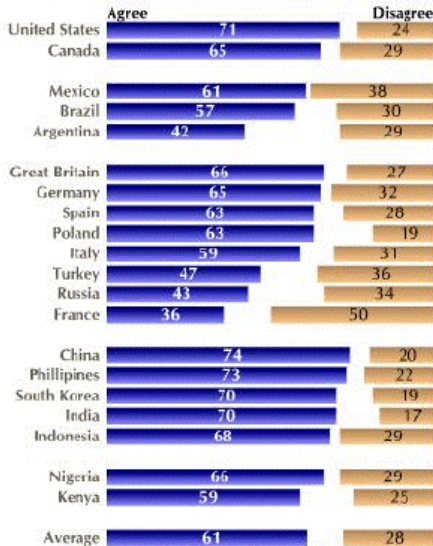
III - Ideology

The free enterprise and free market economy is the best system on which to base the future of the world



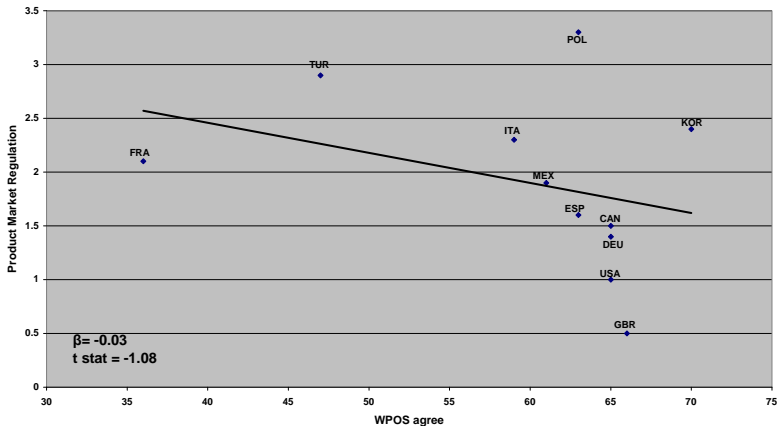
Free Market System

The free enterprise system and free market economy is the best system on which to base the future of the world.



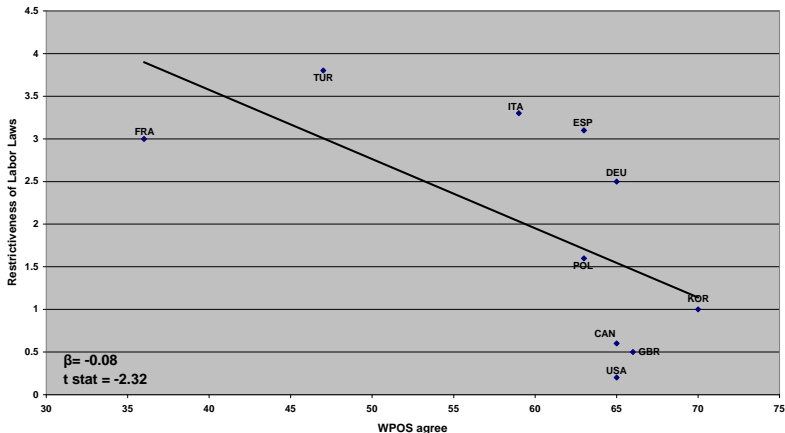
World Public Opinion Survey (2005)

These belief differences translate into policy differences...



Beliefs and product market regulation

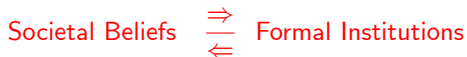
... but where do they come from?



Beliefs and labor market regulation

- Or could it be policies, status quo, that translate into beliefs?
- Persistence, role of history?

Basic idea



- *“The subjective mental constructs of the society’s participants will evolve an ideology that not only rationalizes the society’s structure but accounts for its poor performance. As a result, the economy will evolve policies that reinforce the existing incentives and organizations”*

(D. North, economic historian and Nobel, 1990)

Pro-state and pro-market ideologies

- Statist ideology

- ① **Beliefs \Rightarrow Institutions.** Majority has statist beliefs \Rightarrow will vote, bring about large public sector, regulations, lasting public capital.
- ② **Institutions \Rightarrow Beliefs.** People have strong psychological incentives (stakes) to “rationalize” system they have to live in (anticipatory utility): ignore, dismiss evidence (L) of “government failure,” that markets should play larger role

- Laissez-faire ideology

- ① **Beliefs \Rightarrow Institutions.** Majority has pro-market beliefs \Rightarrow will vote, bring about minimal public sector, regulations, mostly reliance on private choices and markets.
- ② **Institutions \Rightarrow Beliefs.** People have strong psychological incentives (stakes) to “rationalize” system have to live in (anticipatory utility): ignore, dismiss evidence (L) of “market failure,” that government should play larger role

- In both cases, similar to a collective version of the Stockholm syndrome. . . with everyone both hostage and hostage-taker

Cues

- Do we see signs of such rationalizations and persistence-inducing feedbacks between ideology and social structure, socioeconomic institutions, policies?
- **Laissez-faire:** “Capitalism is based on self-interest and self-esteem; it holds integrity and trustworthiness as cardinal virtues and makes them pay off in the marketplace, thus demanding that men survive by means of virtues, not of vices. It is this superlatively moral system that the welfare statist propose to improve upon by means of preventative law, snooping bureaucrats, and the chronic goad of fear.” (Alan Greenspan, 1963)
- **Statist:** “The French Social Model is neither inefficient nor outdated. It has a great ambition which can be expressed simply: permanently to level up. We must keep it. In a way it’s our national genius. It is a necessity.” (J. Chirac, 2005)

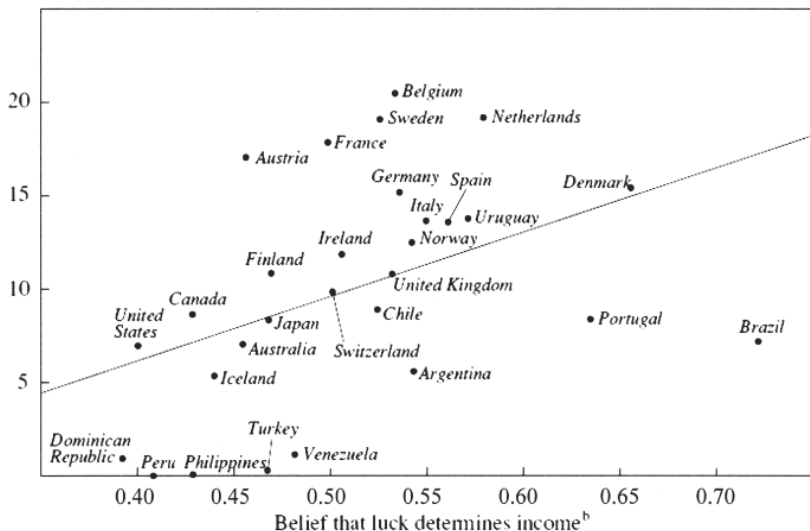
The causes of inequality

- World Values Survey: how much do you agree / disagree, from 1 to 10?
- ① Role of effort vs. luck in life:
 - ① In the long run, hard work usually brings a better life.
 - ② Hard work doesn't generally bring success—it's more a matter of luck and connections.
- ② Why are there people in this country who live in need? Here are two opinions: Which comes closest to your view?
 - ① They are poor because society treats them unfairly.
 - ② They are poor because of laziness and lack of will power.
- ③ In your opinion, do most poor people in this country have a chance of escaping from poverty, or is there very little chance of escaping?
 - ① They have a chance.
 - ② There is very little chance.

Luck vs. effort beliefs and redistribution

- Alesina et al. (2005)

Social spending (percent of GDP)^a



Within the US

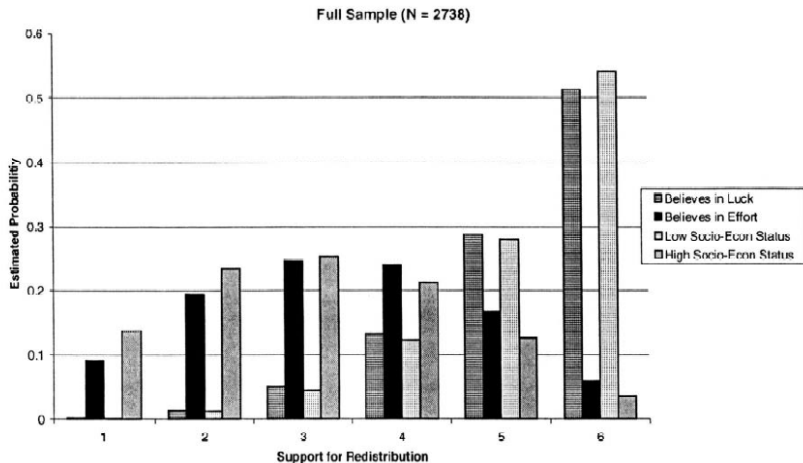


Fig. 1. Estimated probabilities for four categories of people.

C. Fong (2001)

- 1998 Gallup Survey, 'Haves and Have-Nots: Perceptions of Fairness & Opportunity,' 2738 respondents

$$\begin{aligned} \text{Support for redistribution} &= a + b \cdot \text{Effort or Luck Beliefs} \\ &+ c \cdot (\text{Income, Education}) \\ &+ d \cdot \text{Many Socioeconomic Controls} + \varepsilon \end{aligned}$$

- Estimated (marginal) effect of reporting that believes bad luck rather than lack of effort causes poverty are:
 - ▶ Twice the effects of being white instead of black, or male instead of female, or having some college education instead of none
 - ▶ Larger than effect of having household income above \$150,000 rather than below \$10,000
- "Classical" question in Political Economy: why do many of the poor vote against redistribution / left-wing parties?
 - ▶ Focus here on theories linked to beliefs about inequality and mobility

Mobility Beliefs & Redistributive Preferences: Theory

- 1 **Piketty (QJE 1995):** costly learning-by-doing of return to effort
 - ▶ Different countries may end up stuck at \neq beliefs, will choose \neq policies
 - ▶ No political economy: voters share social welfare function; mobility exogenous
- 2 **Benabou-Ok (QJE 2002):** expectations of mobility reduce the poor's demand for redistribution,
 - ▶ Even when mobility process is monotonic in expectation, and income distribution remains invariant (steady-state)
 - ▶ But: qualitatively insufficient, given risk aversion
- 3 **Alesina-Angeletos ("Fairness and Redistribution," AER 2005):**
Introduce "fairness preferences" - agents want to redistribute **only** the part of income differences that come from differential investments
 - ▶ Multiple self-fulfilling rational expectations equilibria: US high role of effort in mobility, Europe high role of luck
 - ▶ Citizens in both countries are **correct** about mobility process: key to the model –but counterfactual
- Other model of self-fulfilling beliefs: Aghion-Algan-Cahuc (2009) on trust

Mobility Beliefs & Redistributive Preferences: Theories

4. Bénabou-Tirole (2006): “Belief in a Just World and Redistributive Politics”

- ▶ “Behavioral” element is beliefs / cognitive dissonance: strong psychological need to believe that people ultimately get what they deserve, and deserve what they get (M. Lerner 1982)
 - ★ Has both affective (reassurance, consolation) and functional (motivation) purposes
- ▶ A lot of experimental evidence: when contrary signals, engage in cognitive dissonance, rationalizations, denial, **motivated beliefs**: attributing merit for fortuitous rewards, blaming the victim, etc. Related evidence on “Systems Justification” (Jost and Kay).
- ▶ Same tendencies also show up in ethnographical research by sociologists (M. Lamont, J. Hochschild)
- ▶ In many cases, these attributions of success/failure involve **willpower**, or lack thereof

Ethnographic research on the working poor

- Maria, poor cleaning lady interviewed by Hochschild (1981):

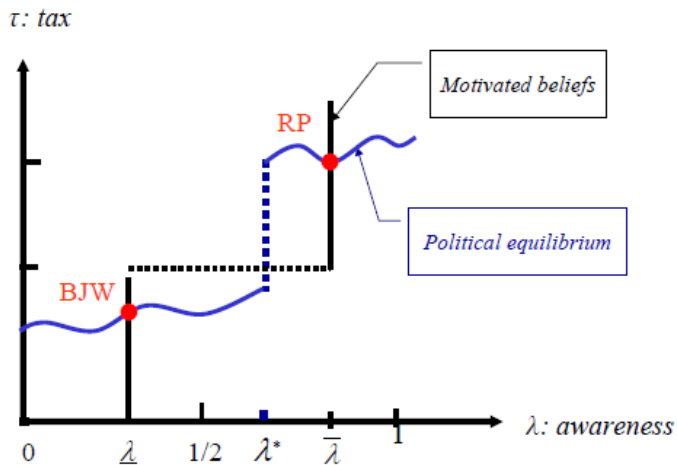
“Once, Maria wonders if executives deserve their \$60,000 annual salary: «I don’t think they do all that [much] work, do you? Sit at their desk—they got it easy». But she suppresses the thought immediately. «Well, maybe it is a lot of work. Maybe they have a lot of writing to do, or they have to make sure things go right. So maybe they are deserving of it.”

- Lamont (2000) interviews: importance of “the disciplined self.”
 - ▶ Main reported challenge in the life of the working poor is the daily struggle to “keep it going,” to persevere in the face of adversity, lest they share the fate of those around them who are even worse off: welfare dependency, homelessness, crime, substance abuse
 - ▶ Often have very harsh judgments on the “underclass,” attributing deep poverty in large part to “giving up,” “not caring,” having “no values,” “no direction in life,” etc.

Collectively sustained Belief in a Just Word (or not)

- BT 2006: model of ideology and institutions as mutually sustaining:
 - ① If many people have BJW, think success is highly dependent on effort \Rightarrow likely to be a majority or large, politically decisive group \Rightarrow will vote for and bring about low taxes and transfers, minimal redistribution
 - ② When safety net & redistribution are minimal, people have strong incentives to maintain, and pass on to children, beliefs that effort pays, must persevere in face of adversity, etc. \Rightarrow high fraction of voters will have or maintain just-world beliefs
- Conversely:
 - ① If most people think income differences are due to luck and connections \Rightarrow majority will vote for and bring about high taxes, large welfare state
 - ② With high taxes and generous transfers, effort and perseverance-enhancing beliefs that everyone ultimately gets what they deserve are much less adaptive \Rightarrow fewer people will have or transmit such beliefs

Persistent ideology-policy equilibria



BJW : Belief in a Just World + Laissez-Faire Equilibrium [US]

RP: Realistic Pessimism + Welfare State Equilibrium. [Europe]

Main Results

- “American Dream” equilibrium, with excessively optimistic, just-world beliefs about social mobility, and little redistribution
- “Europessimistic” equilibrium, with more realistic or even excessively pessimistic beliefs about social mobility, and high redistribution
- Moreover:
 - ▶ In the former, the poor are more (unjustly) stigmatized as lazy
 - ▶ In the latter, total effort (e.g., hours worked) and income are lower
- Across all equilibria (can be > 2): negative correlation between just-world beliefs and size and welfare state –as observed across countries

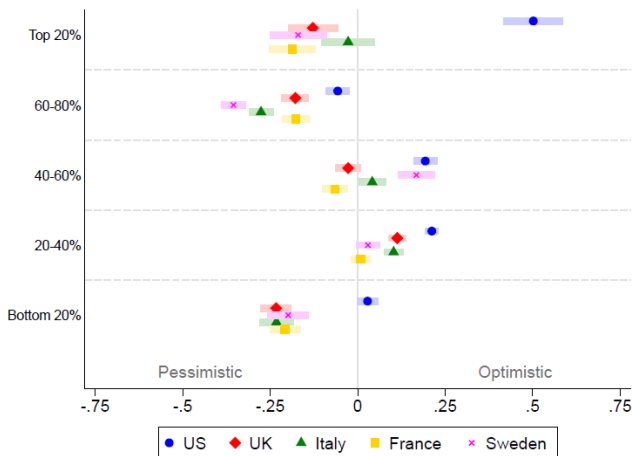
Mobility Beliefs & Redistributive Preferences: Evidence

- Alesina, Stantcheva and Teso (2017) “Intergenerational Mobility and Preferences For Redistribution”
- ① Compare perceived and actual upward mobility (bottom quintile $Q_1 \rightsquigarrow Q_k$), across 5 OECD countries
 - ▶ Both absolute, and conditional on effort or talent
 - ▶ Large online survey + actual data on social mobility
- ② Online experiment
 - ▶ Randomly induce perceptions that mobility is very low (first stage)
 - ▶ Examine treatment effects on attitudes toward various forms / programs of redistribution: targeting equality of opportunity vs. equality of outcomes.
 - ▶ Large sample ($n \approx 2800$), no deception, no incentives - just stated attitudes

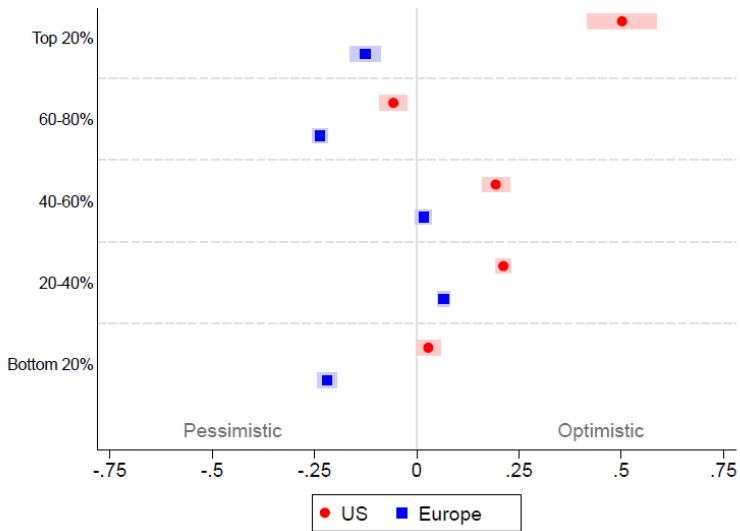
Perceived vs. Actual Intergenerational Mobility

FIGURE 2: MOBILITY MISPERCEPTIONS

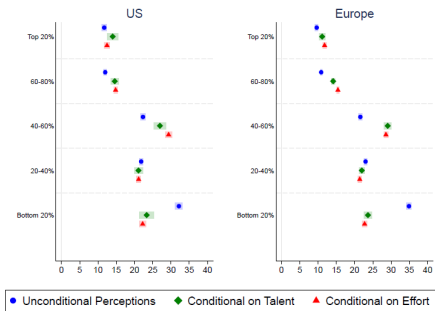
(a) All countries



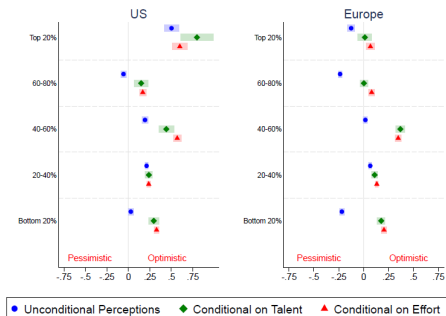
(b) US versus Europe



(a) Perceptions



(b) Misperceptions



- Key finding: Americans overoptimistic about mobility, Europeans pessimistic
 - ▶ Matches exactly the main prediction in Bénabou-Tirole QJE 2006
 - ▶ Not multiple rational expectations account in Alesina-Angeletos AER 2005

⇒ Points in the direction of Behavioral Political Economy / Political Psychology

Experiment: Perceptions of Mobility

TABLE 12: FIRST STAGE EFFECTS ON MOBILITY PERCEPTIONS

	Q1 to Q1 (1)	Q1 to Q2 (2)	Q1 to Q3 (3)	Q1 to Q4 (4)	Q1 to Q5 (5)	Q1 to Q4 (Qual.) (6)	Q1 to Q5 (Qual.) (7)	American Dream Alive (8)
<i>All Respondents</i>								
Treated	9.691*** (0.560)	-2.123*** (0.278)	-5.885*** (0.304)	-1.806*** (0.201)	0.123 (0.344)	-0.105*** (0.010)	-0.085*** (0.009)	-0.031*** (0.009)
Control mean	34.17	22.63	22.23	10.76	10.21	0.38	0.27	0.36
Obs.	8585	8585	8585	8585	8585	8585	8585	8585
<i>Left-Wing Respondents</i>								
Treated	10.170*** (0.999)	-2.117*** (0.506)	-6.076*** (0.507)	-2.052*** (0.339)	0.076 (0.604)	-0.092*** (0.016)	-0.069*** (0.014)	-0.011 (0.015)
Control mean	37.48	23.01	20.71	9.70	9.11	0.30	0.20	0.24
Obs.	2797	2797	2797	2797	2797	2797	2797	2797
<i>Right-Wing Respondents</i>								
Treated	11.267*** (0.964)	-2.211*** (0.479)	-6.247*** (0.555)	-2.259*** (0.350)	-0.551 (0.582)	-0.135*** (0.018)	-0.097*** (0.016)	-0.046*** (0.016)
Control mean	32.39	22.84	23.37	11.16	10.24	0.43	0.29	0.46
Obs.	2808	2808	2808	2808	2808	2808	2808	2808

Notes: The outcome variables are all as defined in Table 3 (columns 1-7), and in Table 5 (column 8). All regressions include the same controls of Table 10. “Left-Wing Respondents” and “Right-Wing Respondents” are defined as in Table 10. “Control mean” is the mean of the outcome variable in the control group. Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 14: TREATMENT EFFECTS ON POLICY PREFERENCES

	Budget Education > p(80) (1)	Budget Health > p(80) (2)	Budget Opp. > p(80) (3)	Budget Safety Net > p(80) (4)	High Government Interv. (5)	High Support Equal Pol. (6)	Tax Rate Top 1 > p(80) (7)	Tax Rate Bottom 50 > p(80) (8)	Support Estate Tax (9)	Unequal Opp. Very Serious Problem (10)	Government Tools (11)	Trust Governmen (12)
<i>All Respondents</i>												
Treated	0.009 (0.007)	0.016** (0.007)	0.014* (0.008)	0.008 (0.006)	0.004 (0.010)	0.028*** (0.009)	0.007 (0.009)	0.013 (0.009)	0.015 (0.010)	0.046*** (0.013)	-0.017 (0.013)	-0.018* (0.011)
Control mean	0.13	0.12	0.16	0.07	0.48	0.23	0.18	0.17	0.58	0.23	0.72	0.19
Obs.	8585	8585	8585	8585	8585	8585	6851	6851	8584	4281	4281	4281
<i>Left-Wing Respondents</i>												
Treated	0.031** (0.014)	0.042*** (0.013)	0.036** (0.015)	-0.005 (0.011)	0.048*** (0.018)	0.047** (0.019)	0.007 (0.017)	0.007 (0.014)	0.014 (0.017)	0.104*** (0.026)	-0.009 (0.021)	-0.029 (0.020)
Control mean	0.14	0.13	0.20	0.09	0.63	0.38	0.22	0.13	0.71	0.33	0.79	0.21
Obs.	2797	2797	2797	2797	2797	2797	2309	2309	2797	1391	1391	1391
<i>Right-Wing Respondents</i>												
Treated	-0.003 (0.012)	0.010 (0.012)	-0.000 (0.013)	0.010 (0.009)	0.006 (0.017)	0.017 (0.013)	0.008 (0.015)	-0.005 (0.017)	0.012 (0.018)	0.017 (0.019)	-0.050** (0.025)	-0.014 (0.019)
Control mean	0.12	0.12	0.14	0.05	0.36	0.13	0.15	0.22	0.42	0.15	0.65	0.19
Obs.	2808	2808	2808	2808	2808	2808	2282	2282	2808	1442	1442	1442

Notes: The budget outcomes are indicators equal to one if the share of budget allocated to the specific category is above the 80th percentile in the variable

- Key finding: When made (exogenously) pessimistic about mobility:
 - ▶ Left-wingers become more favorable to redistribution, esp. for EOO
 - ▶ Right-wingers don't change their minds
 - ▶ Reminiscent of previous study on manipulating perceptions of inequality: Côté, Housea, and Willer (PNAS 2015) "High Economic Inequality Leads Higher-Income Individuals to Be Less Generous"

Overconfidence and Extremist Political Beliefs

- Increasing polarization of political opinions within most countries
 - ▶ Even though everyone has easier access to much more information
- Ortoleva and Snowberg (2015) “Overconfidence in Political Behavior”
- ① Model: voters suffer from “correlation neglect”: fail to take account that observations obtained from their local environment, social network and chosen information sources are largely redundant ⇒ “double counting”
 - ▶ Exogenous distribution of such cognitive biases. The greater one’s bias, the more overconfident, and the more signals one has, the more so!
- ② Empirics: representative sample of over 3,000 American adults were asked:
 - ▶ Standard socio-demographic and political-survey questions
 - ▶ To provide their estimates and degrees of confidence for current and next year’s rates of inflation and unemployment
 - ▶ Also use other neutral questions: birth year of Shakespeare, etc.
 - ▶ Can then construct over/underconfidence measure. .
 - ▶ For subsample, can check their actual voting turnout in elections

TABLE 3—OVERCONFIDENCE IS ROBUSTLY RELATED TO IDEOLOGY AND EXTREMENESS

	Ideology			Ideological extremeness purged of economic controls		
Overconfidence	0.22*** (0.027)	0.22*** (0.023)	0.20*** (0.023)	0.23*** (0.028)	0.17*** (0.027)	0.12*** (0.026)
Economic controls		Yes	Yes		Yes	Yes
Number of signals			Yes			Yes
R^2	0.048	0.16	0.23	0.055	0.19	0.29
Observations	2,868					

- Shows: even controlling for socioeconomic characteristics, more overconfident people are also more politically extreme, on both Left and Right
- Also: the more overconfident are more likely to turn out to vote

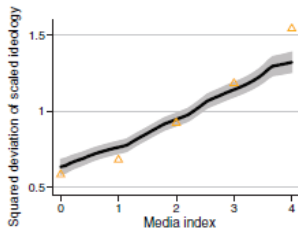
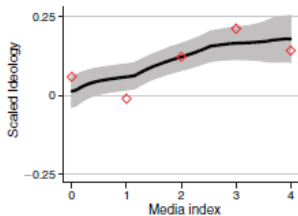
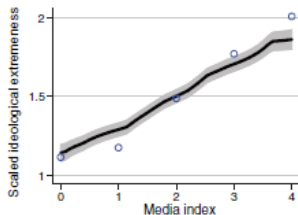
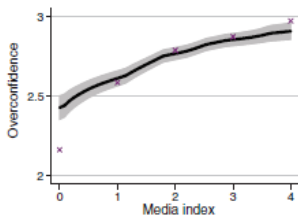
TABLE 4—OVERCONFIDENCE IS A SUBSTANTIALLY IMPORTANT PREDICTOR OF IDEOLOGY AND IDEOLOGICAL EXTREMENESS

A one standard deviation change in _____ is associated with	A ___ standard deviation change in ideology, and		A ___ standard deviation change in extremeness	
	Minimum	Maximum	Minimum	Maximum
Income	0.06	0.08	0.01	0.28
Education	0.10	0.20	< 0.01	0.25
Union member	0.01	0.07	< 0.01	0.08
Home owner	0.02	0.17	< 0.01	0.15
Stock owner	0.06	0.14	< 0.01	0.27
Overconfidence	0.17	0.24	0.12	0.26

Notes: The minimum and maximum effect size come from regressions with no other variables, and all other variables, respectively, across the three different measures of ideology and extremeness. These specifications can be found in the online Appendix. For the controls, we consider extremeness measures both that have, and have not, been purged of the economic effect on ideology. Effect sizes for categorical variables are based on entering them linearly in regressions.

Not about limited information, “rational” inattention...

- The more exposure to media (self-reported, or/and age), has the more individual will be: (1) overconfident and (2) politically extreme



Models of Extremist Beliefs

- **Ortoleva and Snowberg**: voters suffer from “**correlation neglect**”: fail to take account that observations obtained from their local environment, social network and chosen information sources are largely redundant.
 - ▶ Exogenous distribution of such cognitive biases. The greater the bias, the more overconfident, and the more signals one has, the more so
 - ▶ More biased (correlation-neglecting) people, in turn, acquire more signals
- Where could the correlation neglect arise from?
 - ▶ Wired-in bias, personality trait. Substantial experimental evidence for correlation neglect. Alternatively: endogenous (or endogenously amplified)
- **Le Yaouanq (2015)** incorporates political-preference heterogeneity into BT 2006 model of **motivated political cognition** \implies
 - ▶ More politically extremist agents (higher stakes) are more prone to engage in reality denial \implies end up more politically overconfident
 - ▶ When people can form networks in which political views will be exchanged, ideological homophily will tend to prevail, increasing collective biases and polarization (Della Vigna and Kaplan 2007; Gentzkow and Shapiro 2011).

Political Ideology

- Endogenous complementarities in motivated cognition also help explain persistent differences across countries in dominant beliefs about:
- Role of effort vs. luck in life, social mobility, merits of laissez-faire versus redistribution: Bénabou-Tirole (QJE 2006).
 - ▶ Individual demand for beliefs that "effort pays", "just deserts", etc. serves to motivate oneself or one's children
 - ▶ Model also applies to values for consumption vs. leisure (degree of "materialism") and some key aspects of religion. (e.g., divine rewards and punishments)
- Proper scope / effectiveness of State vs. Market in the financing and delivery of education, health insurance, etc.: Bénabou (JEEA 2009).
 - ▶ Individual demand for beliefs consistent with dominant ideology/ policies ("system justification") due to anticipatory utility, MAD principle
 - ▶ Besides multiple ideology-policy steady states, yields history-dependent dynamics, via stocks of public vs. private capital.

Main results and implications - collective beliefs

- ① **MAD principle:** denial is contagious when it is socially harmful.
- ② Collective realism and collective wishful thinking as **equilibrium cultures** in firms, organizations. Group morale vs. groupthink.
- ③ **Hierarchies:** cognitive strategies and hence **beliefs trickle down** from leaders to subordinates
- ④ **Cassandra's curse:** ex ante vs. ex post treatment of dissenting speech, implying need for “constitutional” guarantees.
- ⑤ **Market frenzies and crashes:** contagious wishful thinking about prices, fundamentals.
- ⑥ **Ideology:** national beliefs about, e.g., compared virtues of laissez-faire versus redistribution, or state vs. markets in financing/delivery of education, health insurance, etc. Feedback is through **voting**.