Toulouse School of Economics

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INSTITUTE for ADVANCED STUDY in TOULOUSE

Institutions as vehicles for religious and political narratives

IOEA, Cargèse, Corsica, 17th May 2016

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Two examples of narratives with major economic consequences (I):

- Ghana, February 2015:

Worshippers thronging to place offerings in the collection at a Revival week service of the Assemblies of God in Accra, Ghana

Shortly after this the choir sang a hymn whose refrain was:

I had a debt I could not pay
He paid a debt he did not owe
I needed someone
To wash my sins away

Two examples of narratives with major economic consequences (II):

- Greece, June 2015:

Austerity in Athens

Two examples of narratives with major economic consequences (II):

- Greece, June 2015:

- “Five years of negotiations that have achieved virtually nothing (the few reforms that had been adopted, like a small reduction in the inflated number of public sector employees, have since been reversed by the Syriza-lead coalition). It is pretty clear that the Greeks have no appetite for modernising their society” – Francesco Giavazzi, *Financial Times,* 9 June 2015.

- In fact: public sector employment fell from 907,351 in 2009 to 651,717 in 2014, a drop of > 25% (source: EU Commission)

Outline of presentation:

- Institutions and firms – similarities and differences
- The fall and rise of economists' interest in religion
  - Adam Smith
  - In the 19th and 20th centuries most of the links explored by historians and sociologists (Weber, Durkheim, Tawney)
  - Anthropology, sociology, and secularization
  - The new evolutionary anthropology
  - The new economics of religion
- Political parties and the motivation problem
- A missing component – narratives and causal inference

Institutions and firms – similarities and differences:

- In the Arrow-Debreu model, firms are the only institutions; contracts are automatically enforced
- Two natural ways to think of institutions
  - As the missing element that explains the enforcement of agreements
  - As “non-standard” types of firm, typically because they both create and internalize externalities
- In the two types considered here, we’re going to take the analogy of institutions as platforms, which (endogenously) have to solve their own contractual credibility challenges

Adam Smith on religion:

The [clergy] may either depend altogether for their subsistence upon the voluntary contributions of their hearers; or they may derive it from some other fund to which the law of their country may entitle them; such as a landed estate, a tythe or land tax, an established salary or stipend. Their exertion, their zeal and industry, are likely to be much greater in the former situation than in the latter. In this respect the teachers of new religions have always had a considerable advantage in attacking those ancient and established systems of which the clergy, reposing themselves upon their benefices, had neglected to keep up the fervour of faith and devotion in the great body of the people; and having given themselves up to indolence, were become altogether incapable of making any vigorous exertion in defence even of their own establishment. The clergy of an established and well-endowed religion frequently become men of learning and elegance, who possess all the virtues of gentlemen, or which can recommend them to the esteem of gentlemen; but they are apt gradually to lose the qualities, both good and bad, which gave them authority and influence with the inferior ranks of people, and which had perhaps been the original causes of the success and establishment of their religion. – *Wealth of Nations*, book 5, chapter 1.

Anthropology, sociology and secularization:

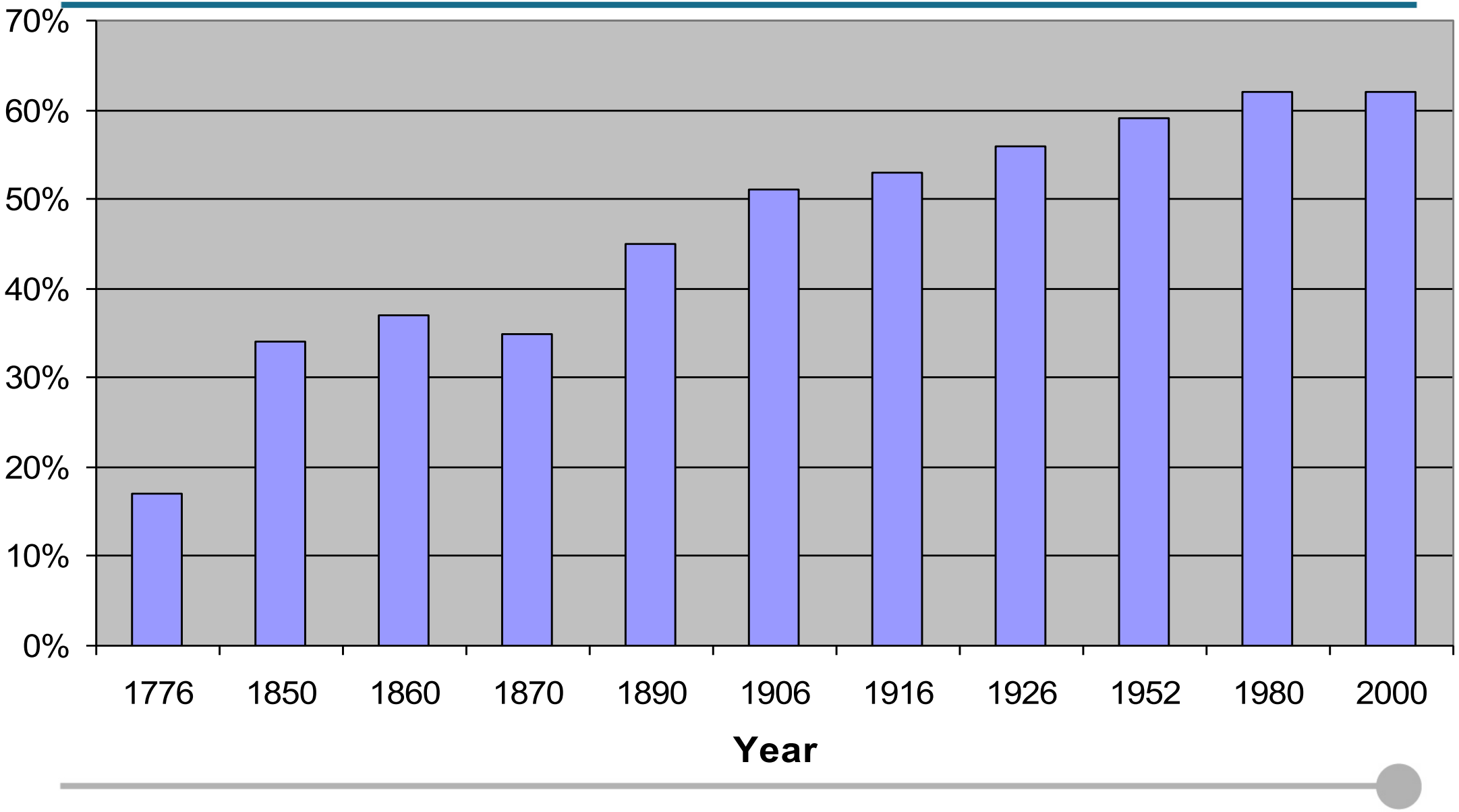
- James Frazer's *The Golden Bough* (1890)
- Max Weber's *The Protestant Ethic and the Spirit of Capitalism* (1904)
- Durkheim's *The Elementary Forms of the Religious Life* (1912)
- Though many differences, shared conviction that economic development involved "disenchantment of the world", and that religion represented an intermediate state between magic and science
- The decline in Church attendance in European countries during the 20th century seemed to bear out this view

But the United States did not fit the pattern…

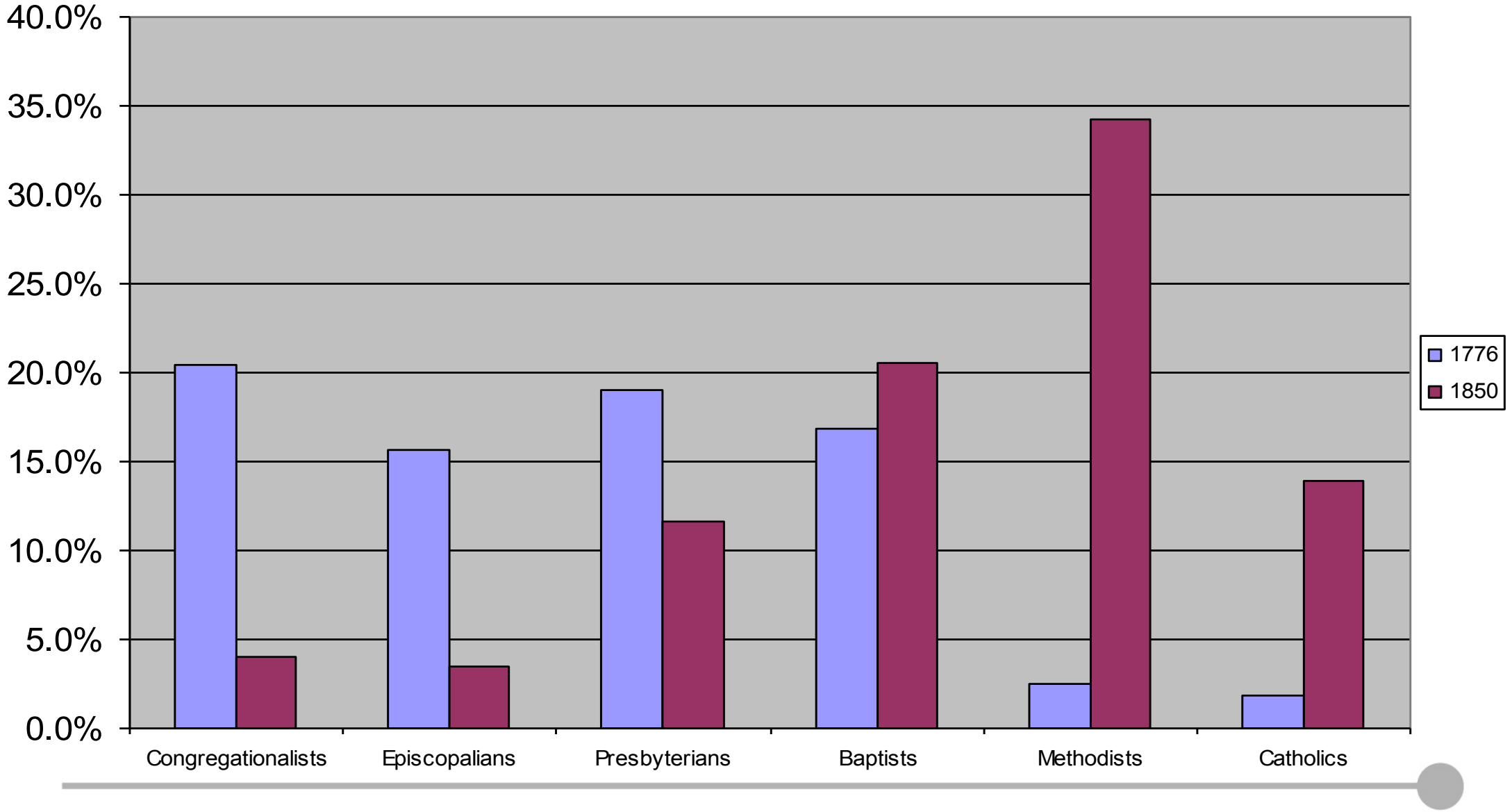
- Roger Finke and Rodney Stark (2005) have tried to explain what they call the "churching of America" – the paradox of growing US religiosity at a time of European secularization
- They attribute this to competition, and to the superior incentive structure of the more successful denominations

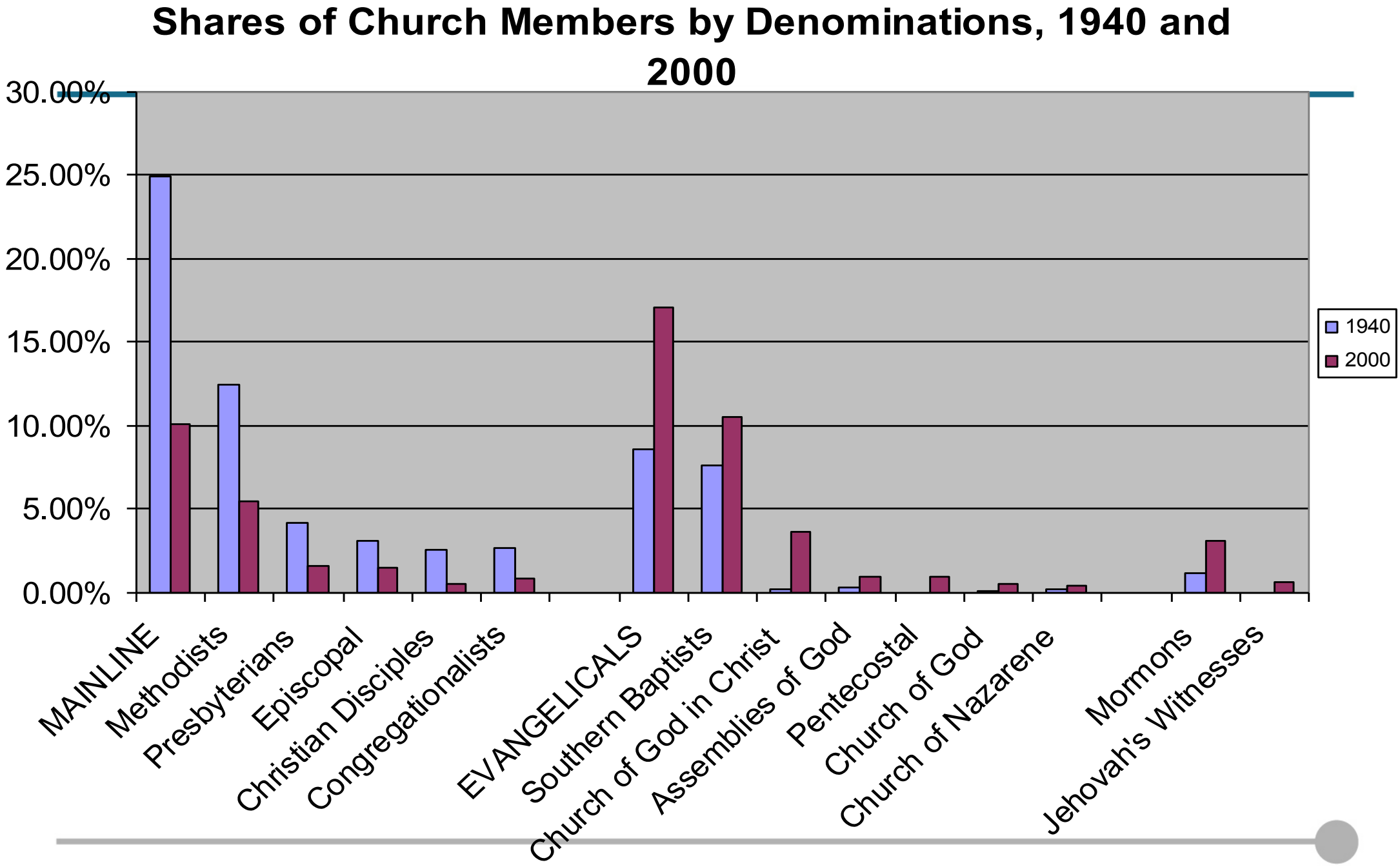
Rates of Religious Adherence, United States

(source: Finke and Stark, 2005)



Shares of Religious Adherents by Denomination, 1776 to 1850




Shares of Church Members by Denominations, 1940 and 2000
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
1940
2000
MAINLINE
Methodists
Presbyterians
Episcopal
Christian Disciples
Congregationalists
EVANGELICALS
Southern Baptists
Church of God in Christ
Assemblies of God
Pentecostal
Church of God
Church of Nazarene
Mormons
Jehovah's Witnesses

Average ministerial salary, US, 1906

Denomination	Average salary
Baptists	$536
Methodists	$784
Congregationalists	$1042
Presbyterians	$1177
Unitarians	$1653
Roman Catholics	$703
All	$663

Pluralism and Participation in US rural areas, 1923-25 (source: Finke & Stark 2005)

	Number of churches per 1000 population			
	One	Two	Three	Four
% belonging to a church	27.4	36.0	34.8	43.4
% enrolled in Sunday school	15.8	22.3	25.2	37.4
% with resident minister	55.7	46.3	38.7	30.1

The new evolutionary anthropology:

- Many contributors, including
  - Pascal Boyer (*Religion Explained*, 2002)
  - Scott Atran (*In Gods We Trust*, 2002)
  - Ara Norenzayan (*Big Gods*, 2013)
- Religions have an ethnographic structure
- They are counterintuitive but not arbitrarily so
- They are explicable by natural selection
- The aptitude for religion would have created cooperation for groups that were in competition with other groups, via “Big Gods”

The new economics of religion:

- Since the early 1990s, a growing convergence between rational-choice sociologists of religion (like Finke and Stark) and economists (Iannacone, Gruber…) that religions compete to satisfy demands
- Some contributors take demands as given
  - Some are intrinsic to religion
  - Some are also supplied by other institutions (eg finance, insurance)
- Others suppose religion satisfies a derived demand for institutions to reinforce social trust
- Some emphasize moral hazard aspects (cf Big Gods), others adverse selection

What services are religious institutions offering? The example of insurance

- Cross-country evidence for substitution between welfare spending and religiosity (Scheve-Stasavage, QJPS 2006; Gruber-Hungerman, JPubE 2007; Norenzayan, 2012)
- American households' religious participation helps smoothconsumption and happiness. (Dehejia et al., JPubE 2007)
- After suffering financial shocks, people in Indonesia were more likely to show increased piety. Smaller effect in households with easy access to credit. (Chen, JPE 2009). This does not show that piety is *motivated* by the desire for insurance - it could be for example a psychological response to distress (Clark-Lelkes (2005), Dehejia (JPE 2007))
- Extensive evidence of low take-up of formal insurance policies in developing countries: Gine et al (World Bank WP 2010); Cole et al (AEJ 2013); Carter et al (FERDI WP 2014).
- Risk primes matter: Zwane et al (PNAS, 2011). So does trust in the institution, and salience of payouts (Karlan et al, QJE 2014)

The contribution of religion to social trust (i):

- What is religion? Very difficult to define
- Three elements commonly cited – none either necessary or sufficient
  - Belief in the existence of invisible spirits that intervene causally in the world and that can be influenced by appropriate appeals from human subjects
  - Importance of ritual activities, both collective and individual
  - A distinction between the sacred and the profane

The contribution of religion to social trust (ii):

- Religions potentially have characteristics that enable their members to have more mutual trust
  - Opportunities to observe the behavior of others; sharing of information
  - Sanctions (exclusion etc) in case of breaches of trust
  - Faith as a signal of belief in the presence of supernatural norms and sanctions

The contribution of religion to social trust (iii):

- How to avoid hypocrisy? Two answers
  - Visible exclusion mechanisms (moral hazard)
  - Costly signaling (adverse selection)
- Signaling: the genuinely trustworthy must be more willing than others to pay the cost of religious membership
  - Payments for membership (tithes etc)
  - Behavioral restrictions (diet, lifestyle)
  - Supernatural beliefs, genuinely held and impacting individual decisions

The contribution of religion to social trust (iv):

- Empirical questions:
  - Can we tell genuine from non-genuine religious adherents?
  - Are genuine religious adherents more trustworthy than non-adherents? If so:
  - Does religion change individual behavior or does it attract more trustworthy people?
  - Are they more trustworthy towards everyone or just towards their co-religionists?

If religious adherents are more trustworthy than other people, four possible cases:

	Religions lead their adherents to behave in a more trustworthy way than they would otherwise	**Religions attract adherents who behave in a more trustowrthy way in most contexts**
Religious adherents are more trustworthy just towards co-religionists	Theory of clubs	Theory of coevolution of altruism and xenophobia
Religious adherents are more generally trustworthy, not just towards co-religionists	Theory of social norms sustained by natural or supernatural sanctions	Theory of costly signaling

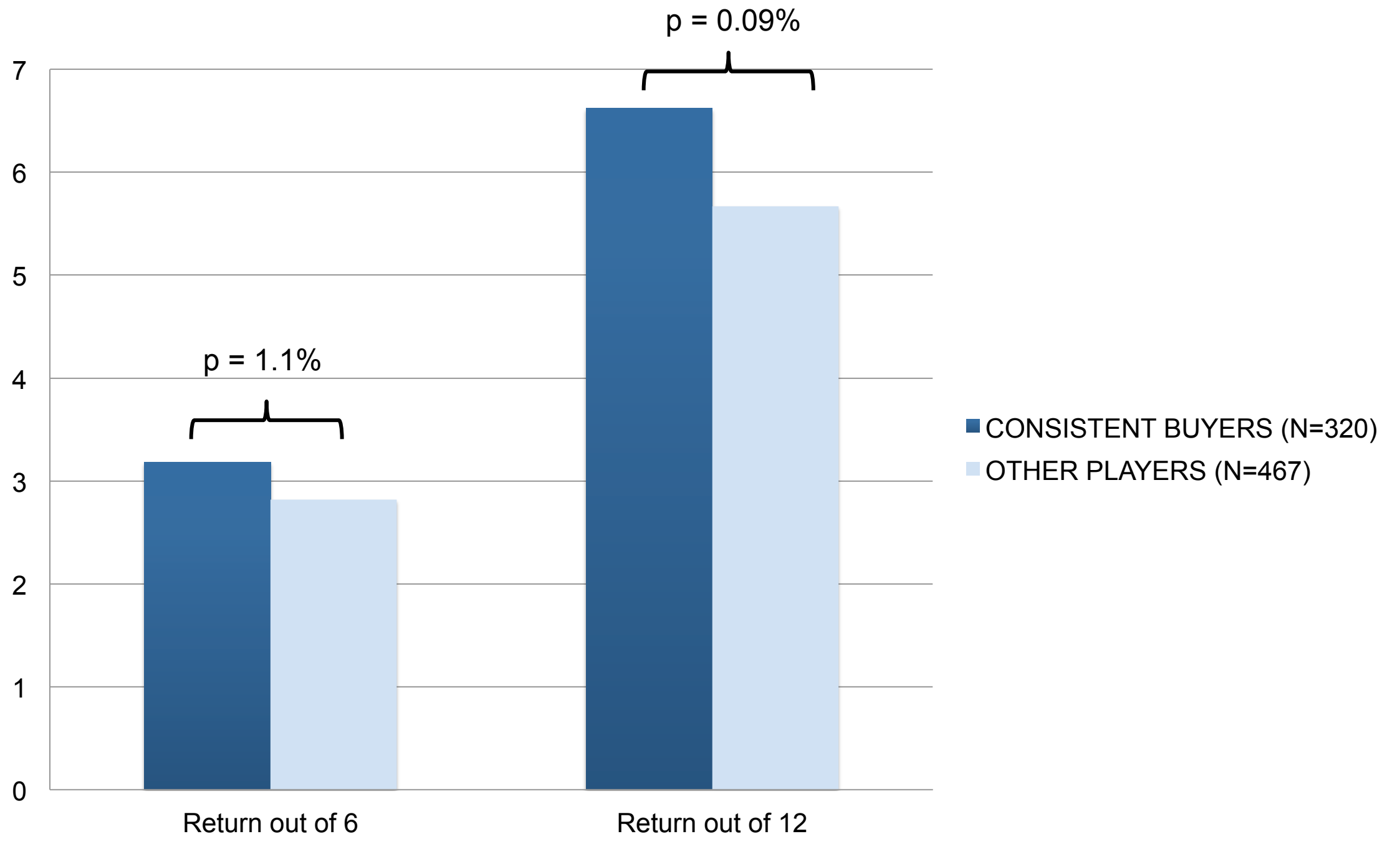
Religious organizations as multi-market platforms

- When religions offer services they are never just selling these services, in head-to-head competition with secular suppliers
- The literature on multi-sided markets has emphasized the role of platforms as putting different groups in contact with each other
- It's possible to see religious organizations as putting believers in touch with each other, using their demand for certains services of religion as credible signals of their trustworthiness

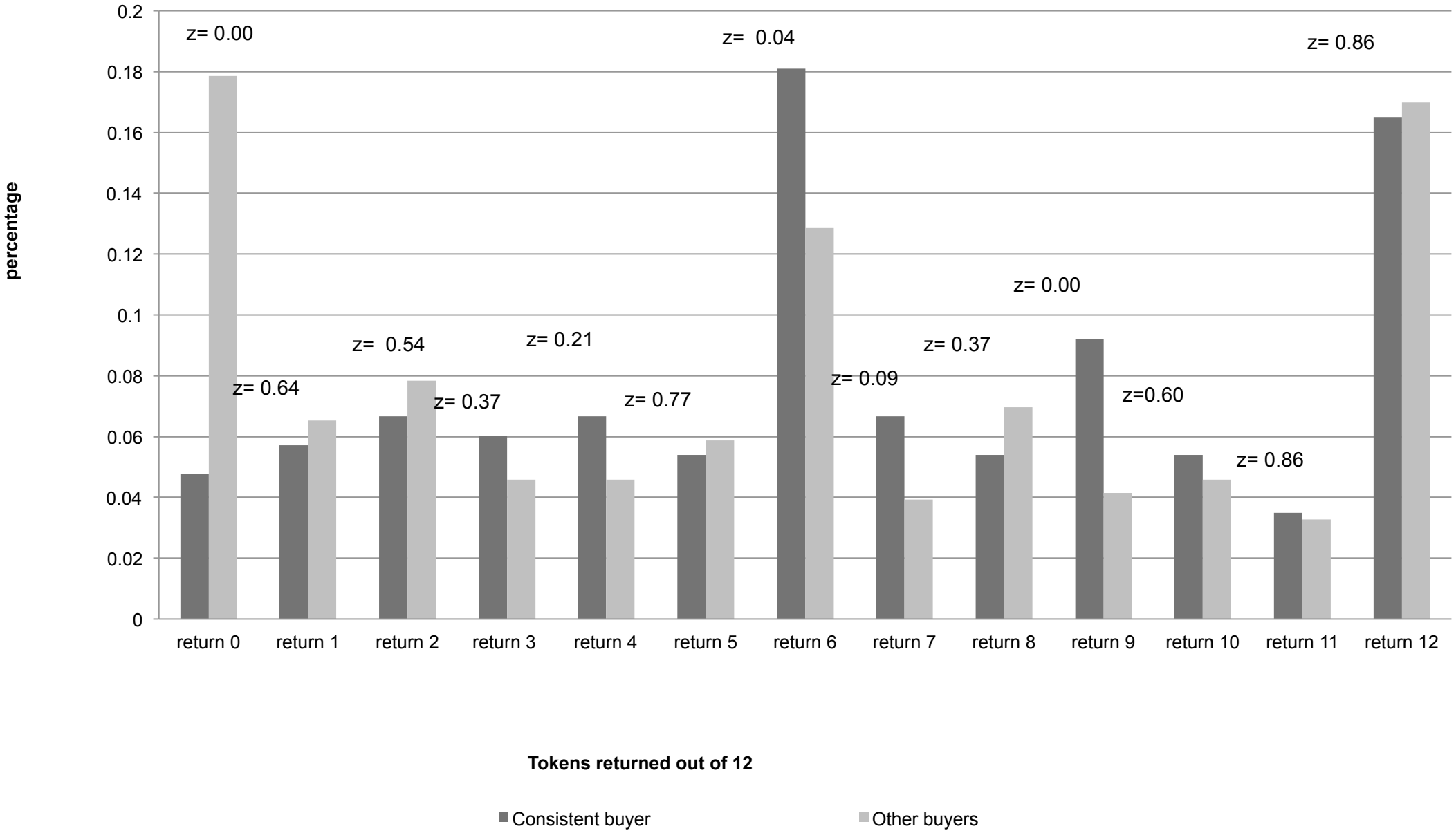
Auriol et al (2016): summary of findings:

- The experimental study
  - 774 individuals in Haiti play lotteries and trust games with and without religious images and can choose to pay anonymously for religious images
  - Subjects who show a “genuine” willingness to pay for images behave more reciprocally than others; there is no difference between denominations
  - Their greater reciprocity is not due to greater average altruism but specifically to a lower probability of “cheating”, ie to greater norm-observance
  - They are also less averse to risk, and more trusting of others
  - They reciprocate more to everyone and not just to other co-religionists
  - Their behavior in the laboratory shows recognizable links to their real-world behavior
  - Some evidence that more religious individuals are better able to borrow from others

Difference in reciprocity by image buyer type



Amounts gambled in neutral lottery by image buyer type



Back to Ghana…..

- In an experimental study with Emmanuelle Auriol, Jullie Lassébie, Amma Serwaah-Panin and Eva Raiber, we find some evidence for an insurance motive in giving to the church – subjects treated with a free funeral insurance policy gave less of their endowment to the church
- But they also gave less to both religious and secular charities – suggesting that the insurance is expected from God, not from the church
- Another motive is marriage: 27% of church population are single and expect to meet a spouse through church. 27% of married people met through church but 60% of singles expect to do so
- But they want to meet people who go to church for other reasons

The story so far:

- Even if religions offer important economic benefits they are never just offering economic benefits
- They connect different adherents with each other, with the willingness to subscribe to the religion's requirements serving a a costly signal of reliability
- So can we say more about what those costly signals consist in?
- Consider one form of religious commitment – to voting for religious politica parties – is this done for reasons of political preference or personal religiosity?
- The table shows responses to the World Values Survey

VARIABLES	(1)	(2)	(3)
	Support for Religious Parties		
PC of Religiosity	0.19***	0.09***	0.20***
	(0.01)	(0.02)	(0.03)
PC of Political & Economic Conservatism	0.03**	0.05**	0.02
	(0.01)	(0.02)	(0.02)
PC of Political & Social Conservatism	-0.01	-0.01	0.02
	(0.01)	(0.02)	(0.02)
Female	-0.01	-0.01	-0.02
	(0.03)	(0.05)	(0.06)
Education level	-0.03	0.07*	-0.01
	(0.02)	(0.04)	(0.04)
Marital Status	-0.01	-0.02	0.06
	(0.02)	(0.04)	(0.06)
Age	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)
Unemployed	0.17***	0.15*	0.26***
	(0.05)	(0.08)	(0.10)
Access to news	-0.01**	0.01*	-0.02***
	(0.00)	(0.01)	(0.01)
Socioeconomic status	0.02	0.00	-0.02
	(0.02)	(0.03)	(0.03)
Observations	36,476	11,003	7,600
Country fixed effects	Yes	Yes	Yes
Sample	All	Christians only	Muslims only

Notes: Ordered Probit regressions. All regressions include a constant term. Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Political parties and the motivation problem (I):

- "Why do people bother to vote?" is an old question, which does not mean it has received satisfactory answers
- Usual answer: voting is not costly, so there's not much to explain
- This won't do: you are more likely to have a fatal traffic accident on the way to the polling booth than to affect the outcome of the election
- The literature has tried various responses to this difficulty
  - Acevedo & Krueger (Political Psychology 2004) discuss "voter's illusion" and "belief in personal relevance"
  - "Social projection" theory (Robbins & Krueger, Personality & Social Psych. Review 2005) said to be asymmetric between ingroups and outgroups
  - Fowler & Kam (Journal of Politics 2007) use directed altruism to explain turnout

Political parties and the motivation problem (II):

- Explanations in terms of altruism are incomplete – why do voters choose the particular objects of their altruism?
- How to explain bandwagon effects, or idea that votes for losing parties are “wasted”?
- An answer has to involve the idea that voting entitles the voter to share in the collective benefits of winning (”we won!”)
- When you choose to support a party you appropriate to yourself a share of the group benefit – you don’t make the calculation in terms of the marginal return to your decision
- All of this suggests strong forces for social identification

A missing component – narratives and causal inference

- All of these stories rely on improbable causal inferences about the consequences of individual actions
- These inferences are often facilitated by narrative; formerly adaptive narratives bias our strategic inferences today
- Some formerly adaptive narrative types and their key features
- Existing evidence for parts of the argument
- A simple model

What is narrative?

- A report (in words or images or both) of a sequence of events, presented so as to imply a connection (often but not always causal) between them
- As used here: an implied causal connection between an action and an outcome, presented by a ***story*** in which a ***character*** takes the ***action*** and the ***outcome*** ensues
- Not to be confused with “narrative” in the sense of “pretext”, “excuse” or “justification”
- Means more than just solicitation via human characters

How formerly adaptive narratives bias our strategic inferences today (I)

- Preliterate foraging and agricultural societies used narratives to convey important information about adaptive behavior in the context of environmental and social dangers and social norms
- Storytelling served both to *reinforce* and *apply* narratives
- We have inherited cognitive dispositions to process and apply either
  - Narratives from a specific, prehistorically adaptive set
  - Whichever narratives are sufficiently reinforced in our culture at a sufficiently young age

How formerly adaptive narratives bias our strategic inferences today (II)

- The narratives we reinforce and apply in modern societies are disproportionately composed of those that
  - Are inherited by oral or literate transmission from preliterate societies
  - Were once adaptive in preliterate societies (where outside options were limited) but are less adaptive or positively maladaptive today
- These narratives predispose us to give higher credence to some strategic hypotheses than Bayesian rationality would warrant
- Other agents ("narrative entrepreneurs") use these narratives to influence our actions to their own advantage – in a process that is distinct from ordinary strategic signaling

Some formerly adaptive narrative types

- **Heroic**: an individual refuses to give up in the face of adverse environmental shocks;
- **Courtship**: a person refuses to take no for an answer from the object of their affection and is ultimately rewarded with acceptance;
- **Betrayal**: cheating on one's friends brings inevitably a large penalty;
- **Redemption**: great sacrifices win back the approval of one's group or of a powerful individual, such as a person previously cheated;
- **Tough love**: past generosity towards someone (such as an adolescent child or other dependent relative) is abused and the generous individual has to reject further demands for the receiver's own good.

Key features of these narrative types

- They mostly assume that
  - Agents' outside options are very limited, so giving up is very costly, possibly even fatal
  - Agents' actions cannot be kept hidden from the community for long
  - Gender norms are unequal so that refusals do not necessarily have to be respected
  - Apparent generosity is just that – not self-interest in disguise
- Modern life is no longer exactly like that, except in certain areas (cancer treatments, politicians' sex lives...)
- But narratives continue to fascinate, in politics, business, love...

Existing evidence for parts of the argument (I)

- For inherited cognitive dispositions:
  - The Wason selection task (Cosmides & Tooby 1992)
  - The conjunction fallacy (Kahneman & Tversky 1982):
- For inherited transmission of particular narratives from preliterate societies
  - Da Silva & Tehrani (Royal Society Open Science 2016): “Comparative phylogenetic analyses uncover the ancient roots of Indo-European folktales”
- Other corroborative evidence:
  - Baretta et all (Psychol. Neurosci. 2009): “Inference making while reading narrative and expository texts: an ERP study ”

The conjunction fallacy

- “Linda is 31 years old, single, outspoken and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations”.

- Which is more probable?
  - Linda is a bank teller
  - Linda is a bank teller and is active in the feminist movement

- Comes in intrasubjective version (respondents faced with both options ascribe higher probability to the second) and intersubjective version (subjects faced with second option ascribe higher probability then those faced with the first); only intersubjective version needed for our argument

Political parties use narratives too

- Struggle, redemption, tough love…
- These narratives aim to
  - Persuade supporters to invest in the party (by voting or by more active effort)
  - Legitimize certain policy choices over others
- The challenge for social science is to study these scientifically and not just anecdotally

Conclusions

- Worshippers' decisions about giving money to the Church, like policymakers' decisions about how to manage the Greek crisis, are complex challenges in which statistical inference is difficult
- In both domains the scope for narrative inference is high, and the field wide open to narrative entrepreneurs (of redemption narratives in Ghana and tough love narratives in Greece)
- While inherited narratives seem to exercize a continued fascination for us today, the mechanisms by which they operate are not well understood

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The Wason Selection Task

A scientist is investigating a hypothesis that states "people with two X chromosomes have mind recognition skills that score above 25 on the Baron Cohen test". She has information about the following groups, who are independent samples of the population. In each case she either

a) knows the chromosomes of the individuals and can investigate to test their mind recognition skills; or

b) knows their mind recognition skills, and can investigate their chromosomes

She wants to find out whether any groups violate this hypothesis

Group A: Two X chromosomes	Group B: One X chromosome	Group C: mind recognition skills >25	Group D: Mind recognition Skills <25

Which groups should she investigate?

A government passes a law stating that "households that own a television must have a licence".
It has information about the following groups, who are independent samples of the population. In each case it either
a) knows whether they have a television, and can investigate to see whether they have a licence; or
b) knows whether they have a licence, and can investigate to see whether they have a television

It wants to fine any people who have broken this law

Group A: own a television	Group B: don't own a television	Group C: have a licence	Group D: don't have a licence

Which groups should it investigate?

A government is investigating the state of digital connectedness of its population, and specifically wishes to test the hypothesis that television users also have a broadband internet connection.
It has information about the following groups, who are independent samples of the population. In each case it either
a) knows whether they have a television, and can investigate to see whether they have a broadband internet connection; or
b) knows whether they have a broadband internet connection, and can investigate to see whether they have a television

It wants to find out whether any groups violate this hypothesis

Group A: own a television	Group B: don't own a television	Group C: have internet	Group D: don't have internet

Which groups should it investigate?

Numbers of respondents on Wason selection task (2013)

	Checked A	Checked B	Checked C	Checked D
Baron-Cohen Test	59	16	38	42
Digital Test	35	7	17	13
TV Test	37	2	5	28