Divine Restraint: An experimental analysis of religious preference and intertemporal discounting

Jeremy Thornton, Brock School of Business - Samford University
“Having, First, gained all you can, and, Secondly saved all you can, Then give all you can.”

John Wesley, 1840
Founder of the Methodist Church
A paradox. Does religious belief make you more prosperous?
Our question: Does religious belief promote delayed gratification?
What is time preference?
Why would we expect religion to influence time preference?

1. Religion can improve self-control (Paglieri F., Borghi, Colzato, Hommel, & Scorolli, 2013; McCullough & Willoughby, 2009)

2. Alter the relative value of material and social investments (Smith & Faris, 2005; Vaisey & Lizardo, 2010)

3. Develop skills to lower the cost of investment (Regnerus, 2003)
Some other studies on religion and time preference:

Religious households consider themselves more trusting, stronger bequest motives, and longer planning horizons. *Oxford Economic Papers* (Renneboog & Spaenjers, 2011)

Christian religions are positively associated with attitudes conducive to economic growth *Journal of Monetary Economics* (Guiso et. al., 2003)

The impact of religion on time preference varies by religious tradition. These differences were attributable to religious upbringing rather than cultural or genetic differences. *Psychological Research* Paglieri et. al. (2013)
This paper contributes to the literature in the following ways:

1. We randomly apply religious salience through the use of a “prime”. <More on this later>

2. The study uses monetary payoffs (along with hypotheticals) to elicit discount rates from test subjects.

3. Using the relatively new online platform, Mechanical Turk, we are able to construct a large and diverse sample—relative to previous studies.
How can you test time preference?

Would you prefer:
- $24 today
- $35 in 29 days

Would you prefer:
- $33 today
- $80 on 14 days
How do we get our sample?
Sample: n=1000
Each subject is paid $.50 with an opportunity for increased payments.
Motivation

Theory

Experiment

Results

Conclusions
What about those primes?

**Religious Prime**

From memory, name as many of the 10 Commandments as you are able.

**Control Prime**

List the last 10 books you read or plan to read.
Religious Prime
n=500
Experiment

Control Prime
N=500
Experiment

Survey Flow

Repeat questionnaire with opposite prime
Demographic Questions

Motivation
Theory
Experiment
Results
Conclusions
<table>
<thead>
<tr>
<th>Treatments</th>
<th>Freq.</th>
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Discount Rates by Religious Preference

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<th>SD k</th>
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<td>Hindu</td>
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<tr>
<td>Other Christian</td>
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<td>0.35</td>
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<tr>
<td>Jewish</td>
<td>0.17</td>
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<td>Catholic</td>
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<td>Other</td>
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<td>Orthodox</td>
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</table>
Motivation

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Conclusions
Adjusted Predictions of reg_pref with 95% CIs
abs_lkhat by religious preference and religious attendance

- Buddhist
- Catholic
- Hindu
- Jewish
- Mormon
- Muslim
- Orthodox
- Protestant
- Sikh
- Agnostic
- Atheist
- Other
- Other Christian

- relig_attend_yes=0
- relig_attend_yes=1
abs_lkhat by Religious Preference and Importance

-5 0 5 10

-5 0 5 10

Buddhist Catholic Hindu Jewish Mormon Muslim Orthodox Protestant Sikh Agnostic Atheist Other Other Christian

relig_importance_yes=0  relig_importance_yes=1
Margins over Religious Preference and Religious Treatment

- Buddhist
- Catholic
- Hindu
- Jewish
- Mormon
- Muslim
- Orthodox
- Protestant
- Sikh
- Agnostic
- Atheist
- Other
- Other Christian

Overall treatment values:
- overall_treat=0
- overall_treat=1

Linear prediction: abs_lkhat

Confidence intervals and group comparisons.
Treatment Effects over Religious Preference if Religious Attendance = High

- Overall treat=0
- Overall treat=1

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Treatment Effects over Religious Preference if Religious Importance = High

- Buddhist
- Catholic
- Hindu
- Jewish
- Mormon
- Muslim
- Orthodox
- Protestant
- Sikh
- Agnostic
- Atheist
- Other
- Other Christian

- overall_treat=0
- overall_treat=1
Conclusions:

• There is strong support in the literature that religious belief should be positively associated with increased self control.

• Other papers (which rely on surveys or smaller samples) have found relatively modest confirmation of this hypothesis.

• Our approach (with larger samples and an experimental payoff design) found no impact on religious belief on subjects discount rates.
Jeremy Thornton

Dwight Moody Beeson Chair of Business
Associate Professor of Economics
Brock School of Business
Samford University
jpthornt@samford.edu