

# Cognitive liberalism and actively open-minded thinking

Jonathan Baron<sup>1</sup>  
and various collaborators<sup>2</sup>

October 28, 2020

<http://finzi.psych.upenn.edu/~baron/talks/bgu.pdf>

---

<sup>1</sup><http://www.sas.upenn.edu/~baron>. Email. [baron@upenn.edu](mailto:baron@upenn.edu)..

<sup>2</sup>Sydney Scott, Emlen Metz, Katrina Fincher, Onurcan Yilmaz, Ozan Isler, Derrick High II, Ilana Ritov.

# Overview

- ▶ Utilitarian virtues and vices of citizenship: cosmopolitanism vs. parochialism, role-taking vs. moralism, actively open-minded thinking vs. myside bias and overconfidence
- ▶ Positive manifold with other traits: utilitarianism, religious skepticism, social liberalism, belief in science
- ▶ Other evidence of positive manifold
- ▶ Possible origins: cultural heterogeneity, individual development
- ▶ Time-travel study
- ▶ Conclusion

# Why study citizenship?

Many world problems arise from poor government: non-functioning government (including world government), populism, corruption, poor policies, isolationism.

This occurs in democracies and quasi-democracies.

Thus the bad decisions of citizens hurt other people; hence this is a moral issue, like donating to charity. Not just voting, but that is an example.

But voting, unlike donating to charity, is (usually) cheap.

If everyone voted for whatever is best on the whole for the world, it might be more likely to happen.

## Three related utilitarian virtues/vices of good/bad citizens

**Cosmopolitanism** is a continuum, from pure self-interest voting to concern for present and future humanity. In the middle is parochialism, which is voting for an in-group, even when out-group harm exceeds in-group benefit.

Opposition to **moralism**, the willingness to impose on others beliefs that cannot be defended in terms of their goals, which often come from attachment to pre-Enlightenment traditions.

**Actively open-minded thinking (AOT)** includes active search for reasons why a pet idea might be wrong, fair inference from what is found, and confidence that is based on the strength or weakness of the evidence. AOT is required for individual thinking, for group discussion, and for evaluation of authorities.

## Cosmopolitanism: Features of political participation (in a democratic state)

- ▶ Usually much less costly than spontaneous cooperation in a social dilemma.
- ▶ Not cost-effective in advancing self-interest (Downs).
- ▶ Often more cost-effective than charity in doing good for others, especially with large numbers of affected others, where the large number outweighs the small influence of one citizen.
- ▶ Cost-effectiveness increases with number affected, hence parochial voting (parochial altruism) is more effective than self-interest voting but less effective than cosmopolitan voting.

## Expected utility of voting

$$\sim \text{Effect of winning} \cdot \frac{\text{Number considered (N)}}{\text{Number of voters (V)}}$$

Number considered can be:

**Self:** a few (usually includes family).

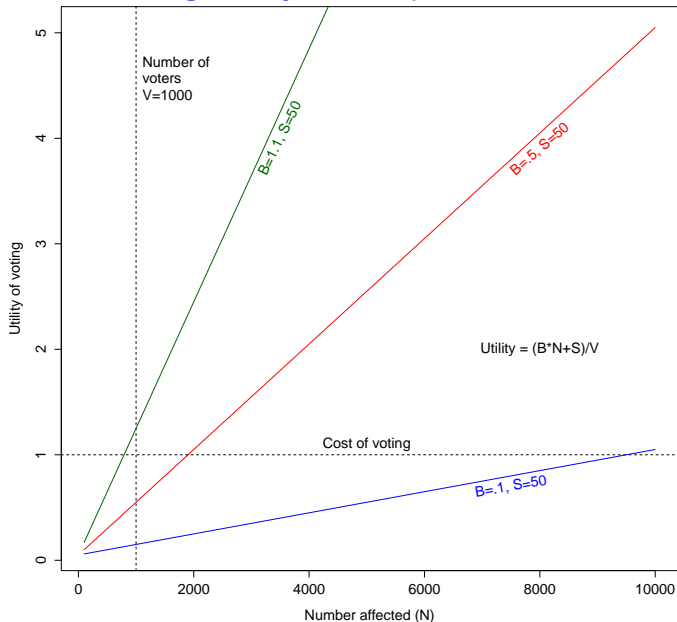
**Group:** on the order of the number of voters, or much less (unions, etc.).

**Humanity:** many times the number of voters, includes world and people in the future.

Voting is highly inefficient as a way of pursuing self-interest, and pretty inefficient for pursuing parochial group interest. But it is worthwhile if the voter considers humanity (Edlin et al., 2007, 2008).

Democracy is a design to amplify altruistic concerns for large number of others. A utilitarian voter would vote for what is best for all in the long run.

## EU of voting: Why cosmopolitanism is utilitarian.



B is benefit of winning to each affected person

S is benefit to self

V is number of voters (in-group)

N is number affected

Self-interest in lower left corner

Parochial interest limited by vertical line

Cosmopolitan interest increases with N

## Orwell on nationalism

“By nationalism I mean first of all the habit of assuming that human beings can be classified like insects and that whole blocks of millions or tens of millions of people can be confidently labelled ‘good’ or ‘bad’. But secondly — and this is much more important — I mean the habit of identifying oneself with a single nation or other unit, placing it beyond good and evil and recognising no other duty than that of advancing its interests.” George Orwell (1945)



# The duty to support nationalistic policies

Jonathan Baron, Ilana Ritov, Joshua Greene

Citizens perceive a duty to support policies that benefit their nation, even when they themselves judge that the consequences of the policies will be worse on the whole, taking outsiders into account.

When asked for reasons, many subjects felt an obligation to help their fellow citizens before others, and they also thought that they owed something to their nation, in return for what it did for them.

In an experiment with Israeli and Palestinian students, group membership affected both perceived overall consequences and duty.

Subjects still showed a greater group duty than predicted by perceived consequences.

## Experiment 3: Israelis and Palestinians

Subjects classified by preferred language: 57 Hebrew (29 female, 28 male), 54 Arabic (28 female, 22 male), and 11 “other”. Proposals:

- ▶ All parts of Jerusalem will remain under Israeli control, and the Arab neighborhoods will have some municipal autonomy.
- ▶ Jerusalem will be the capital of two states: The Jewish neighborhoods will be part of Israel, the Arab neighborhoods will be part of Palestine. The old city will be governed by an international organization, and will remain open to all.
- ▶ Israel will dismantle all settlements except for the big clusters (Maale Edomim, Ariel, Gush Etzion, and Beitar-Ilit), establishing a new borderline. A free and safe passage for Palestinians will be established between the West Bank and Gaza. The Palestinian state will recognize the new border.
- ▶ Israel will withdraw to the 67 boarder except for a few changes resulting from agreed swaps. Palestinians will give up the right of return to the area inside Israel.
- ▶ ...

# Questions

- Icons** How will this agreement affect Israel, when you take into account both the positive and the negative consequences?
- Pcons** How will this agreement affect the Palestinians, when you take into account both the positive and the negative consequences?
- Cons** What will the overall effect of this agreement be, when you take into account its effect on both Israel and the Palestinians?
- Iduty** What in your opinion is the duty of an Israeli, concerning active support for or active opposition to this agreement?
- Pduty** What in your opinion is the duty of a a Palestinian, concerning active support for or active opposition to this agreement?

## Results

Subjects see a duty to support proposals on their side (and oppose proposals on the other side) even when their duty is discrepant with their own judgment of overall consequences.

For example, the duty on one's own side ( $I_{duty}$  or  $P_{duty}$ ) was correlated with direction of difference between consequences on one's own side ( $I_{cons}$  or  $P_{cons}$ ) and overall consequences ( $Cons$ ) (regression coefficient .29).

However, in additional analyses, although each side weights their own side more in judging overall consequences, each gives some weight to the other side. Optimistically, this opens the door to negotiation (at least among students at an Israeli university).

## Some cases

Repeal the free-trade agreement with Mexico (part of NAFTA).

Repeal the free-trade agreement with Canada (part of NAFTA).

Reduce by 50% the amount of U.S. oil exported to other countries.

Increase by 50% the number of guards on the U.S./Mexican border.

Require employers to ask for proof of citizenship or legal immigrant status.

Reduce the number of Chinese students allowed to enter Ph.D. programs in the U.S.

Reduce the U.S. contribution to United Nations peacekeeping by 50%.

Ratify the proposed free-trade agreement with Colombia.

Eliminate tariffs on all goods produced in Sub-Saharan African countries.

Eliminate quotas on sugar imports, allowing more foreign sugar to enter the U.S.

Eliminate tariffs on ethanol from Brazil (which is cheaper than that produced by U.S. farmers).

## Reasons for duty (Expt. 2)

Which of the following is true about duty in this case?

- ▶ **Citizens have a duty to help their nation in return for what their nation does for them.**
- ▶ **Citizens have a duty to help their fellow citizens before helping others.**
- ▶ People have a duty to help those in need, wherever they are.
- ▶ People have a duty to help citizens of other nations when their own governments cannot or will not provide the needed help.
- ▶ *A citizen has a duty to support policies that are best for him or her personally.*

Main reasons are first two, in bold.

## Anti-moralism: A virtue of good citizens

In June, 2006, then Senator Barak Obama said something like the following (from USA Today, July 10)): “To say that men and women should not inject their ‘personal morality’ into public policy debates is a practical absurdity; our law is by definition a codification of morality. ... [But d]emocracy demands that the religiously motivated translate their concerns into universal, rather than religion-specific, values. It requires that their proposals be subject to argument, and amenable to reason. **If I am opposed to abortion for religious reasons but seek to pass a law banning the practice, I cannot simply point to the teachings of my church. I have to explain why abortion violates some principle that is accessible to people of all faiths, including those with no faith at all.**”

## Moralistic values: Categorization of goals according to Baron (2003)

---

		<i>Goals ... for your behavior</i>	<i>for others' behavior/goals</i>
<i>That are ...</i>	<i>dependent on others' goals</i>	Altruistic	Moral
	<i>independent of others' goals</i>	Self-Interested	Moralistic

---



## Example of question to assess moralistic values

- ▶ testing a fetus for IQ genes and aborting it if its expected IQ is below average
- ▶ cloning someone with desired traits so that these may be passed on, such as an athletic champion or brilliant scientist
- ▶ modifying the genes of an embryo so that, when it is born, it will have a higher IQ
- ▶ giving a drug (with no side effects) to enhance school performance of normal children

Should the government allow this to be done?

This should be allowed, so long as other laws are followed. (40%)

.. should sometimes be allowed, with safeguards against abuse. (32%)

.. should never be allowed, no matter how great the need. (28%)

## Further questions

If the circumstances were (or are) present so that the consequences of allowing this were better than the consequences of banning it, should it be allowed?

Yes. (71%)      No. (20%)

I cannot imagine this. (9%)

If these circumstances were present, and if almost everyone in a nation thought that the behavior should be allowed, should it be allowed in that nation under these circumstances?

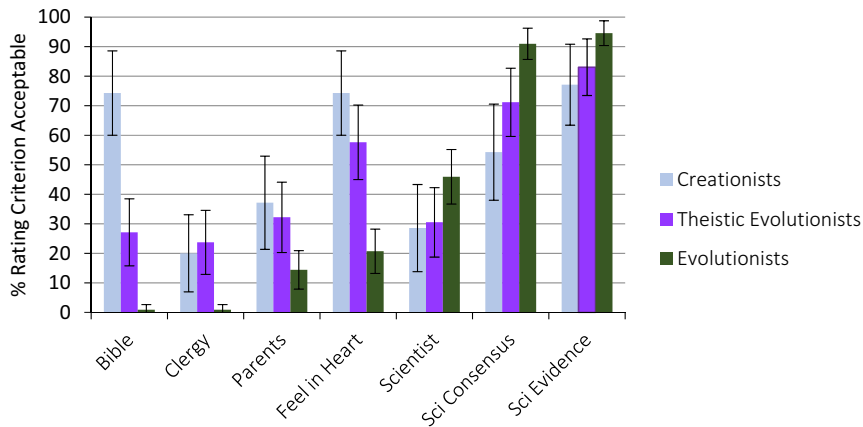
Yes, allowed. (72%)      No, banned. (21%)

I cannot imagine this. (6%)

## Properties of AOT: A standard of good thinking

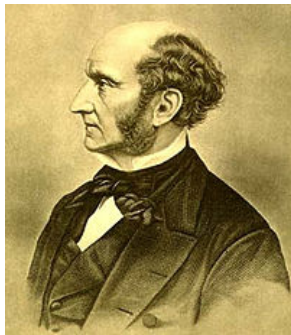
- ▶ People tend to follow their own standards.
- ▶ Design to optimize search and inference, in general.
- ▶ Objects can be **possibilities** (options, candidate conclusions), **evidence** (arguments), or **goals** (values, criteria).
- ▶ About fairness, not just amount.
- ▶ Takes into account the cost of thinking. Allows reliance on others. Hence is different from reflection/impulsivity.
- ▶ Applied to others (authorities), as well as self. We trust others to tell us what to believe.
- ▶ Applies to confidence, not just conclusions. Confidence can be justifiably low.
- ▶ Leads to better decisions.
- ▶ Main departures for individual differences: *Myside bias* (Perkins, 2019) and *Overconfidence*.

# Metz et al. (Cog. Sci. 2018) personal standards for belief



## Mill on myside bias and AOT as a norm

“In the case of any person whose judgment is really deserving of confidence, how has it become so? Because he has kept his mind open to criticism of his opinions and conduct. Because it has been his practice to listen to all that could be said against him; to profit by as much of it as was just, and expound to himself . . . the fallacy of what was fallacious.” J. S. Mill, *On liberty*



## AOT scale: Acceptance of norms for thinking

- ▶ Willingness to be convinced by opposing arguments is a sign of good character.
- ▶ People should take into consideration evidence that goes against conclusions they favor.
- ▶ Being undecided or unsure is the result of muddled thinking. (-)
- ▶ People should revise their conclusions in response to relevant new information.
- ▶ Changing your mind is a sign of weakness. (-)
- ▶ People should search actively for reasons why they might be wrong.
- ▶ It is OK to ignore evidence against your established beliefs. (-)
- ▶ It is important to be loyal to your beliefs even when evidence is brought to bear against them. (-)
- ▶ There is nothing wrong with being undecided about many issues.
- ▶ When faced with a puzzling question, we should try to consider more than one possible answer before reaching a conclusion.

## Some correlations of AOT scale (including similar scales)

- ▶ predicts judgments of others' thinking (Baron, 1995).
- ▶  $-.61$  ( $-.82$  corrected for attenuation) with belief in divine-command theory (Piazza & Landy, 2013).
- ▶  $\sim .3$  (corrected) with utilitarian responding in moral dilemmas (Baron et al., 2015).
- ▶  $-.27$  ( $-.41$ ) with political conservatism in a study where CRT correlated 0 (Kahan & Corbin, 2016).
- ▶  $-.49$  with supernatural religious beliefs (Pennycook et al., 2014).
- ▶  $-.44$  with superstitious beliefs (Svedholm-Häkkinen & Lindeman (2017)).
- ▶ lower negative correlations with belief in conspiracy theories and paranormal beliefs.

Note: Correlations with the CRT were always lower.

## Positive manifold? - Hence “cognitive liberalism”

Everything correlates with everything (like IQ tests):

- ▶ Parochialism in the form of nationalism, e.g., opposition to immigration.
- ▶ Social conservatism.
- ▶ Religion, especially Divine Command Theory, the belief that we must accept the commands of God, because we are incapable of reasoning ourselves.
- ▶ Deontology (morality based on rules, rights and duties) as opposed to utilitarianism (based on consequences for all affected).
- ▶ Acceptance of actively open-minded thinking as a standard.
- ▶ Trust in (good) science.



# Cosmopolitanism: British Election Survey (wave 8, 2016)

Selected items for parochialism measure:

The UK should help other EU members in times of crisis

Should EU citizens be able to claim child-benefit for children not in the UK

Good or bad for Britain: Allowing the free movement of workers within Europe

Allow more asylum seekers to come to UK

Britain should allow more workers from other EU countries

Britain should allow more workers from outside the EU

Allow more student to come to UK

Allow more families of people who already live here to come to UK

Self: Allow more or fewer immigrants

EU Referendum vote intention (unqueezed)

# Correlations from British Election Survey



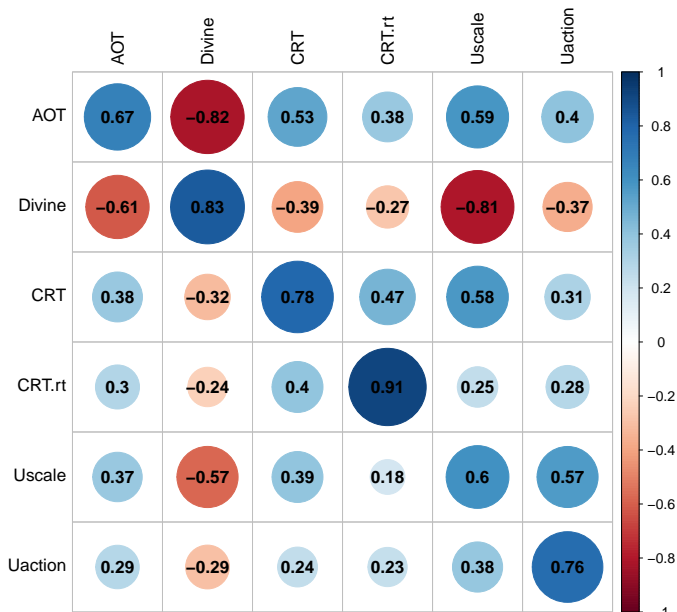
## Other correlations of AOT scale (including similar scales)

- ▶ predicts judgments of others' thinking (Baron, 1995).
- ▶  $-.61$  ( $-.82$  corrected for attenuation) with belief in divine-command theory (Piazza & Landy, 2013).
- ▶  $\sim .3$  (corrected) with utilitarian responding in moral dilemmas (Baron et al., 2015).
- ▶ negative correlation with political conservatism.
- ▶  $-.49$  with supernatural religious beliefs (Pennycook et al., 2014).
- ▶  $-.44$  with superstitious beliefs (Svedholm-Häkkinen & Lindeman (2017)).
- ▶ lower negative correlations with belief in conspiracy theories and paranormal beliefs.

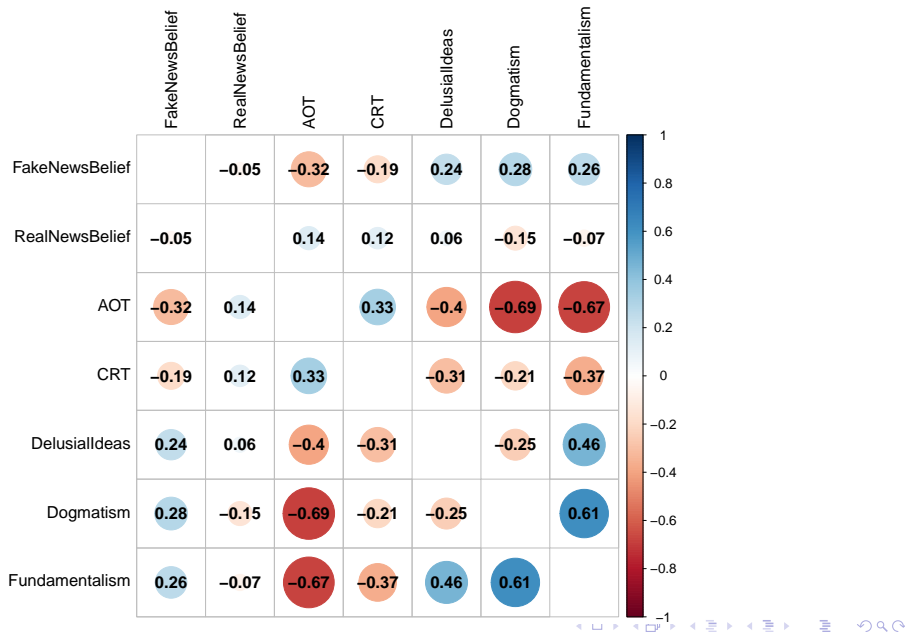
## Correlations with Cognitive Reflection Test (CRT) are lower

A bat and ball cost \$1.20 together. The bat costs \$1.00 more than the ball. How much does the ball cost?  
(This measures one aspect of AOT, looking for counter-evidence.)

# Correlations from Baron et al. 2015, Study 4



# Correlations from Bronstein et al., JDM 2018



## Correlation of AOT scale with myside bias in political statements, Study 1 (with Derrick High II)

8 pairs of items differing in recognition of otherside arguments, 100 Ss:

- ▶ **Type1** It would be flat out irresponsible to oppose tuition-free access to community or technical college programs — it will create a wave of new workers prepared for the 21st century economy.
- ▶ **Type2** Tuition-free access to community or technical college programs will create a wave of new workers prepared for the 21st century economy. Yes, it is expensive, but it is worth the price.

*How much can you trust the judgment of the person who said this?*  
(4-point scale)

$r = .35$  between AOT and the Type2-Type1 difference

*How fairly has the speaker thought about the topic?* (4-point scale)

$r = .37$  between AOT and the Type2-Type1 difference

## Correlation of AOT scale with overconfidence of statements, Study 2

14 pairs of items differing in unjustified high confidence, 100 Ss:

- ▶ "Those tremors don't mean anything. An earthquake won't happen. (scientist)"
- ▶ "Those tremors probably don't mean anything. An earthquake is unlikely. (scientist)"

Trust: "Consider someone who made this statement. How would this affect your willingness to rely on what this person says? (The type of person is in parentheses.)"

Difference between ratings of two types correlated .36 with AOT.

Credibility: "How credible is each statement by itself, when made by the source in parentheses?"

Difference correlated .47 with AOT.



## Two possible sources of positive manifold

**Cultural diversity.** Pre-Enlightenment and post-Enlightenment cultures in the same population. Older, traditional beliefs and values associated with (but not limited to) religion vs. modern liberalism (tolerance, respect for science, etc.).

**Different standards for thinking.** People differ (for many reasons, including their cultural background) in the way they reach conclusions, in part because of their norms and beliefs about how they *should* reach conclusions, and these differences affect their beliefs.

Thus, culture can affect each measure directly, or indirectly through norms for thinking, which have other determinants.

And these variables can affect each other, e.g., utilitarian standards can increase cosmopolitanism.

# Time travel experiment (with Ozan Isler, Onurcan Yılmaz)

This is a study of how people's attitudes change over their lives. Unfortunately, we do not yet have a time-travel machine that will take you back to the time when you were 12 years old. So we are asking you to do your best to reflect on how you came to hold your current attitudes on a number of abstract issues.

There are various influences that can cause people to change their views. Sometimes they have an effect and sometimes they do not. But we want to know about each influence that occurred and could have affected your views, whether it had an effect or not. For example, someone may have tried to persuade you of a different view, and failed. Or you may have considered a different view, on your own, but ultimately decided that your original view was best.

## 28 items in 5 scales (R=reversed): Utilitarianism items

[Completely disagree 1 2 3 4 5 Completely agree]

- ▶ **Uscale.** When a moral rule leads to outcomes that are worse than those from breaking the rule, we should **follow** the rule. (R)
- ▶ When a moral rule leads to outcomes that are worse than those from breaking the rule, we should **break** the rule.
- ▶ When two options harm other people in the same ways, we should choose the option that harms fewer people.
- ▶ When some action causes harm to some people but prevents the same harm to many more people, we should act.
- ▶ It is morally wrong to harm some people in order to prevent the same harm to more people. (R)
- ▶ Sometimes we should follow moral rules that prevent us from doing what is best on the whole. (R)

## Divine command and religion items

- ▶ **DivineCT.** The truth about morality is revealed only by God.
- ▶ Acts that are immoral are immoral because God forbids them.
- ▶ We don't need to try to figure out what is right and wrong, the answers have already been given to us by God.
- ▶ **Relig.** There is a god that truly exists.
- ▶ God, and gods, do not exist, despite what people believe.
- ▶ I consider myself a religious person.

## Political liberalism items

- ▶ **Liberal** I am reluctant to make any large-scale changes to the social order. (R)
- ▶ I favor stability in society, even if there seem to be problems with the current system. (R)
- ▶ Society should be quicker to throw out old ideas and traditions and to adopt new thinking and customs.
- ▶ Traditional values, customs, and morality have a lot wrong with them.
- ▶ On SOCIAL matters, my political orientation is on the right (conservative) as opposed to left. (Here, 'agree' means that you are right wing, and 'disagree' means that you are left wing.) (R)
- ▶ On ECONOMIC matters, my political orientation is on the right (conservative) as opposed to left. (R)

## Final items: AOT scale (again)

- ▶ Willingness to be convinced by opposing arguments is a sign of good character.
- ▶ People should take into consideration evidence that goes against conclusions they favor.
- ▶ Being undecided or unsure is the result of muddled thinking. (-)
- ▶ People should revise their conclusions in response to relevant new information.
- ▶ Changing your mind is a sign of weakness. (-)
- ▶ People should search actively for reasons why they might be wrong.
- ▶ It is OK to ignore evidence against your established beliefs. (-)
- ▶ It is important to be loyal to your beliefs even when evidence is brought to bear against them. (-)
- ▶ There is nothing wrong with being undecided about many issues.
- ▶ When faced with a puzzling question, we should try to consider more than one possible answer before reaching a conclusion.

## Questions after each item

How would you have answered this question earlier in your life, when you first might have been able to understand the question as you do now? [Past]

How would those who brought you up have wanted you to answer this question?[Background]

Please indicate how each the following influenced your views.

I thought about things like this myself.

[Strongly toward 'disagree' . . . Strongly toward 'agree']

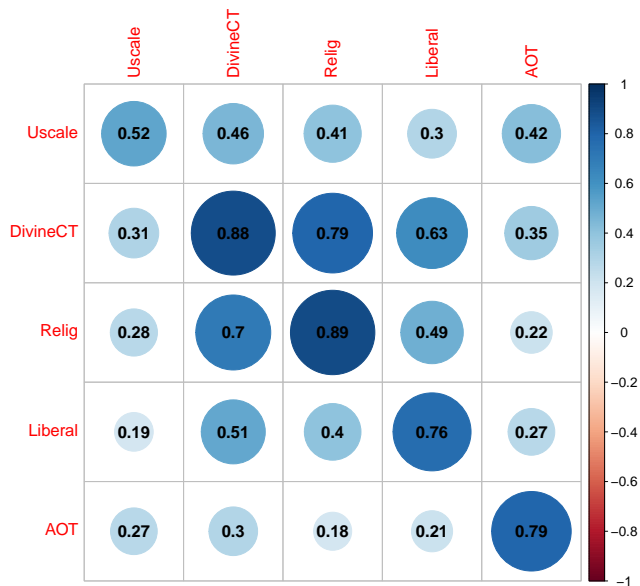
People involved in my upbringing.

Other people I met later.

My formal education (e.g., school, college).

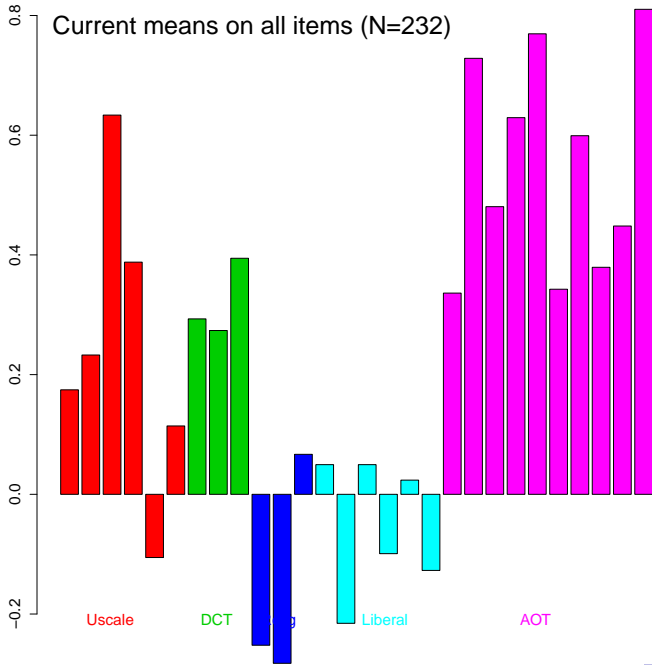
Specific life experiences that I had.

# Positive manifold for the responses

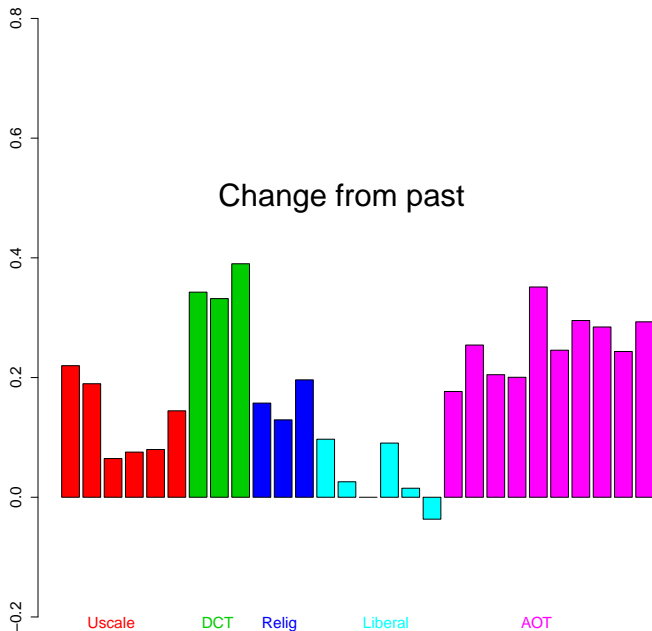




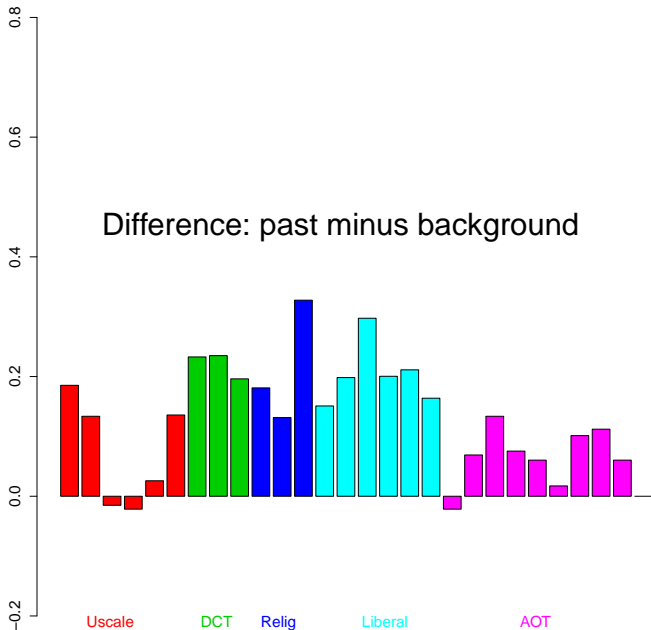
Current means on all items (N=232)

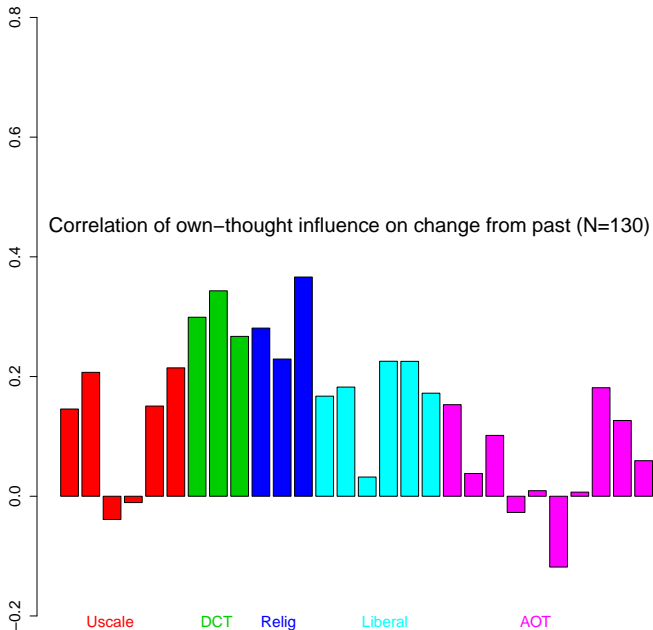


## Change from past



Difference: past minus background





0.8  
0.6  
0.4  
0.2  
0.0  
-0.2

Correlation of upbringing influence on change from past (N=130)

Uscale

DCT

Relig

Liberal

AOT

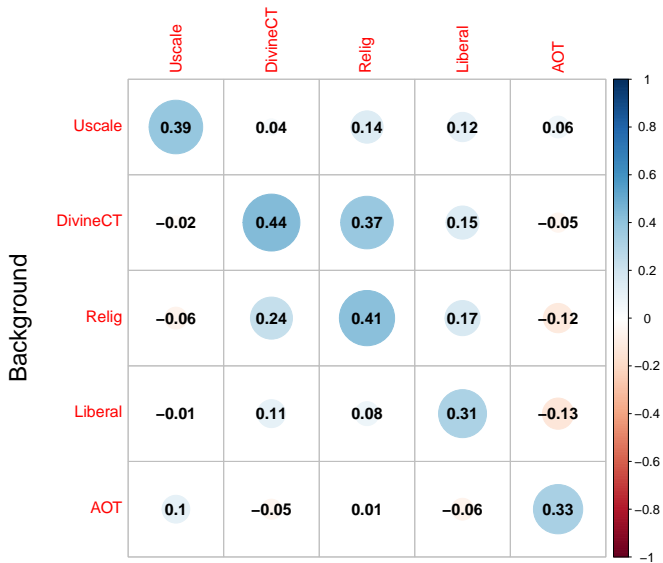
## Current answers



## Change from past



# Present





## Conclusions

There is a positive manifold among measures of deontology, social conservatism, parochialism, religious “fundamentalism”, and non-acceptance of AOT.

Some traits may affect others. AOT could lead to cosmopolitanism, rejection of moralistic values, and utilitarianism. Utilitarianism can lead to cosmopolitanism. Belief in divine command theory can make people resist AOT.

Some beliefs/norms/standards seem likely to arise from direct cultural transmission (Divine Command Theory). Why are these traditions maintained?

Some people become more cognitively liberal over their lives. Some of this is the effect of “thought about it myself.” But cultural background still matters, and is thus somewhat perpetuated across generations.

## Where to find these slides

<http://finzi.psych.upenn.edu/~baron/talks/bgu.pdf>