



# Analytic cognitive style and cognitive ability differentially predict religiosity and social conservatism<sup>☆</sup>



S. Adil Saribay<sup>a,\*</sup>, Onurcan Yilmaz<sup>b</sup>

<sup>a</sup> Department of Psychology, Boğaziçi University, Bebek, 34342 Istanbul, Turkey

<sup>b</sup> Doğuş University, Istanbul, Turkey

## ARTICLE INFO

### Article history:

Received 9 February 2017

Received in revised form 23 March 2017

Accepted 24 March 2017

Available online xxxx

### Keywords:

Analytic cognitive style

Cognitive ability

Political orientation

Conservatism

Religiosity

Religious belief

## ABSTRACT

Motivated by the dual-process model of the mind, recent research has tested the relationship between cognitive variables and sociopolitical attitudes. There are reasons to believe that religiosity and conservatism may be differentially predicted by analytic cognitive style (ACS) and cognitive ability (CA), respectively. We collected data with three ACS measures, two CA measures, and separate measures of social and economic conservatism. ACS uniquely predicted religiosity and CA uniquely predicted social and general, but not economic, conservatism, controlling for demographic variables. Further research and theorizing are needed to establish the potentially closer coupling between ACS and religiosity and CA and conservatism.

© 2017 Elsevier Ltd. All rights reserved.

## 1. Introduction

*"It is the heart which perceives God and not the reason. That is what faith is: God perceived by the heart, not by the reason."*

[–Blaise Pascal]

*"The intellectual debility of contemporary conservatism is indicated by its silence on all important matters."*

[–Christopher Lasch]

Individuals differ in a host of cognitive variables and these differences may be associated with sociopolitical attitudes. Following a key meta-analysis by Jost, Glaser, Kruglanski, and Sulloway (2003), there has been a surge of interest in explaining differences in ideological attitudes with reference to differences in cognitive style. Across many cultures, a more rigid, closed-minded, and dogmatic cognitive style, has been found to be associated with conservatism (Jost et al., 2003; Jost, Sterling, & Stern, 2017).

The dual-process model of the mind can explain such results. Accordingly, the human mind functions with the help of two types of mental processes: The evolutionarily older Type 1 supports rapid, automatic

information processing and outputs intuitive judgments whereas Type 2 supports slower, systematic information processing and outputs reflective judgments (Evans & Stanovich, 2013). Analytic thought is a signature of Type 2 activation and involves critically examining Type 1 intuitions and effortfully overriding them in favor of more rational responses (Stanovich, 2011). The tendency to use analytic thought—analytic cognitive style (ACS)—has been empirically linked to liberalism (Yilmaz & Saribay, 2017) and intuitive cognitive style to conservatism (e.g., Eidelman, Crandall, Goodman, & Blanchar, 2012).

Similar attempts have been directed at understanding individual differences in religiosity. For instance, Pennycook and colleagues (Pennycook, Cheyne, Seli, Koehler, & Fugelsang, 2012) showed that ACS, controlling for a host of variables including cognitive ability (CA) and political ideology, predicted both religiosity and paranormal beliefs negatively. Other research has demonstrated the same negative ACS-religiosity relationship experimentally (Gervais & Norenzayan, 2012; Shenhav, Rand, & Greene, 2012; Yilmaz, Karadöller, & Sofuoğlu, 2016), although conflicting findings also exist (Sanchez et al., 2017; Yonker, Edman, Cresswell, & Barrett, 2016).

### 1.1. Cognitive style and cognitive ability

In testing the relationship between cognitive style and sociopolitical attitudes, it is important to control for CA, because intelligence and social conservatism are negatively related (Hodson & Busseri, 2012; Onraet et al., 2015). Intelligence also appears to be negatively, albeit weakly, related to religiosity (Zuckerman, Silberman, & Hall, 2013).

<sup>☆</sup> Author's notes: We thank Barış Sevi for help with data collection.

\* Corresponding author.

E-mail address: [adil.saribay@boun.edu.tr](mailto:adil.saribay@boun.edu.tr) (S.A. Saribay).

One reason for this relationship is that more intelligent individuals are more likely to adopt an ACS (Frederick, 2005; see Zuckerman et al., 2013, p. 341).

### 1.2. Differential relations of religiosity and conservatism with cognitive variables

In many societies religiosity is aligned with conservatism (Purko, Schwartz, & Davidov, 2011) and CA and ACS are correlated. However, CA and ACS might differentially predict conservatism and religiosity, respectively. First, despite their metaphysical nature, the key concepts that support religious beliefs (e.g., god, angels, and commandments such as “thy shall not steal”) may be more concrete and less complicated than those of politics (e.g., wealth distribution, democracy, checks and balances): “religion is deeply anthropomorphic, religious beliefs are inspired by the world around us, [and] religion follows our often simple intuitions about the world” (Frey, 2009, p. 237). Second, religious practices may be more visible and frequent (e.g., weekly Church attendance) than political actions (e.g., voting, protests). Third, fear of god and punishment in hell does not appear to have political counterparts that are equally emotionally charged and instilled in childhood in a way that retains relevance in adulthood (i.e., even if a child acquired the fear of punishment by Donald Trump or Hillary Clinton, it will most probably be irrelevant in adulthood because politicians change but the concept of god will presumably retain the same essence). Such factors may contribute to the increased prominence of religion, relative to politics, in early socialization, making religious beliefs more strongly embedded in Type 1 processes (see Norenzayan, 2013; Norenzayan & Gervais, 2013). In fact, socialization (especially by parents) and exposure to credibility-enhancing displays (i.e., “walking the walk”; Henrich, 2009) by community members appears to be the most potent source of future attitudes and beliefs (Lanman & Buhrmester, 2017). Thus, whichever belief system is most easily translated to concrete behavior, in this case religion, should feature more prominently in early socialization and consequently have an advantage in cultural transmission via being more firmly installed in Type 1 processes. The socialization literature offers some support for this idea. For instance, transmission is more likely on “issues with a strong moral and/or affective component” (Jennings, Stoker, & Bowers, 2009, p. 787) and these issues tend to feature religion prominently (e.g., abortion, prayer in schools) as “religion is emotional” (Thagard, 2005).

Furthermore, human cognitive architecture may be particularly suited to belief in supernatural agency (Barrett, 2004). Children have been labelled “intuitive theists” (Kelemen, 2004) and this inclination may continue into adulthood, possibly even for self-defined non-believers (cf. Gervais & Najle, 2015). Critically, adult non-believers respond as if they believe in supernatural agency *under processing constraints*, that is, when Type 2 processes are hampered (Järnefelt, Canfield, & Kelemen, 2015). Activating Type 2 reflection is also known to reduce religious conviction (Gervais & Norenzayan, 2012; Shenhav et al., 2012; Yilmaz et al., 2016). Based on similar considerations, Gervais and Najle (2015, p. 334) have suggested that “intelligence may influence religiosity (e.g., Zuckerman et al., 2013) primarily through its effects on cognitive style, and be wholly independent of—or perhaps enhance—the influence of cultural learning” (for similar statements, see also Ashton & Lee, 2014; Morgan, Wood, & Caldwell-Harris, 2017). Finally, evidence has begun to emerge that when both CA and ACS are measured, it is the latter that is predictive of religiosity (see Pennycook, 2014, for a review; Pennycook, Ross, Koehler, & Fugelsang, 2016, for a meta-analysis; but see Razmyar & Reeve, 2013).

In contrast, political reasoning may require more time to develop both because children lack the “cognitive competence” to process policy issues and because they “are virtually segregated from the places where politics is enacted or even discussed” (Sapiro, 2004, p. 16). Consequently, political preferences may be relatively less deeply rooted in Type 1 processes. Liberal arguments in particular may tend to be more complex

and abstract (e.g., Cichocka, Bilewicz, Jost, Marrouch, & Witkowska, 2016) and processing them may require a certain level of CA. Westen (2008) made this point by stating that U.S. Democrats have “an irrational emotional commitment to rationality” (p. 15). Thus, relative to the tendency to override intuitions, it may rather be *the cognitive capacity for rational thought* that predicts a liberal political orientation.

While ACS and conservatism—especially social rather than economic (e.g., Deppe et al., 2015; Yilmaz & Saribay, 2016, 2017)—are negatively related, this may be due to the ACS–CA relationship and CA may be a stronger predictor of political orientation than ACS. Some studies have failed to observe the ACS–conservatism link (e.g., Kahan, 2013; Landy, 2016), perhaps for this reason. The CA–conservatism link, on the other hand, has been established in many studies (see Onraet et al., 2015, for a meta-analysis). Most compellingly, childhood intelligence prospectively predicts adulthood liberalism (Schoon, Cheng, Gale, Batty, & Deary, 2010). CA and political attitudes are both heritable and the former may mediate genetic influences on the latter (Oskarsson et al., 2015).<sup>1</sup> However, not many studies on the CA–conservatism link have controlled for the related constructs of ACS and religiosity (see Heaven, Ciarrochi, & Leeson, 2011, for a negative intelligence–conservatism link controlling for religiosity).

In sum, consistent with theorizing regarding ACS and CA (Toplak, West, & Stanovich, 2011), ACS should be more relevant when there are strong intuitions in a given domain. Religion may be a more prominent source of intuitions than politics is. Thus, religiosity should be more closely coupled with (weak) ACS than CA; and conservatism with (low) CA than ACS. The extant literature has focused on either religiosity or conservatism exclusively. Since these are related (e.g., Hirsh, Walberg, & Peterson, 2013), we aimed to provide evidence controlling for religiosity when predicting conservatism and vice versa.

### 1.3. The present research

We simultaneously examined religiosity and conservatism on the one hand and cognitive style and cognitive ability on the other and tested the prediction that ACS would uniquely predict religiosity (a replication of Pennycook et al., 2012) and CA would uniquely predict conservatism. We employed separate measures of social and economic attitudes, as well as alternative measures of ACS and CA.

## 2. Method

### 2.1. Participants

Since replication should ideally exceed the original sample size (Simonsohn, Nelson, & Simmons, 2014) we aimed to recruit a sample that was at least 1.5 times as large as Pennycook et al.’s (2012). Considering potential data loss, 523 Amazon Mechanical Turk workers participated in exchange for money.<sup>2</sup> Participants who did not complete the survey and those with an IP outside of the U.S.A. were excluded, resulting in 426 participants (mean age = 38.67, SD = 13.81, 235 female, 160 male, 1 unreported). There were 225 Christians (52.8%), 59 Agnostics (13.8%), 37 Atheists (8.7%), 9 Buddhists (2.1%), 8 Jews (1.9%), 5 Pagans (1.2%), 3 Muslims (0.7%), 30 “others” (7%), and 50 unreported (11.7%).

### 2.2. Materials and procedure

Participants were directed to an online survey that was implemented using PsyToolkit (Stoet, 2010, 2017) and took approximately 25 min to complete. The order of the measures and the order of the items

<sup>1</sup> Note that genetic influences on religious beliefs have also been documented (Friesen & Ksiazkiewicz, 2015; Lewis & Bates, 2013).

<sup>2</sup> Other analyses from the same dataset was reported in another manuscript whose focus did not concern religiosity and CA.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات