

Intuitions about God and Satan: The relationship of mentalizing and imagination with the experience of supernatural good and evil

Laird Edman, Hannah Paauw, Taelor Lamansky, Nolan Behr, Noah Hop, Ethan Husbands, Cole Mills



Introduction

Believers in relational deities conceptualize god(s) as agents with mental states. The ability to imagine other minds may be one of the cognitive foundations of religious belief. Research on this relationship is mixed, however. This study tests this relationship across experiences of supernatural good and evil rather than abstract beliefs.

Previous research has demonstrated that mentalizing significantly predicted prayer type (Edman et al., 2015; 2017). However, a multi-site replication study failed to replicate the initial results, indicating that perhaps mode of prayer is more complexly related to mentalizing than initially hypothesized. Edman (2015; 2018) extended this research by including measures of belief in agentic evil and absorption. This research supported the relationship of mentalizing with supernatural experiences, but a curious result emerged: mentalizing desires (i.e., empathy) were positively related to experiences with supernatural agents, but mentalizing abilities (i.e., scores on the Mind in the Eyes test) were negatively related. Also, experiences with agentic evil were more highly related to mentalizing scores (both positive and negative) than were experiences with a good god.

A previous study related empathy and mentalizing abilities were related to supernatural experience, but the correlations were not in the hypothesized direction (Edman, 2019). The current study attempts to parse out this relationship as well as the differences between beliefs in agentic supernatural evil versus agentic supernatural good.

Methods & Procedure

The Prayer Intimacy Scale: (Edman et al, 2016). Five questions concerning participants' experience of a personal god in prayer.

The Empathy Quotient-- short form (EQ): twenty-two items that assess the degree to which participants are able to vicariously identify with the perspectives and emotions of others (Wakabayashi et al, 2006).

The Mind in the Eyes Test-- Revised: Thirty-six pictures that assess the presence of autistic traits in adults by measuring a participant's ability to accurately detect a person's emotion based on an image of a pair of eyes (Baron-Cohen, Wheelwright, Hill, et al., 2001).

Tellegen Absorption Scale: A 34-item scale that assesses one's level of absorption and hypnotic sensibility.

The Supernatural Evil Scale-R: Six items modified from the Religious and Spiritual Struggle Scale (Edman, 2019; Exline, Pargament, Grubbs, & Yali, 2014). Questions concern participants' experience with agentic evil.

The Cognitive Reflection Inventory: (CRT) Three items that assess one's ability to suppress intuitive responses and engage analytic thinking (Frederick, 2005).

Rational Experiential Scale: (REI) A 31-item scale that assesses both Need for Cognition and Faith in Intuition.

Demographic Highlights

Sample	557	47% Male
Age Range	20-79	(<i>M</i> = 35.05, <i>SD</i> = 10.84)
Ethnicity	57.36% White, 30.42% Asian, 6.97% African/ Black; 4.45% Latino; .01% "other"	
Reported Religion	22.5% Protestant Christian, 23.1% Catholic Christian, 21.5% Hindu, 17.5% no religious affiliation, 2.8% Muslim, 1.8% Buddhist; 11% Other.	

Results

Contrary to previous results, the EQ was related to measures of supernatural experience in the hypothesized direction (EQ/PI: $r(525) = .142^{**}$; EQ/SE: $r(518) = -.148^{**}$). As predicted, the MET-R was also negatively related to measures of supernatural experience (w/PI $r(487) = -.357^{**}$; w/ SE $r(473) = -.585^{**}$).

Measures of mentalizing significantly predicted prayer intimacy (see Table 1) even after scores on measures of analytic thinking and absorption were in the first step of the model. In step 2 of the regression, empathy added unique predicted variance to the model. This model corrected past research that showed a negative relationship of empathy with prayer intimacy (Edman, 2019). Using a similar model, mentalizing also significantly predicted experiences with supernatural evil (see Table 2). The second model using the same measures of mentalizing, analytical thinking, and absorption predicted almost double the amount of variance of experiences with supernatural evil than they did with prayer intimacy.

The Mind in the Eyes test of mentalizing seems to be negatively predictive of supernatural experiences of both good and evil. In every model it was used in, the beta was the highest and achieved significance (see Table 1 and Table 2).

Discussion

The results of the current study show that different types of mentalizing abilities may be more predictive of experiences of supernatural evil rather than good. The relationship of mentalizing with experiences of supernatural evil may reflect the commonality of experience with positive supernatural agents, but less commonly accepted experiences with supernatural evil. Interestingly, the strong negative relationship between mentalizing and prayer intimacy is not so easily explained. The better a person is at discerning other's mental states, the less experience they report with supernatural entities. This is a complex relationship where different measures could be utilized to parse out the specific nuances.

In addition, measures of analytical thinking do not seem to predict a lack of experience with supernatural entities. Empathy also only seems to be a predictive factor in experiences with good supernatural entities and not evil. But, absorbed thinking seems to be a factor that predicts all experiences with the supernatural. Lower mentalizing scores, along with these other factors, are related to the experience of god, but they are more highly related to satan.

One of the most interesting findings of the current data set is that ability levels of mentalizing are negatively related to experiences with both supernatural good and supernatural evil. But, these measures predicted almost double the variance in experiences of supernatural evil. Therefore, experiences of satan may be more related to the lack of commonly held or discussed beliefs about supernatural evil in everyday culture. Those who do not mentalize well, especially those also high in absorption, may be more prone to experiencing supernatural evil.

Table 1

Hierarchical Regression Analysis for Variables Predicting Prayer Intimacy (N = 376)

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

Variable	Model 1			Model 2		
	B	SE B	β	B	SE B	β
Absorption	.199	.037	.258***	.150	.036	.195***
Rational-Ex. Sc.	.029	.014	.102*	.025	.013	.087
Cog. Ref. Inv.	-.993	.243	-.199***	-.321	.256	-.064
MET-R				-.261	.040	-.342***
EQ				.160	.033	.231***
R²	.13			.24		
F change in R²	18.361***			23.439***		

Table 2

Hierarchical Regression Analysis for Variables Predicting Supernatural Evil Experiences (N = 378)

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

Variable	Model 1			Model 2		
	B	SE B	β	B	SE B	β
Absorption	.230	.039	.276***	.202	.034	.243***
Rational-Ex. Sc.	.025	.014	.082	.007	.013	.024
Cog. Ref. Inv.	-1.650	.252	-.305***	-.400	.247	-.074
MET-R				-.412	.039	-.500***
EQ				.036	.032	-.048
R²	.20			.40		
F change in R²	30.237***			48.897***		