

Paranormal belief and attitudes toward human rights

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ABSTRACT

The current study aimed at revealing the relationship between paranormal belief and attitudes toward human rights. For this purpose, two questionnaires were employed, the Revised Paranormal Belief Scale (RPBS; Tobacyk, 2004) and the Attitudes Toward Human Rights Inventory (ATHRI; Crowson, 2004). The analysis of the data (n = 220) revealed a significant negative correlation between the two scales. Based on the ANOVA results, participants with lower compared to higher paranormal belief had more positive attitudes toward human rights. In particular, in the multiple regression analysis, the Traditional Religious Belief and Superstition subscales of the RPBS scale were the main predictors for attitudes toward human rights. Therefore, both analyses support the idea that belief in paranormal phenomena decreases positive attitudes toward human rights among Iranians.

Keywords: *Human Rights, Paranormal Belief, Superstition, Prosocial Attitudes*

Human rights has been an age-old issue, and at the same time, a major steppingstone toward a diverse and just world. Among early attempts are Urukagina and Hammurabi's ancient codes – around four millennia ago – which gradually developed into the more recent Universal Declaration of Human Rights in 1948. The concept of human rights can be studied from various perspectives. One is the employment of scales. In this regard, Crowson (2004) claims that attitudes linked to human rights can be considered both a unidimensional and multidimensional concept. Diaz-Veizades and colleagues (1995) were the first to introduce a multidimensional scale for assessing human rights attitudes. Based on their scale, Crowson later developed an improved version. He found human rights to be linked with personality, developmental, and ideological variables (2004). Investigating other correlates of human rights attitudes will bring new insights into this field.

An important issue in social and psychological sciences is paranormal belief (Chauvin and Mullet, 2018). Paranormal phenomena can be defined as those that violate basic scientific principles (Broad, 1953). Yet, it is commonly seen within modern society (e.g., Gallup & Newport, 1991; Newport & Strausberg, 2001; Díaz-Vilela & Alvarez-Gonzalez, 2004), coming to around half of the population (e.g., Greeley, 1987; see also Gallup and Newport, 1991) So, why does the general public still hold these beliefs even with all the scientific developments of the past century? Well, there seems to be a lot of factors contributing to

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these beliefs. People's understanding of chance, for example, randomness, has been shown to be correlated with paranormal belief (Hergovich and Arendasy, 2005). Additionally, it seems paranormal belief as a personality trait itself is deemed to be related to other psychological processes. Williams and Roberts (2016) found a relation between paranormal belief and conscientiousness along with openness. Zingrone, Alvarado, and Dalton (1998) demonstrated that Psi experiences positively correlate with openness, but negatively with conscientiousness. Huntley and Peeters (2005) found a significant negative correlation between paranormal belief and conscientiousness, not found in many previous studies. Similarly, Miklousic et al. (2012) found that conscientiousness was negatively correlated with general paranormal belief and positively related to traditional religious belief. In a recent study, only one of the two aspects of each Big Five factor predicted paranormal belief, the withdrawal, openness, industriousness, and assertiveness aspects of Neuroticism, Openness/Intellect, Conscientiousness, and Extraversion, respectively, but not the volatility, intellect, orderliness, and enthusiasm aspects (Chauvin and Mullet, 2018).

What is more, paranormal belief appears to be correlated with mental illness (Kelly, 2011), including schizophrenia (Thalbourne, 1994) and manic-depressive experiences (Thalbourne and French, 1995); and individuals with higher belief in 'extraordinary phenomena' were higher in the Hypomania and Schizophrenia scale on MMPI (Windholzand and Diamant, 1974). Paranormal belief has also been of importance in the area of psychotherapy and mental health studies. In a study by Roe and Bell (2016), paranormal belief significantly correlated with scores of state and trait anxiety. Regarding other mental health domains, Cofrin (2006) showed that paranormal belief, and other similar beliefs, predict many psychopathological symptoms ranging from depression to psychosis.

Not only does paranormal belief emerge within the mind, it opposes the naturalist view of the world. Musch and Ehrenberg (2002) argue that scientific findings in physics and paranormal phenomena are incompatible. As a matter of fact, some studies have found negative correlations between scientific knowledge and paranormal belief (e.g., Grimmer and White 1992; Vilela and Álvarez 2004; Aarnio and Lindeman 2005; Bensley et al. 2014; Morier and Keeports 1994; Franz and Green 2013; Wilson 2018). On this note, students in science departments tend to hold fewer paranormal belief (McLeish, 1984). However, other studies have found no correlation between the two (e.g., Walker et al. 2002; Goode 2002; Lundström and Jakobsson 2009; Johnson and Pigliucci 2004; Majima 2015).

Predominant theories of paranormal belief favor more mundane and conventional explanations, such as selective bias – misperception and misinterpretation (Houran & Lange, 1996; Lange & Houran, 1997). Specifically, probability misjudgment theory has predicted that individuals with paranormal belief were less accurate in probabilistic reasoning than non-believers (e.g., Blackmore & Troscianko, 1985; Brugger, Landis, & Regard, 1990). In the same way, a minor relationship between paranormal belief and faulty conditional reasoning has been found (Wierzbicki, 1985), however, this has not been replicated (Irwin, 1991). Lastly, an analytic cognitive style was negatively correlated with religious and paranormal beliefs (Pennycook et al. 2012).

Based on the aforementioned studies, paranormal belief's relation with personality traits, normal and abnormal mental phenomena, and scientific reasoning provide evidence for its important role while studying other phenomena in the areas of humanities and social sciences. There has been a recent proposal that emphasizes the cognitive mechanisms involved in attitudes toward human rights (e.g., Gregg, 2016, see the Discussion section). To

our knowledge, there has not been any research that has considered the association between paranormal belief, as a cognitive style, and attitudes toward human rights. Thus, investigating the relationship between paranormal belief and attitudes toward human rights is worth consideration.

METHODOLOGY

Participants

A convenient sample of two hundred and twenty Iranian social media users were hired through several Telegram channels (Iran's most popular social media platform). The participants were asked to fill out the two mentioned questionnaires via Google Form, anonymously. This included one hundred twenty-two females and ninety-eight males, aged from 18 to 48 ($M=26.4$, $SD = 6.20$). Their educational levels ranged from high school diploma to master's degree (55 high school diploma, 106 BA, and 59 MA).

Procedure

In this study, two questionnaires were employed: the Revised Paranormal Belief Scale (RPBS) developed by Tobacyk (2004) and the Attitudes Toward Human Rights Inventory (ATHRI; Getz, 1985) revised by Crowson (2004). They were scientifically translated from English to Persian and verified using back-translation. The RPBS consists of four subscales: Precognition, Superstition, Traditional Religious Belief, and Spiritualism. The ATHRI consists of three subscales: Personal Liberties, Civilian Constraint, and Social Security. The translated RPBS and ATHRI scales had good psychometric characteristics, Cronbach's Alpha $r = .82$ and $.86$, respectively. The original RPBS, contained three other paranormal belief subscales, Psi, Witchcraft, and Extraordinary Life Forms, but these subscales were excluded from the current study in order to improve cross-cultural validity in Iranian society. Also, as Tobacyk noted, the Extraordinary Life Forms subscale does not strongly conform to the paranormality criterion and is a "violation of a basic limiting principle of science" (Tobacyk, 2004, p. 97; but see Zusne & Jones, 1982).

RESULTS

The data was analyzed using R, a free statistical programming tool (version 3.959). The tidyverse and umx packages were used. The results of correlation analysis showed a significant and strong reverse correlation between the RPBS and ATHRI scales ($r=-.45$; $p<.001$). Civilian Constraint ($r=-.391$; $p<.001$) and Personal Liberties ($r=-.426$; $p<.001$) both had a significant negative correlation with paranormal belief. However, Social Security had no significant relation ($r=-.088$; $p<.196$) with paranormal belief (Table 1). Lastly, a significant negative correlation was found between the ATHRI scale and the RPBS subscales, Traditional Religious Belief ($r=-.502$; $p<.001$), Superstition ($r=-.352$; $p<.001$), Spiritualism ($r=-.275$; $p<.001$), and Precognition ($r=-.151$; $p<.025$), as shown in Table 2.

Table 1 The correlation between the three subscales of the Attitudes Toward Human Rights Inventory scale (ATHRI), Personal Liberties, Civilian Constraint, and Social Security, and the Revised Paranormal Belief Scale (RPBS).

		Social Security	Civilian Constraint	Personal Liberties
RPBS	Correlation	-.088	-.391**	-.426**
	Sig. (2-tailed)	.196	.000	.000
	N	220	220	220

** Correlation is significant at the 0.001 level (2-tailed).

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Table 2 *The correlation between the four subscales of the Revised Paranormal Belief Scale (RPBS), Precognition, Superstition, Traditional Religious Belief, and Spiritualism, and the Attitudes Toward Human Rights Inventory scale (ATHRI).*

		Traditional Religious Belief	Superstition	Spiritualism	Precognition
ATHRI	Correlation	-.502**	-.352**	-.275**	-.151*
	Sig. (2-tailed)	.000	.000	.000	.025
	N	220	220	220	220

***. Correlation is significant at the 0.001 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

In the ANCOVA analysis, the RPBS scale was included as the predictor variable and the ATHRI scale as the dependent variable, taking into account the interaction between the RPBS scale, Gender, Education, and median-split Age. The results revealed a significant main effect of the paranormal factor ($F_{1,196}=54.95$; $p < .001$), indicating those with lower paranormal belief had more positive attitudes toward human rights (Table 3). The Gender factor was significant ($F_{1,196}=4.1$; $p=0.044$), however, Age and Education and any interactions were not significant.

Table 3 *ANCOVA analysis, the two paranormal groups by gender (2 x 2), on the human rights' scores as dependent variable, and age as covariate.*

Source	df	sumsq	meansq	statistic	p.value
RPBS	1	43.3	4.33e+1	54.9	3.63e-12
Sex	1	3.25	3.25e+0	4.12	4.38e-2
Education	2	0.167	8.34e-2	0.106	9.00e-1
Median age	1	0.332	3.32e-1	0.422	5.17e-1
RPBS::Sex	1	0.851	8.51e-1	1.08	3.00e-1
RPBS::Education	2	3.14	1.57e+0	1.99	1.39e-1
Sex::Education	2	0.0347	1.74e-2	0.0220	9.78e-1
RPBS::Median age	1	0.121	1.21e-1	0.154	6.95e-1
Sex::Median age	1	0.00179	1.79e-3	0.00227	9.62e-1
Education::Median age	2	2.36	1.18e+0	1.50	2.26e-1
RPBS::Sex:: Education	2	0.367	1.83e-1	0.233	7.93e-1
RPBS::Sex::Median age	1	0.0473	4.73e-2	0.0601	8.07e-1
RPBS::Education::Median age	2	0.121	6.03e-2	0.0765	9.26e-1
Sex::Education::Median age	2	0.0337	1.69e-2	0.0214	9.79e-1
RPBS::Education::Median age::Sex	2	4.76	2.38e+0	3.02	5.11e-2
Residuals	196	154.	7.88e-1	NA	NA

In a separate MANCOVA on Gender (independent variable) and the three subscales of RPBS (dependent variable), with Age and Education as the covariate variables (Table 4). The results indicated that the Precognition subscale was significantly different between males and females ($F_{1,216}= 7.22$; $p < 0.01$), and age was a significant covariate for the Superstition subscale ($F_{1,216} = 4.95$; $p=0.03$). Though, in a similar MANCOVA on Gender and the three subscales of ATHRI, no subscales were significant (Table 5).

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Table 4 MANCOVA on Gender (independent variable) and the three subscales of RPBS (dependent variable), with Age and Education as the covariate variables.

	Dependent Variable	Sum of Squares	df	Mean Square	F	p
Sex	Personal Liberty	2.138	1	2.138	1.332	0.25
	Social Security	1.284	1	1.284	1.293	0.26
	Civilian Constraint	0.502	1	0.502	0.275	0.60
	Personal Liberty	2.008	1	2.008	1.251	0.26
Age	Social Security	1.638	1	1.638	1.649	0.20
	Civilian Constraint	1.479	1	1.479	0.809	0.37
	Personal Liberty	1.417	1	1.417	0.883	0.35
Education	Social Security	0.382	1	0.382	0.385	0.54
	Civilian Constraint	0.019	1	0.019	0.011	0.92
	Personal Liberty	346.662	216	1.605		
Residual	Social Security	214.580	216	0.993		
	Civilian Constraint	394.799	216	1.828		
	Personal Liberty					

Table 5 MANCOVA on Gender (independent variable) and the three subscales of ATHRI (dependent variable), with Age and Education as the covariate variables.

	Dependent Variable	Sum of Squares	df	Mean Square	F	p
Sex	Traditional Rel	1.062	1	1.062	0.3537	0.55
	Superstition	0.259	1	0.259	0.2680	0.61
	Precognition	12.681	1	12.681	7.2178	<0.1
	Spiritual	0.210	1	0.210	0.1340	0.71
Age	Traditional Rel	8.136	1	8.136	2.7092	0.10
	Superstition	4.787	1	4.787	4.9469	0.03
	Precognition	6.167	1	6.167	3.5100	0.06
Education	Spiritual	1.477	1	1.477	0.9405	0.33
	Traditional Rel	0.027	1	0.027	0.090	0.92
	Superstition	0.741	1	0.741	0.765	0.38
	Precognition	0.560	1	0.560	0.3190	0.57
Residual	Spiritual	0.203	1	0.203	0.1290	0.72
	Traditional Rel	648.664	216	3.003		
	Superstition	209.030	216	0.968		
	Precognition	379.506	216	1.757		
	Spiritual	339.138	216	1.570		

Further analysis was carried out using multiple regression. The results revealed that only the Traditional Religious Belief and Superstition subscales can significantly predict attitudes toward human rights, $Beta=-6.95$; $p<.001$ and $Beta=-4.38$; $p<.001$ (Table 6). Detailed methods and statistical analyses can be found in the Supplementary Data.

Table 6 The results of multiple regression analysis: The paranormal belief subscales as predictors and attitudes toward human rights as dependent variable.

	estimate	std_error	statistic	p_value	lower_ci	upper_ci
Intercept	6.99	0.207	33.7	0.000	6.58	7.40
Traditional Religious Belief	-0.267	0.038	-6.95	0.000	-0.343	-0.192
Superstition	-0.27	0.062	-4.38	0.000	-0.392	-0.149
Spiritualism	0.021	0.052	0.406	-0.081	-0.081	0.123
Precognition	0.031	0.062	0.499	-0.091	-0.091	0.153

DISCUSSION

The main purpose of the current study was to investigate the relationship between paranormal belief and attitudes toward human rights. The findings revealed that individuals with higher paranormal belief had more negative attitudes toward human rights. Specifically, among the four subscales of paranormal belief, the Traditional Religious Belief and Superstition subscales were the significant predictors of the dependent variable, attitudes toward human rights. Moreover, two of the human rights subscales, Civilian Constraint and Personal Liberties, had a negative correlation with paranormal belief.

As shown in the Results section, the traditional religious belief subscale in the paranormal belief scale was the main predictor of attitudes toward human rights. In this regard, Orenstein (2002) found that participants with higher religious belief tend to have higher paranormal belief. Another recent study has supported this relationship (Eder et al., 2010). Therefore, studying the relationship between religion and human rights is an area where researchers might find underlying processes of the ‘human rights cognitive styles’. Though, differences do exist among paranormal and religious believers (e.g., Aarnio and Lindeman, 2007; Langston et al., 2018; Rice, 2003; Willard and Norenzayan, 2017).

Additionally, regarding the relationship between gender and the three subscales of the Attitudes Toward Human Rights Inventory, only the Personal Liberties subscale was significant, with females being higher. Moreover, the paranormal belief scores were similar between males and females. In one of its subscales, precognition was higher among females compared to males. This is in line with previous studies that showed belief in the paranormal is more common within women (e.g., Rice, 2003; Tobayck and Milford, 1983).

In conclusion, the findings support the idea that among Iranians, belief in paranormal phenomena interferes with attitudes toward human rights, put differently, paranormal belief when higher, results in more negative attitudes toward human rights. Similar to other personality characteristics, paranormal belief can be subject to change through training and education. People’s cognition, including ‘unwarranted beliefs’ can be modified, as shown when training individuals on the real nature of paranormal belief and pseudoscience (Dyer and Hall 2018). Through these scientific endeavors, we might facilitate a better understanding of what Benjamin Bregg calls ‘human rights cognitive styles’ (Gregg, 2016; Wolfsteller and Gregg, 2017; see also Bezbozhna and Olsson, 2017). This implies that the “human rights consciousness” (Gregg, 2016) may be enhanced through the attenuation of paranormal belief.

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In order to expand and firmly implement the human rights issue, exploring the underlying mechanisms of mental sets similar to the ‘human rights cognitive style’ is worth investigating. Gregg argued in his recent book, *The Human Rights State* (2016), the notion of ‘binding’ oneself is key in acquiring a ‘human rights consciousness’ as a cognitive style. Therefore, changing the way we perceive and understand the world through the modification of paranormal belief is a step forward in changing people’s attitude toward human rights.

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Conflict of Interest

The author declared no conflict of interest.

Supplemental Materials

The supplemental materials are available in the online version of the article and at https://osf.io/huxbf/?view_only=7df314d050a641168c072dd9650fad97.

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