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Social Cognition and Democracy: The Relationship Between System Justification, Just World Beliefs, Authoritarianism, Need for Closure, and Need for Cognition in Hungary

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Abstract

This research was aimed at examining just-world beliefs, system justification, authoritarianism, and cognitive style in a nationally representative sample (N = 1000) in Hungary, and at relating these phenomena to various demographic and political variables to find out whether the findings in Hungary would differ from its Western counterparts. According to system justification theory, there is a psychological motive to defend and justify the status quo. This theory has been tested several times in North American and Western European samples. The core finding of our study was that Hungarian people, unlike people in Western democracies, did not justify the existing establishment. There was strong pessimism with regard to the idea that the system serves the interests of the people. Members of disadvantaged groups (people with low economic income and/or far right political preference) strongly rejected the system. System justification beliefs were moderately related to just world beliefs, and there was a significant relationship between some aspects of need for closure (need for order, discomfort with ambiguity, and closed-mindedness) and authoritarian beliefs. Need for cognition was only related to one aspect of need for closure: closed-mindedness. The voters of right-wing parties did not display higher levels of authoritarianism than the voters of the left social-democrat party. The role of demographic and political variables, limitations, and possible developments of this research are discussed.

Keywords: just-world hypothesis, system justification, cognitive style, need for closure, authoritarianism

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The last decade has witnessed a major erosion of democratic institutions and values in Hungary, one of the most promising new democracies at the time of the collapse of communism. How can we explain this unexpected process? Is Hungary in some way different from well-established democracies? Is it the case that Hungarians, or more generally Eastern Europeans, think differently from their Western counterparts, and hold to a different set of social and political values? Do Hungarians display a tendency of “system derogation”: a motivated belief that

their social and political system is inherently unfair, unjust and corrupt? Our study investigates system derogation, and the demographic and political variables associated with system derogatory beliefs. In the following, we briefly introduce the theoretical background of our research, namely the just-world hypothesis, system justification theory, and the concepts of need for closure, need for cognition, and authoritarianism.

Theoretical Background

According to the just-world hypothesis (Lerner & Miller, 1978), people are motivated to perceive the world as a just place where people usually get what they deserve. Many studies support the existence of this motivation (Lerner, 1970, 1977; Lerner & Miller, 1978).

System justification theory (Jost & Banaji, 1994) suggests that people not only believe in the justness of the world at a general level but also justify the current political, economic, and social establishment. One of the main functions of justifying the system is that it can help to minimize the unpredictable, unjust, and oppressive nature of social reality (Jost & Banaji, 1994). Many phenomena that do not conform to the framework of the traditional self and in-group justification theories can be explained by system justification (e.g., negative in-group stereotypes, out-group favoritism, working-class conservatism, and the rejection of equity policies by disadvantaged groups; Glick & Fiske, 2001; Jost, Blount, Pfeffer, & Hunyady, 2003; Jost & Burgess, 2000; Jost, Glaser, Kruglanski, & Sulloway, 2003a; Jost, Pelham, & Carvallo, 2002). There is a stronger version of the theory which holds that “people who are most disadvantaged by the status-quo would have the greatest psychological need to reduce ideological dissonance and would therefore be more likely to support, defend, and justify existing social systems, authorities, and outcomes” (Jost, Pelham, Sheldon, & Sullivan, 2003, p. 13). Jost, Pelham, and colleagues (2003) offer empirical evidence for this stronger version of the theory.

Most of the findings about just-system beliefs come from the analyses of Western European and North American samples (Jost & Hunyady, 2005). A meta-analysis by Jost, Glaser, and colleagues (2003a) illustrates this very well: 67 percent of the samples in the database (22,818 cases, 88 samples from 12 countries) came from the United States, and the rest of the studies were conducted in other Western democracies.

A few studies report the mean level of system justification. The general finding is that the mean level is above the response scale's mid-point in the Western samples. Carter, Ferguson, and Hassin (2011) used the scale developed by Kay and Jost (2003), and reported a mean level of 5.03 ($SD = 1.38$) on a nine-point scale. In Jost, Pelham, and colleagues (2003), on a four-point scale, all subsamples scored significantly above the scale mid-point. The mean level for Northern Blacks was 2.96, for Northern Whites 3.34, for Southern Whites 3.39, and for Southern Blacks 3.44. After an experimental manipulation, the mean level of system justification was 4.44 on a nine-point scale for a U.S. sample (van der Toorn, Berkics, & Jost, 2010).

The few studies concerning the just-world hypothesis and system justification in Eastern European countries – namely, Hungary and Poland – paint a different picture. Hungarian and Polish people scored lower on just world beliefs than citizens of Western nations (Doliński, 1991; Sallay & Krotos, 2004; Wojciszke & Dowhyluk, 2006). The perceived justness of the society and trust in the current establishment are quite low (Kay, Czapiński, & Jost, 2009; van der Toorn et al., 2010; Wojciszke, Baryla, & Mikiewicz, 2008). In the above mentioned study by van der Toorn and colleagues (2010), the mean level of system justification was 3.81 (on a nine-point scale) for the Hungarian sample, significantly lower than the mean level of the U.S. sample.

There are many possible contributing factors to the differences between Western and Eastern European countries. One factor is the unfinished transition from socialism to capitalism in Eastern European countries (Kluegel & Mason, 2000). The former socialist society was built upon the principles of equality while the new democratic model advocates merit. The general public in these countries expressed heavy criticism regarding the justness of this new merit-based system (Fülöp, 2008). Polish and Hungarian citizens seem to be skeptical of the new establishment, and nostalgia for the former system and justification of the new one may be present at the same time (Jost, Glaser, et al., 2003b; Kay et al., 2009; van der Toorn et al., 2010).

The difference in social and historical development of Western and Eastern European states and nations is another possible contributing factor. In the Western context, the nation and the state overlapped and developed in harmony with one another, whereas in the Eastern context the nation was organized against the state. The state (system) was typically led by hostile foreign oppressors such as the Ottoman Turks, the Habsburgs, the Germans, and the Soviets (László, 2008, 2013). The fact that the establishments in the past typically worked against the members of the national group can lead to a general distrust and hostile attitude toward the current governmental system, even under the newly established democratic conditions. This is particularly the case when the society's expectations for a better life are frustrated in several ways.

Cognitive Style: The Needs for Closure and Cognition

Cognitive style is the consistent pattern of acquiring and processing information (Messick, 1976). People differ in the extent to which they favor certain answers over uncertain ones (Kruglanski, 1989), and also in the extent to which they prefer to take part in cognitive processes (Cacioppo & Petty, 1982).

Need for closure is the desire for “an answer on a given topic, any answer... compared to confusion and ambiguity” (Kruglanski, 1990, p. 337). The term dispositional need for closure refers to people who favor certain answers, are less cautious and considerate, accept fewer possibilities, and are more confident in making decisions compared to people who require the avoidance of closure (Webster & Kruglanski, 1994). According to Webster and Kruglanski (1994), need for closure consists of five distinct aspects: preference for order; preference for predictability; decisiveness; discomfort with ambiguity; and closed-mindedness.

People not only differ in the extent to which they favor certain answers over uncertain ones, but also in the extent to which they prefer to participate and engage in thinking. Cacioppo and Petty's (1982) term need for cognition aims to grasp this difference among people. Webster and Kruglanski (1994) found a low and negative correlation between need for closure and need for cognition. The reason behind this correlation is that individuals who try to achieve closure attempt to solve problems fast (“freezing”); thus, they engage less in thinking (Kruglanski, Peri, & Zakai, 1991).

Need for closure is frequently associated with conservative political beliefs, authoritarianism, and dogmatism (see Chirumbolo, 2002; Golec, 2001; Jost, Glaser, et al., 2003a,b; Kimmelmeier, 1997; Kruglanski, Pierro, Mannetti, & De Grada, 2006; Webster & Kruglanski, 1994). Conservative beliefs and authoritarianism are closure-friendly ways of thinking: both support stability, clarity, and order (Jost, Glaser, et al., 2003a).

However, Kossowska and Van Hiel (2003) argue that need for closure is a content-independent motivation, and can be related to any ideology which is able to provide closure in the given social, cultural, and historical context. In their own study, they found a negative correlation between need for closure and economic conservatism in Poland, while the same correlation was positive in a Flemish sample. Because economic progression was the

prevalent ideology in the long-lasting socialist era in Poland, economic progression is the closure-friendly way of thinking there. Based on this and other findings (see [Kruglanski, 1989](#)), [Kossowska and Van Hiel \(2003\)](#) argue that closure can be achieved by different contents in different contexts (e.g., leftist beliefs in the post-socialist countries).

Authoritarianism

Authoritarian beliefs can be related to both situational and personal variables ([Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950](#); [Duckitt & Fisher, 2003](#); [Heaven & Bucci, 2001](#)). People who score high on authoritarianism at a given moment can be described as individuals who subordinate themselves to the superiors of the group, abide by, and protect, the group's rules and norms, and are aggressive towards individuals who disobey or endanger these ([Altemeyer, 1981, 1988, 1996](#)).

Dispositional need for closure is a trait-like variable that is related to authoritarian beliefs. Authoritarianism facilitates the reduction of thinking time by offering already existing answers, which take their roots in tradition, stability, and norms, and by doing so, help to obtain closure ([Jugert, Cohrs, & Duckitt, 2009](#); [Rokeach, 1960](#); [Webster & Kruglanski, 1994](#)).

Authoritarianism in the Western European context also has a strong connection with conservative ideology and the preference of right-wing parties, politicians, and right-wing political beliefs ([Altemeyer, 1998](#); [Crowson, Thoma, & Hestevold, 2005](#); [de Regt, Smits, & Mortelmans, 2011](#); [Van Hiel & Mervielde, 2002](#)). [Pentony et al. \(2000\)](#) argue that the relationship between authoritarianism and political ideology might be different in the Eastern European context. They found a positive correlation between authoritarianism and the preference for socialist ideology in a Hungarian sample. [McFarland, Ageyev, and Abalakina \(1993\)](#) found that in the former Soviet Union the two groups who scored the highest on authoritarianism were the members of the communist party and the members of the extreme conservative party. [Pentony and his colleagues \(2000\)](#) argue that the concept of modeling might explain these results: most adults in post-socialist countries have spent most of their life under left-wing authorities thus "it is not surprising that authoritarians will model the left-wing in ideology and political parties if the authorities are left-wing" ([Pentony et al., 2000](#), p. 266). These findings also led to the rebirth of the debate about the existence of a leftist authoritarian ([Stone & Smith, 1993](#); [Van Hiel, Duriez, & Kossowska, 2006](#)).

The Present Research

The present research aimed to achieve two main goals. We assessed the magnitude of the relationship between just-world beliefs, system justification, need for closure, need for cognition, and authoritarianism in a nationally representative sample of 1000 Hungarian adults. Given the theoretical background of our study, a couple of questions seemed highly important: (a) whether Hungarians believe in the existence of a just world and a just system or not; (b) what is the correlation between just-world beliefs and system-justification tendencies; (c) what is the correlation between need for closure, authoritarianism, party preference and left-right self-placement, specifically whether need for closure is a content-independent motivation or it is strongly related to conservative and rightist ideologies; and (d) what is the correlation between system justification and need for closure?

A second aim of this study was to investigate how these psychological variables relate to political and demographic variables. Most importantly, we wanted to see whether disadvantaged groups in Hungary accept beliefs about a just-world and a just system, and whether there is a leftist version of authoritarianism in the Eastern European context.

The Political Context of Hungary in 2010

The research was conducted between February and March 2010, shortly before the national elections. The two rounds of Hungarian parliamentary elections were held on 11th and 25th of April 2010.

In Hungary, the significant parties can unequivocally be linked to their political orientation which they integrate into their manifesto. In the present study, parties are referred to in accordance with those orientations; namely, MSZP as social-democrats, the coalition of two parties Fidesz-KDNP as right-wing conservatives, Jobbik as radical, far right-wing, and LMP and SZDSZ as liberals (to simplify the analysis, the two independent liberal parties, LMP and SZDSZ, were collapsed into the category of “liberal party”). At the time of the survey, a small conservative party, MDF, had a caucus too, but eventually they were unable to form a caucus in the new National Assembly.ⁱ

At the time of the survey, the social-democrat MSZP was the governing political force, the conservative party coalition Fidesz-KDNP was the major opposition party, and two smaller political parties, the liberal SZDSZ and the conservative MDF, had parliamentary caucuses. MSZP held 186 seats, Fidesz-KDNP held 164 seats, SZDSZ 18, and MDF 11.

At the election, Fidesz-KDNP won a two-thirds majority of seats, followed by MSZP in the second place far behind. The newly emerging radical right-wing party Jobbik and the liberal LMP ranked third and fourth, respectively. This means that the political situation drastically changed one month after the data recording. A right-wing government emerged, traditional “system-changing” parties like SZDSZ and MDF were unable to form caucuses, and new political forces (Jobbik and LMP) found their places in the National Assembly.

Method

Participants

Our study was conducted with a nationally representative sample of 1,000 Hungarian adults. Data were collected over a two-month period from February 2010 to March 2010. We designed a stratified sample, applying the random walking method (see Cochran, 1977) and using a quota system based on the current data of the Hungarian Central Statistical Office.ⁱⁱ The strata were based on age, sex, and place of residence. Overall 3,980 Hungarian adults were approached by trained surveyors. 1,000 face-to-face interviews were successfully conducted (25%), 1,229 people refused to participate (31%) and 1,751 people (44%) did not conform to the used quotas. The participants were informed that the data collection was voluntary and anonymous, and that there were no right or wrong answers. They were also informed that the data collected would be used only for scientific research purposes and that we did not have any connection with public or non-governmental organizations other than the University of Pécs. The participants did not receive any material compensation for their participation.

The participants were 1,000 Hungarian adults (527 females and 473 males). The mean age of the participants was 45.4 years ($SD = 16.5$). A detailed description of our sample is shown in the Appendix. There are also two Hungarian web-sites which report the full data collection and results in Hungarian language.ⁱⁱⁱ Regarding political party affiliation, our sample was very similar to the samples of public opinion polls which were conducted around the same time by independent Hungarian polling companies (Medián, Gallup), confirming the representativeness of our sample.

Measures

Unless otherwise indicated below, the measures used were abridged versions of previously developed measures and were translated into Hungarian by our research team. All items are shown in the Appendix in both English and Hungarian language.

Just-World Beliefs

Just-world beliefs were measured by an abridged version of [Dalbert's \(1999\)](#) scale. This version included eight statements, and two sub-scales: general belief in a just world and personal belief in a just world. Participants indicated their degree of agreement with each item on a 4-point scale ranging from *absolutely disagree* (1) to *absolutely agree* (4).

System Justification

System justification was measured by an abridged version of [Kay and Jost's \(2003\)](#) scale. This version included six statements (e.g., "In general, you find society to be fair"). Participants indicated their agreement with each item on a 4-point scale ranging from *absolutely disagree* (1) to *absolutely agree* (4).

Need for Closure

Need for closure was measured by an abridged version of the original need for closure scale developed by [Webster and Kruglanski \(1994\)](#). The items were translated into Hungarian by [Csanádi, Harsányi, and Szabó \(2009\)](#). This version included four items that represented four distinct aspects of need for closure: (a) need for order ("I enjoy having a clear and structured mode of life"), (b) decisiveness ("I tend to put off making important decisions until the last possible moment"); (c) discomfort with ambiguity ("I do not like situations that are uncertain"); and (d) closed-mindedness ("When thinking about a problem, I consider as many different opinions on the issue as possible"). Participants indicated their agreement with each item on a 4-point scale ranging from *absolutely disagree* (1) to *absolutely agree* (4).

Authoritarianism

In order to measure authoritarianism, six statements were used. Three items were selected from the original F-scale by [Adorno and his colleagues \(1950\)](#). Three items were added by the authors. Participants responded to each item on a 4-point scale ranging from *absolutely disagree* (1) to *absolutely agree* (4).

Political and Demographic Variables

Participants were asked to indicate their political orientation on a 7-point scale ranging from 1 ("extreme left") to 7 ("extreme right"). We also asked participants to indicate their party preference by answering the following question: "Which party would you vote for if elections were held this Sunday?" Participants also indicated their age, gender, level of education, place of residence, monthly income, and subjective economic situation (see Appendix).

Preliminary Analyses

Before proceeding with the data analysis, confirmatory factor analysis using maximum likelihood estimation was applied in order to confirm our intended measurement model. The items were postulated to load on different latent factors, namely general just world beliefs, personal just world beliefs, just system beliefs, need for cognition, need

for closure, and authoritarianism. No secondary loadings were specified. The suggested six-factor model yielded poor fit indices: $\chi^2(367) = 2062.121$, $p < .05$, $\chi^2/df = 5.619$, GFI = .862, CFI = .745, RMSEA = .068. According to Leach et al. (2008), the benchmark for RMSEA values is .08, and for fit indices such as GFI and CFI .930. Based on the poor fit indices, a serious revision and re-specification of the model was needed. Four items were excluded from the model because they loaded on their constituent factor below .40. The need for closure items did not form a coherent factor: all but one item had a loading below .40 on the suggested latent factor (see all excluded items in the Appendix). After the exclusion of these four items (one item from the general just world belief scale, one from the system justification scale, and two from the authoritarianism scale) and the need for closure factor, the now five-factor model yielded adequate fit indices: $\chi^2(179) = 743.541$, $p < .05$, $\chi^2/df = 4.154$, GFI = .930, CFI = .887, RMSEA = .056. In line with the results of the confirmatory factor analysis, in the subsequent analysis we used a three-item version of the global just world beliefs scale, a four-item version of the personal just world beliefs scale, a five-item version of the system justification scale, a five-item version of the need for cognition scale, a four-item version of the authoritarianism scale, and separately the four items which assess different aspects of need for closure (need for order, decisiveness, discomfort with ambiguity, and closed-mindedness).

Results

Descriptive and Reliability Statistics and Correlations Between the Measures

As the first step of data processing, descriptive statistics were obtained concerning our main variables. Table 1 provides a summary of means, standard deviations, Cronbach's alphas, and correlations.

Table 1

Descriptive statistics and correlations between measures (N = 1000)

Measure	1	2	3	4	5	6	7	8	9
1. General Just World Beliefs	-	.56**	.49**	-.06	-.05	.01	.01	-.05	.02
2. Personal Just World Beliefs		-	.36**	.10**	.03	.07	.03	-.001	-.14**
3. System Justification			-	-.04	-.19	-.03	.08	-.16**	.11**
4. Need for Cognition				-	-.03	.08	.01	-.05	-.47**
5. Authoritarianism					-	.29**	-.11**	.31**	-.25**
6. Need for Order						-	.22**	.23**	-.27**
7. Decisiveness							-	-.01	-.03
8. Discomfort with Ambiguity								-	-.16**
9. Closed-mindedness									-
<i>M</i>	2.30	2.53	1.84	2.67	3.10	3.21	2.50	3.39	1.73
<i>SD</i>	.65	.59	.50	.63	.50	.75	.94	.71	.71
α	.66	.80	.68	.75	.67	-	-	-	-

* $p < .05$. ** $p < .01$, two-tailed tests.

The descriptive results showed that the mean score on the system justification scale was lower than the midpoint of the scale. The mean level of the Hungarian sample for the item "Everyone has a fair shot at wealth and happiness" was 1.95 ($SD = 0.82$), which can be directly compared to Jost, Pelham, and colleagues' (2003) findings for similar items ("Anyone who is willing to work hard has a good chance of succeeding", and "If people work hard enough,

they can make a good life for themselves”). In their Northern American sample, the mean level for the sum scores of these items was significantly above the scale mid-point of 2.5.

In accordance with the notion that just world beliefs and system justification partly overlap (Jost & Hunyady, 2005), the two concepts were positively correlated in this sample. The global belief in a just world was more closely related to system justification than the personal belief in a just world. Authoritarian beliefs were significantly correlated with every aspect of need for closure: the sum score of the authoritarian items was positively correlated with need for order and discomfort with ambiguity. There was a weak, negative relationship between authoritarianism and decisiveness. Surprisingly, there was a negative correlation between closed-mindedness and authoritarianism. Finally, closed-mindedness correlated negatively with need for cognition.

The Relationship Between Just World Beliefs, Just System Beliefs, Need for Cognition, Aspects of Need for Closure, Authoritarianism, and Political/Demographic Variables

A series of multiple hierarchical regression analyses were conducted in order to test the relationships between our main variables and various political and demographic variables. In each regression analysis, a main variable (general belief in a just world, personal belief in a just world, just system beliefs, need for closure, the four aspects of need for cognition, and authoritarianism) was entered as the dependent variable, while the political and demographic variables were entered as predictor variables (and in some cases items which were measuring cognitive style as a third set of variables). Place of residence, party affiliation, and level of education were dummy-coded for all analyses. For party affiliation we used four dummy variables and Fidesz-KDNP was the reference category. The four dummy variables were MSZP (social-democrat party), Liberal parties (SZDSZ and LMP), Jobbik (far right-wing party), and one category for people who did not want to answer, were uncertain, chose “other party”, or did not have the intention to vote. We decided to omit the predictor variable “income” because 194 participants did not reveal this information. The inclusion of this variable in the analyses would have led to a sample of 806 participants instead of 1,000 participants. We were still able to measure our participants’ economic situation with another variable that assessed the subjective economic situation of our participants (“subjective economic situation”). Three values were created for this variable: “good subjective economic situation” (“I do not have any financial problem”, “I do not have financial problems, but I have to live within my means”), “moderate subjective economic situation” (“I can’t buy everything I want, and usually run out of money before the end of the month”), and “poor subjective economic situation” (“I have serious financial troubles”) Subjective economic situation was a dummy variable in the analyses and “poor economic situation” was used as the reference category. For age and left-right self-placement we also measured the non-linear, quadratic effects. In order to do this, both variables were centered before creating the quadratic terms.

Demographic variables (place of residence, gender, age, level of education, subjective economic situation) were entered first in the model and the political variables (political party affiliation, left-right self-placement) second. When authoritarianism was the dependent variable, we also entered need for cognition and the four items of need for closure in a third step. When system justification was the dependent variable, need for cognition, the need for closure items, and authoritarianism were all entered as predictor variables in the third step. These additional steps were intended to examine whether the impact of cognitive style on authoritarianism and the impact of authoritarianism on system justification are culture-specific or universal phenomena.

Table 2 provides the results of the multiple hierarchical regression analyses for general just world beliefs and personal just world beliefs. Six significant predictors were identified for general beliefs in a just world, and five

significant predictors were found for personal beliefs in a just world. Participants' subjective economic situation was the most powerful predictor: people who evaluated their economic situation as good or moderate believed in the existence of a general and personal just world more than people who considered their economic situation poor. Participants who did not live in the capital had lower scores in both scales than participants whose place of residence was Budapest. Educated participants had stronger beliefs in the existence of a general and personal just world. Older participants had higher scores in personal just world belief. Interestingly, voters of Jobbik, the far right political party of Hungary, had lower scores on general just world beliefs, but not on personal just world beliefs.

Table 2

Multiple Regression Analyses After the Second Set of Predictors (Political Predictors) Were Added to the Model. Dependent Variables: General Just World Beliefs and Personal Just World Beliefs (N = 1000)

Variables	General Just World Beliefs			Personal Just World Beliefs		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	2.292	.114		2.487	.104	
Gender	-.072	.041	-.056	-.038	.037	-.032
Age Linear	-.009	.005	-.220	-.010	.004	-.274**
Age Quadratic	.000	.000	.219	.000	.000	.229
Secondary School	.086	.046	.064	.027	.042	.022
University Degree	.158	.066	.084*	.137	.060	.080*
City with County's Rights	-.152	.067	-.094*	-.094	.061	-.064
City	-.147	.061	-.105*	-.080	.056	-.062
Village	-.093	.061	-.067	-.125	.055	-.099*
Moderate Economic Situation	.210	.070	.160**	.280	.064	.233**
Good Economic Situation	.318	.071	.245**	.398	.065	.336**
Left-Right Self-Placement Linear	.038	.025	.100	.031	.023	.089
Left-Right Self-Placement Quadratic	.001	.015	.004	-.004	.013	-.021
Jobbik Voters	-.204	.068	-.104**	.000	.062	.000
LMP-SZDSZ Voters	-.069	.128	-.018	-.124	.117	-.035
MSZP Voters	-.113	.087	-.051	-.086	.079	-.043
Party Affiliation Not Known	-.046	.050	-.035	-.061	.045	-.050
Model Summary	$R^2 = .063, F(16, 983) = 4.102, p < .01$			$R^2 = .067, F(16, 983) = 4.411, p < .01$		

* $p < .05$. ** $p < .01$, two-tailed tests.

Table 3 provides the results of the multiple hierarchical regression analysis for need for cognition. Level of education, subjective economic situation, and gender had positive effects on need for cognition, whereas age had a negative effect. As expected, people with higher levels of education tended to engage in information processing more than people with lower levels of education. Male participants and younger participants also had a higher need for cognition, and people whose economic situation was better (compared to female participants, older participants, and people whose economic situation was worse).

Table 3

Multiple Regression Analysis After the Second Set of Predictors (Political Predictors) Were Added to the Model. Dependent Variable: Need for Cognition ($N = 1000$)

Variables	Need for Cognition		
	<i>b</i>	<i>SE</i>	β
(Constant)	2.243	.103	
Gender	.128	.037	.102**
Age Linear	.000	.004	-.012
Age Quadratic	.000	.000	-.094
Secondary School	.253	.042	.196**
University Degree	.564	.059	.310**
City with County's Rights	.104	.060	.067
City	.154	.056	.114**
Village	.013	.055	.010
Moderate Economic Situation	.144	.063	.113*
Good Economic Situation	.156	.065	.125*
Left-Right Self-Placement Linear	-.035	.022	-.095
Left-Right Self-Placement Quadratic	.010	.013	.047
Jobbik Voters	.102	.065	.063
LMP-SZDSZ Voters	.090	.116	.024
MSZP Voters	.062	.079	.029
Party Affiliation Not Known	.006	.045	.004
Model Summary	$R^2 = .179, F(16, 983) = 13.383, p < .01$		

* $p < .05$. ** $p < .01$, two-tailed tests.

Table 4 provides the results of the multiple hierarchical regression analyses for need for order and decisiveness, and Table 5 for discomfort with ambiguity and closed-mindedness. Age, place of residence, and subjective economic situation were consistent predictors of different aspects of need for closure. Younger participants scored significantly lower on need for order, decisiveness, and discomfort with ambiguity. Participants who evaluated their subjective economic situation as good or moderate scored higher on need for order and decisiveness than participants who evaluated their subjective economic situation as poor. However, poor economic situation was positively related to closed-mindedness. Place of residence was a significant predictor for all aspects of need for closure; participants who lived in Budapest had significantly lower scores on need for order and discomfort with ambiguity, and had higher scores on decisiveness. Somewhat surprisingly, participants who lived in the capital had also higher scores on closed-mindedness. We found a weak but significant curvilinear effect of left-right self-placement on need for order. To demonstrate this effect we created two categories: “non-extreme left-right self-placement” (values between 2 and 6) and “extreme left-right self-placement” (values 1 and 7), and compared the mean level of need for order for these two groups. People who placed themselves in the “extreme left” or “extreme right” category ($N = 273$) scored higher on need for control ($M = 3.33, SD = 0.68$) than the “non-extreme” group ($M = 3.18, SD = 0.77, N = 727$), $t(998) = -0.242, p < .05$.

Table 4

Multiple Regression Analyses After the Second Set of Predictors (Political Predictors) Were Added to the Model. Dependent Variables: Need for Order and Decisiveness ($N = 1000$)

Variables	Need for Order			Decisiveness		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	2.265	.129		1.752	.164	
Gender	-.038	.046	-.025	.054	.059	.029
Age Linear	.018	.005	.405**	.011	.007	.189**
Age Quadratic	.000	.000	-.189	.000	.000	-.014
Secondary School	.052	.052	.034	.167	.066	.087*
University Degree	.087	.074	.040	.149	.095	.055
City with County's Rights	.292	.075	.157**	.083	.096	.036
City	.177	.069	.109*	-.091	.088	-.045
Village	.333	.069	.208**	-.163	.088	-.081
Moderate Economic Situation	.150	.079	.099	.300	.101	.158**
Good Economic Situation	.150	.081	.101	.393	.103	.210**
Left-Right Self-Placement Linear	-.051	.048	-.103	-.030	.036	-.055
Left-Right Self-Placement Quadratic	.049	.017	.185**	.021	.021	.065
Jobbik Voters	.119	.076	.053	-.026	.097	-.009
LMP-SZDSZ Voters	-.090	.145	-.020	-.122	.184	-.021
MSZP Voters	.019	.099	.007	.088	.125	.028
Party Affiliation Not Known	.109	.056	.072	.045	.071	.024
Model Summary	$R^2 = .096, F(16, 983) = 6.497, p < .01$			$R^2 = .068, F(16, 983) = 4.457, p < .01$		

* $p < .05$. ** $p < .01$, two-tailed tests.

Table 6 provides the results of the multiple hierarchical regression analysis for system justification and authoritarianism. Both regression analyses had three sets of predictor variables: demographic variables, political variables, and finally cognitive style for authoritarianism, and cognitive style and authoritarianism for system justification.

Authoritarianism was predicted by level of education and cognitive style. Level of education was a negative predictor: the more educated the participant was the less he or she held authoritarian beliefs. Need for order and discomfort with ambiguity were positive predictors of authoritarianism, while decisiveness and closed mindedness were negative predictors. Political party preference was not a significant predictor: the mean level of authoritarianism score was above the mid-point of the scale for all sub-samples and very similar among people with different party affiliation ($M_{\text{Fidesz-KDNP}} = 3.08, SD = 0.48$; $M_{\text{Jobbik}} = 3.19, SD = 0.51$; $M_{\text{MSZP}} = 3.11, SD = 0.52$; $M_{\text{LMP-SZDSZ}} = 3.00, SD = 0.48$). We found a weak but significant curvilinear effect of left-right self-placement on authoritarianism. People who placed themselves in the “extreme left” or “extreme right” category ($N = 273$) scored higher on authoritarianism ($M = 3.16, SD = 0.51$) than the “non-extreme” group ($M = 3.07, SD = 0.77, N = 727$), $t(998) = -2.15, p < .05$.

Table 5

Multiple Regression Analyses After the Second Set of Predictors (Political Predictors) Were Added to the Model. Dependent Variables: Discomfort with Ambiguity and Closed-mindedness ($N = 1000$)

Variables	Discomfort with Ambiguity			Closed-mindedness		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	3.083	.125		2.074	.125	
Gender	-.052	.045	-.037	.096	.045	.067*
Age Linear	.003	.005	.069*	.000	.005	-.005
Age Quadratic	.000	.000	.010	.000	.000	.013
Secondary School	-.020	.050	-.014	-.080	.050	-.055
University Degree	-.072	.072	-.035	-.203	.072	-.098**
City with County's Rights	.041	.073	.023	-.128	.073	-.072
City	.317	.067	.206**	-.201	.067	-.131**
Village	.230	.067	.152**	-.163	.067	-.107*
Moderate Economic Situation	.084	.077	.059	-.217	.077	-.152**
Good Economic Situation	.053	.078	.038	-.243	.078	-.172**
Left-Right Self-Placement Linear	.021	.027	.050	-.009	.027	-.022
Left-Right Self-Placement Non-Linear	.017	.016	.068	-.008	.016	-.030
Jobbik Voters	-.024	.074	-.011	-.145	.074	-.068*
LMP-SZDSZ Voters	-.024	.074	-.011	-.077	.140	-.018
MSZP Voters	-.078	.095	-.032	.272	.095	.113**
Party Affiliation Not Known	-.042	.054	-.029	.078	.054	.054
Model Summary	$R^2 = .055$, $F(16, 983) = 3.599$, $p < .01$			$R^2 = .062$, $F(16, 983) = 4.078$, $p < .01$		

* $p < .05$. ** $p < .01$, two-tailed tests.

System justification was predicted by party preference, subjective economic situation, level of education, place of residence, and cognitive style. Voters of Jobbik, the far-right political party of Hungary, displayed lower levels of system justification than voters of Fidesz-KDNP, the conservative right political party ($M_{\text{Jobbik}} = 1.66$, $SD = 0.47$; $M_{\text{Fidesz-KDNP}} = 1.83$, $SD = 0.47$), and MSZP, the left social democrat party ($M_{\text{MSZP}} = 1.97$, $SD = 0.51$). Voters of MSZP scored significantly higher on system justification than voters of Fidesz-KDNP. Voters of liberal parties have similar mean level scores as voters of MSZP ($M_{\text{LMP-SZDSZ}} = 1.96$, $SD = 0.51$). More educated participants and participants who had a better subjective economic situation also justified the current establishment more than less educated participants and participants who had a worse subjective economic situation. People who lived in villages had significantly lower scores than people who lived in the capital. Discomfort with ambiguity was a negative predictor of system justification, while closed-mindedness was a positive predictor.

Table 6

Multiple Regression Analyses After the Third Set of Predictors (Cognitive Style for Authoritarianism and Cognitive Style and Authoritarianism for System Justification) Were Added to the Model. Dependent Variables: Authoritarianism and System Justification (N = 1000)

Variables	Authoritarianism			System Justification		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	2.812	.156		2.375	.192	
Gender	.017	.029	.017	-.032	.031	-.032
Age Linear	-.003	.003	-.102	-.004	.004	-.104
Age Quadratic	.000	.000	.177	.000	.000	.155
Secondary School	-.060	.033	-.058	.030	.035	.029
University Degree	-.118	.048	-.081*	.124	.052	.085*
City with County's Rights	-.061	.047	-.049	-.091	.050	-.073
City	.028	.044	.026	-.059	.047	-.054
Village	-.024	.043	-.023	-.093	.046	-.086*
Moderate Economic Situation	-.033	.049	-.032	.138	.053	.136**
Good Economic Situation	-.029	.051	-.029	.292	.054	.291**
Left-Right Self-Placement Linear	-.033	.017	-.032	.019	.019	.065
Left-Right Self-Placement Non-Linear	.021	.010	.117*	-.013	.011	-.075
Jobbik Voters	.073	.047	.048	-.128	.051	-.084*
LMP-SZDSZ Voters	-.001	.089	-.000	.059	.095	.019
MSZP Voters	.015	.061	.009	.116	.065	.068
Party Affiliation Not Known	.039	.035	.038	.013	.037	.012
Need for Cognition	-.076	.028	-.095**	-.041	.030	-.052
Need for Order	.142	.021	.212**	.038	.023	.057
Decisiveness	-.086	.016	-.162**	.011	.017	.020
Discomfort with Ambiguity	.145	.021	.205**	-.081	.023	-.115**
Closed-Mindedness	-.155	.024	-.219**	.044	.026	.062
Authoritarianism	-	-	-	-.072	.038	-.087
Model Summary	$R^2 = .235, F(21, 978) = 14.308, p < .01$			$R^2 = .135, F(22, 977) = 6.920, p < .01$		

* $p < .05$. ** $p < .01$, two-tailed tests.

Discussion

The main objective of this study was to investigate the relationship between psychological variables (general and personal just world beliefs, just system beliefs, need for cognition, need for closure, and authoritarianism) and also their relationship with various political and demographic variables in a post-socialist context. Political sociology and political psychology have always been open to the possibility that some phenomena might function differently in different cultures (Pentony et al., 2000). Central/Eastern European samples are excellent subjects to test this possibility (see also Duckitt, 2001; Duckitt, Wagner, du Plessis, & Birum, 2002; Duriez, Van Hiel, & Kossowska, 2005).

The core finding of this study is that Hungarian people in general do not justify the current establishment. This result is in conflict with both the original version of system justification (all social groups participate in system justification in one way or another) and the "stronger" version of the theory (due to cognitive dissonance, the most disadvantaged groups justify the system the most; Jost, Pelham, et al., 2003). The mean level of system justification

was quite low in the overall sample (below the mid-point of the scale), but real criticism of the system comes from the disadvantaged groups such as the voters of the political opposition (voters of conservative right-wing and far right political parties), less educated people, those who have bad economic conditions, and those who live in small cities and villages.

It seems that system justification is considerably weaker in Hungary than in its Western counterparts: in Western European and North American samples the mean level of system justification is usually significantly higher than the mid-point of the scale (e.g., [Carter et al., 2011](#); [Jost, Pelham, et al., 2003](#); [van der Toorn et al., 2010](#)), while in our representative sample the mean level of system justification was significantly lower than the mid-point of the scale.

Given the descriptive nature of the data, one can only speculate about the possible explanations underlying the lack of system justification in this representative Hungarian sample. One not too distant explanation relates to the time frame of our study: the data were collected shortly before the national parliamentary elections so the system was in a period of possible change. However, we believe that this possibility can only offer a limited explanation for our results. First, statements regarding system justification did not directly focus on the current government, but were related to the perceived justness of general social conditions in Hungary that might be understood in the framework of a relatively new democratic system in the specific political context. Second, the upcoming elections cannot explain the fact that supporters of the governing party did not justify the system either (voters of MSZP, the ruling party, had a significantly lower score than the mid-point of the scale). Furthermore, the findings are in harmony with the results of the few surveys from Eastern/Central European countries concerning system justification, and to our knowledge, these studies were not conducted prior to national elections. Based on our findings and on the findings of [Wojciszke et al. \(2008\)](#), [Kay et al. \(2009\)](#), [van der Toorn et al. \(2010\)](#), there is reliable evidence that the Polish and Hungarians do not justify the system and do not view it as legitimate. Post-socialist societies are in the middle of an unfinished transition from socialism to democracy. [Kreidl \(2000\)](#) suggests that the separation from the socialist ideal of equality has not occurred yet, thus growing economic and social inequalities are understood to be unjust. Probably the most significant difference between the socialist and capitalist systems is to be found in the choice of preferred values: equality or merit. Such differences in values directly influence the extent to which the system is perceived as just or unjust. For example, in a country which has been a capitalist democracy for a long time, like the United States, merit-based rewarding is more preferable than the idea of equality. People have to be rewarded in accordance with their efforts and/or their abilities to perceive the system as just ([Jost & Kay, 2010](#)). The situation is very different in the case of a post-socialist country such as Hungary. The communist state clearly stressed equality over merit, and so citizens of post-communist countries were socialized in a system which preferred equality to merit. Citizens of post-socialist states generally consider the perceived large economic inequalities unjust, and as a result, they question the system as well.

We believe that even the above-mentioned reason is only a partial explanation for the almost total lack of system justification in the representative Hungarian sample, which included young people who did not undergo socialization in the communist era. These young people did not justify the system more than older respondents as age was not a significant predictor of holding just-system beliefs. So to arrive at a fuller explanation, one has to turn to the historical trajectory of the Hungarian group and to the collective identity based on this historical trajectory ([László, 2013](#)). In the Hungarian history, after the defeat suffered in the battle of Mohács in 1526 against the Ottoman army, long centuries of occupation followed. First the Turkish empire, then the Habsburgs, the Germans, and finally the Soviets ruled the country. The cultural nation was organized against a hostile, alien, and unjust system, as

opposed to the Western model, where the development of the nation and the state progressed hand in hand. [Bar-Tal \(2000\)](#) and [László \(2003\)](#) argue that the history of a group acts as an orientating force for group members. It organizes experiences and provides meanings. For Hungarians, recurrent historical experiences suggest that instead of people's interest, the system (the state and its representativeness) boast alien and selfish interests. Under the conditions of a newly established democracy, frustrations of the expectations on a better life may strengthen distrust and hostility toward the system. Both general and personal beliefs in a just world moderately correlated with system justification, suggesting that these concepts are related to but distinguishable from each other.

The mean level of authoritarianism was quite high in the overall sample. Older and less educated participants had higher authoritarianism scores compared to younger and more educated participants. As predicted, cognitive style and left-right self-placement were significant predictors of authoritarian beliefs. Need for cognition (preference to engage in thinking) was a significant predictor of authoritarianism, while different aspects of need for closure related differently to authoritarianism: need for order and discomfort with ambiguity were positive predictors, while decisiveness and closed-mindedness were negative predictors. People who do not like to engage in thinking, prefer an unambiguous and structured way of life, and have difficulties of decision making were more likely to have authoritarian beliefs. This result is in accordance with the findings of Western samples ([Kruglanski et al., 2006](#); [Webster & Kruglanski, 1994](#)). Most of the authoritarian beliefs are based on stability, tradition, and order, so they can be perceived as an "easy way out". The nature of these beliefs can help to facilitate the process of obtaining closure ([Jugert et al., 2009](#); [Rokeach, 1960](#); [Webster & Kruglanski, 1994](#)). The relationship between authoritarianism and left-right self-placement was non-linear: participants who considered themselves "extreme" (either left or right) had significantly higher scores on authoritarianism than non-extreme participants. There is debate about the so-called "extremity hypothesis", which suggests that political leftists share the same characteristics (e.g., rigidity, dogmatic adherence) as political rightist and that the two extremes are more similar to each other than either of them to non-extreme left-right ideology ([Greenberg & Jonas, 2003](#); [Jost, Glaser, et al., 2003b](#); [Thorisdottir, Jost, Liviatan, & Shrout, 2007](#)). Political leftists in our sample had similar authoritarianism scores, and also need for order scores, as political rightists. However, these results have to be interpreted very cautiously as there were only seven participants in the "extreme left" category.

Another goal of the study was to examine the relationship between two dimensions of cognitive style (need for closure and need for cognition). Similarly to the results in Western samples ([Webster & Kruglanski, 1994](#)), we found a significant moderate, negative correlation between closed-mindedness and need for cognition. Discomfort with ambiguity, need for order, and decisiveness were not related to need for cognition.

In addition to these findings, the study also provided insight into the relationships between psychological variables and various demographic and political variables. Economic situation, level of education, and place of residence were the most important predictors of the phenomena investigated. Participants who considered themselves in a bad economic situation believed in a just world and just system to a lesser extent than other participants. Bad economic situation was also negatively related to need for cognition, and positively to closed-mindedness. Levels of education predicted significantly many aspects of cognitive style (need for cognition, decisiveness, closed-mindedness). Place of residence was a significant predictor for all variables except authoritarianism. Age played an important role in having need for closure and authoritarian beliefs: older participants tended to show higher need for order, decisiveness, and discomfort with ambiguity, and they were more likely to agree with authoritarian statements than younger participants. Most of these results are in harmony with the results obtained previously in Western samples.

The main limitation of the present study is that it used a cross-national survey design, which can observe only correlations and does not tell much about causal effects. Therefore one should be cautious with any hypothesis about a possible causal link between the measured variables (e.g., between cognitive style and authoritarianism). An additional limitation relates to the weaknesses of the measurement model: three scales in our study had low reliability, and the items of need for closure did not form a coherent factor. Also the items which assessed authoritarian beliefs should be revised in subsequent studies, and we should use more common measures of authoritarianism such as the RWA (Altemeyer, 1996) in the future. Although in our regression models we found many significant predictors, the total variance explained by these predictors was quite low. This suggests that there are more important but yet unidentified predictors of the examined phenomena. For example, we did not measure values in our study, especially the values of equity and merit. Van der Toorn and her colleagues (2010) suggest that the perceptions of fairness is a strong predictor of system justification, and there is empirical evidence that Hungarian people do not think that this new merit-based system is fair (Fülöp, 2008). Including additional predictors (e.g., Schwartz's value scale, 1992, 1994, 2006; conservative beliefs, Kossowska & Van Hiel, 2003) should improve the explanatory power of our model.

In sum, our results support the notion that cultural universalism and cultural differences emerge simultaneously when it comes to psychological variables such as just-world beliefs, system justification, need for cognition, need for closure, and authoritarianism. Many of our findings are similar to findings obtained in Western samples. However, notable cultural differences were found as well. Most importantly, Hungarians hold just-world and just-system beliefs to a lesser extent than people living in Western democracies. Our stratified nationally representative sample can be characterized by "system derogation" and not "system justification": the belief that the social and political system is inherently unfair, unjust, and corrupt.

Notes

i) MSZP = Hungarian Socialist Party, FIDESZ = Hungarian Civic Alliance, KDNP = Christian Democratic People's Party, JOBBIK = Jobbik, the Movement for a Better Hungary, LMP = Politics Can Be Different, SZDSZ = Alliance of Free Democrats – Hungarian Liberal Party, MDF = Hungarian Democratic Forum

ii) <https://www.ksh.hu/?lang=en>

iii) Addresses of the web-sites: <http://www.kelemenkiado.hu/> and http://pszichologia.pte.hu/sites/pszichologia.pte.hu/files/files/files/dok/disszert/d-2013-kelemen_laszlo.pdf

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Competing Interests

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References

- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York, NY: Harper & Brothers.
- Altemeyer, B. (1981). *Right-wing authoritarianism*. Winnipeg, Canada: University of Manitoba Press.
- Altemeyer, B. (1988). *Enemies of freedom: Understanding right-wing authoritarianism*. San Francisco, CA: Jossey-Bass.
- Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, B. (1998). The other "authoritarian personality". In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 47-92). San Diego, CA: Academic Press.
- Bar-Tal, D. (2000). *Shared beliefs in a society: Social psychological analysis*. London, United Kingdom: Sage.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42(1), 116-131. doi:10.1037/0022-3514.42.1.116
- Carter, T. J., Ferguson, M. J., & Hassin, R. R. (2011). Implicit nationalism as system justification: The case of the United States of America. *Social Cognition*, 29(3), 341-359. doi:10.1521/soco.2011.29.3.341
- Chirumbolo, A. (2002). The relationship between need for cognitive closure and political orientation: The mediating role of authoritarianism. *Personality and Individual Differences*, 32(4), 603-610. doi:10.1016/S0191-8869(01)00062-9
- Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). New York, NY: Wiley.
- Crowson, H. M., Thoma, S. J., & Hestevold, N. (2005). Is political conservatism synonymous with authoritarianism? *The Journal of Social Psychology*, 145(5), 571-592. doi:10.3200/SOCP.145.5.571-592
- Csanádi, A., Harsányi, Sz. G., & Szabó, É. (2009). Lezárási igény kérdőív: A need for closure scale magyar verziójának tesztelése egyetemista mintán [Testing of the Hungarian version of need for closure scale on a university student sample]. *Hungarian Applied Psychology*, 11(1-2), 55-81.
- Dalbert, C. (1999). The world is more just for me than generally: About the personal belief in a just world scale's validity. *Social Justice Research*, 12(2), 79-98. doi:10.1023/A:1022091609047
- de Regt, S., Smits, T., & Mortelmans, D. (2011). Trends in authoritarianism: Evidence from 31 European countries. *The International Journal of Social Sciences and Humanity Studies*, 3(1), 395-404.
- Doliński, D. (1991). What is the source of the belief in an unjust Polish world? *Polish Psychological Bulletin*, 22, 43-51.
- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 33, pp. 41-113). San Diego, CA: Academic Press.
- Duckitt, J., & Fisher, K. (2003). The impact of social threat on worldview and ideological attitudes. *Political Psychology*, 24(1), 199-222. doi:10.1111/0162-895X.00322
- Duckitt, J., Wagner, C., du Plessis, I., & Birum, I. (2002). The psychological bases of ideology and prejudice: Testing a dual process model. *Journal of Personality and Social Psychology*, 83(1), 75-93. doi:10.1037/0022-3514.83.1.75

- Duriez, B., Van Hiel, A., & Kossowska, M. (2005). Authoritarianism and social dominance in Western and Eastern Europe: The importance of the sociopolitical context and of political interest and involvement. *Political Psychology, 26*(2), 299-320. doi:10.1111/j.1467-9221.2005.00419.x
- Fülöp, M. (2008). Educating the cooperative competitive citizen. In K. Tirri (Ed.), *Educating moral sensibilities in urban schools* (pp. 171-188). Rotterdam, the Netherlands: Sense Publishers.
- Glick, P., & Fiske, S. T. (2001). *Ambivalent stereotypes as legitimizing ideologies: Differentiating paternalistic and envious prejudice*. New York, NY: Cambridge University Press.
- Golec, A. (2001). *Need for cognitive closure and political conservatism: Studies on the nature of the relationship*. Paper presented at the annual meeting of the International Society of Political Psychology, Cuernavaca, Mexico, July 14-18.
- Greenberg, J., & Jonas, E. (2003). Psychological motives and political orientation: The left, the right, and the rigid. *Psychological Bulletin, 129*(3), 376-382. doi:10.1037/0033-2909.129.3.376
- Heaven, P. C. L., & Bucci, S. S. (2001). Right-wing authoritarianism, social dominance orientation and personality: An analysis using the IPIP measure. *European Journal of Personality, 15*(1), 49-56. doi:10.1002/per.389
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology, 33*(1), 1-27. doi:10.1111/j.2044-8309.1994.tb01008.x
- Jost, J. T., Blount, S., Pfeffer, J., & Hunyady, G. (2003). Fair market ideology: Its cognitive-motivational underpinnings. *Research in Organizational Behavior, 25*(1), 53-91. doi:10.1016/S0191-3085(03)25002-4
- Jost, J. T., & Burgess, D. (2000). Attitudinal ambivalence and the conflict between group and system justification motives in low status groups. *Personality and Social Psychology Bulletin, 26*(3), 293-305. doi:10.1177/0146167200265003
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003a). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*(3), 339-375. doi:10.1037/0033-2909.129.3.339
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003b). Exceptions that prove the rule: Using a theory of motivated social cognition to account for ideological incongruities and political anomalies: Reply to Greenberg and Jonas (2003). *Psychological Bulletin, 129*(3), 383-393. doi:10.1037/0033-2909.129.3.383
- Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science, 14*(5), 260-265. doi:10.1111/j.0963-7214.2005.00377.x
- Jost, J. T., & Kay, A. C. (2010). Social justice: History, theory, and research. In S. T. Fiske, D. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed., Vol. 2., pp. 1122-1165). Hoboken, NJ: Wiley.
- Jost, J. T., Pelham, B. W., & Carvallo, M. R. (2002). Non-conscious forms of system justification: Implicit and behavioral preferences for higher status groups. *Journal of Experimental Social Psychology, 38*(6), 586-602. doi:10.1016/S0022-1031(02)00505-X
- Jost, J. T., Pelham, B. W., Sheldon, O., & Sullivan, B. N. (2003). Social inequality and the reduction of ideological dissonance on behalf of the system: Evidence of enhanced system justification among the disadvantaged. *European Journal of Social Psychology, 33*(1), 13-36. doi:10.1002/ejsp.127
- Jugert, P., Cohrs, J. C., & Duckitt, J. (2009). Inter- and intrapersonal processes underlying authoritarianism: The role of social conformity and personal need for structure. *European Journal of Personality, 23*(7), 607-621. doi:10.1002/per.735

- Kay, A. C., Czaplinski, S., & Jost, J. T. (2009). Left-right ideological differences in system justification following exposure to complementary versus noncomplementary stereotype exemplars. *European Journal of Social Psychology, 39*(2), 290-298. doi:10.1002/ejsp.500
- Kay, A. C., & Jost, J. T. (2003). Complementary justice: Effects of "poor but happy" and "poor but honest" stereotype exemplars on system justification and implicit activation of the justice motive. *Journal of Personality and Social Psychology, 85*(5), 823-837. doi:10.1037/0022-3514.85.5.823
- Kimmelmeier, M. (1997). Need for closure and political orientation among German university students. *The Journal of Social Psychology, 137*(6), 787-789. doi:10.1080/00224549709595501
- Kluegel, J. R., & Mason, D. S. (2000). Market justice in transition. In D. S. Mason, J. R. Kluegel, & B. Wegener (Eds.), *Marketing democracy: Changing opinion about inequality and politics in East Central Europe* (pp. 161-187). Oxford, United Kingdom: Rowman & Littlefield Publishers.
- Kossowska, M., & Van Hiel, A. (2003). The relationship between need for closure and conservative beliefs in Western and Eastern Europe. *Political Psychology, 24*(3), 501-518. doi:10.1111/0162-895X.00338
- Kreidl, M. (2000). Perceptions of poverty and wealth in Western and post-communist countries. *Social Justice Research, 13*(2), 151-176. doi:10.1023/A:1007597807110
- Kruglanski, A. W. (1989). *Lay epistemics and human knowledge: Cognitive and motivational bases*. New York, NY: Plenum Press.
- Kruglanski, A. W. (1990). Motivations for judging and knowing: Implications for causal attribution. In E. T. Higgins & R. M. Sorrentino (Eds.), *The handbook of motivation and cognition: Foundation of social behavior* (Vol. 2, pp. 333-368). New York, NY: Guilford Press.
- Kruglanski, A. W., Peri, N., & Zikai, D. (1991). Interactive effects of need for closure and initial confidence on social information seeking. *Social Cognition, 9*(2), 127-148. doi:10.1521/soco.1991.9.2.127
- Kruglanski, A. W., Pierro, A., Mannetti, L., & De Grada, E. (2006). Groups as epistemic providers: Need for closure and the unfolding of group centrism. *Psychological Review, 113*(1), 84-100. doi:10.1037/0033-295X.113.1.84
- László, J. (2003). History, identity and narratives. In J. László & W. Wagner (Eds.), *Theories and controversies in societal psychology* (pp. 180-192). Budapest, Hungary: New Mandate.
- László, J. (2008). *Science of stories: An introduction to narrative psychology*. London, United Kingdom: Routledge.
- László, J. (2013). *Historical tales and national identity: An introduction to narrative social psychology*. London, United Kingdom: Routledge.
- Leach, C. W., Van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., . . . Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology, 95*(1), 144-165. doi:10.1037/0022-3514.95.1.144
- Lerner, M. J. (1970). The desire for justice and reactions to victims. In J. Macaulay & L. Berkowitz (Eds.), *Altruism and helping behavior* (pp. 205-229). New York, NY: Academic Press.
- Lerner, M. J. (1977). The justice motive: Some hypotheses as to its origins and forms. *Journal of Personality, 45*(1), 1-52. doi:10.1111/j.1467-6494.1977.tb00591.x
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin, 85*(5), 1030-1051. doi:10.1037/0033-2909.85.5.1030

- McFarland, S., Ageyev, V., & Abalakina, M. (1993). The authoritarian personality in the United States and the former Soviet Union: Comparative studies. In W. F. Stone, G. Lederer, & R. Christie (Eds.), *Strength and weakness: The authoritarian personality today* (pp. 199-225). New York, NY: Springer.
- Messick, S. (1976). Personality consistencies in cognition and creativity. In S. Messick (Ed.), *Individuality in learning* (pp. 4-22). San Francisco, CA: Jossey-Bass.
- Pentony, J. F., Petersen, K. S. E., Philips, O., Leong, C., Harper, P., Bakowski, A., & Gonzales, R. (2000). A comparison of authoritarianism in the United States, England, and Hungary with selected nonrandom samples. *European Psychologist*, 5(4), 259-268. doi:10.1027//1016-9040.5.4.259
- Rokeach, M. (1960). *The open and closed mind: Investigations into the nature of belief systems and personality systems* [In collaboration with Richard Bonier and others]. New York, NY: Basic Books.
- Sallay, H., & Krotos, H. (2004). The development of just world beliefs: A cross-cultural comparison between Japan and Hungary. *Pszichológia*, 24(3), 233-253.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25., pp. 1-65). New York, NY: Academic Press.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50(4), 19-45. doi:10.1111/j.1540-4560.1994.tb01196.x
- Schwartz, S. H. (2006). Value orientations: Measurement, antecedents and consequences across nations. In R. Jowell, C. Roberts, R. Fitzgerald, & G. Eva (Eds.), *Measuring attitudes cross-nationally: Lessons from the European Social Survey* (pp. 169-203). London, United Kingdom: Sage.
- Stone, W. F., & Smith, L. D. (1993). Authoritarianism: Left and right. In W. F. Stone, G. Lederer, & R. Christie (Eds.), *Strength and weakness: The authoritarian personality today* (pp. 144-156). New York, NY: Springer.
- Thorisdottir, H., Jost, J. T., Liviatan, I., & Shrout, P. E. (2007). Psychological needs and values underlying left-right political orientation: Cross-national evidence from Eastern and Western Europe. *Public Opinion Quarterly*, 71(2), 175-203. doi:10.1093/poq/nfm008
- van der Toorn, J., Berkics, M., & Jost, J. T. (2010). System justification, satisfaction, and perceptions of fairness and typicality at work: A cross-system comparison involving the U.S. and Hungary. *Social Justice Research*, 23(2-3), 189-210. doi:10.1007/s11211-010-0116-1
- Van Hiel, A., Duriez, B., & Kossowska, M. (2006). The presence of left-wing authoritarianism in Western Europe and its relationship with conservative ideology. *Political Psychology*, 27(5), 769-793.
- Van Hiel, A., & Mervielde, I. (2002). Explaining conservative beliefs and political preferences: A comparison of social dominance orientation and authoritarianism. *Journal of Applied Social Psychology*, 32(5), 965-976. doi:10.1111/j.1559-1816.2002.tb00250.x
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67(6), 1049-1062. doi:10.1037/0022-3514.67.6.1049
- Wojciszke, B., Baryla, W., & Mikiewicz, A. (2008). *Delegitimization of material wealth*. Unpublished manuscript.
- Wojciszke, B., & Dowhyluk, M. (2006). Immorality of success: When legitimization does not work. *Polish Psychological Bulletin*, 37(4), 213-220.

Appendix

Description of the sample

The participants were 1,000 Hungarian adults (527 females and 473 males). The mean age of the participants was 45.4 years ($SD = 16.5$).

Place of residence

- Budapest, the capital of Hungary ($N = 176$)
- City with county's rights ($N = 201$)
- City ($N = 304$)
- Village ($N = 319$)

Level of education

- Less than 8 years of education ($N = 47$)
- Finished primary school ($N = 436$)
- Finished secondary school ($N = 380$)
- Finished college ($N = 100$)
- Finished university ($N = 37$)

Subjective economic situation

- I do not have any financial problem ($N = 19$)
- I do not have financial problems, but I have to live within my means ($N = 457$)
- I can't buy everything I want, and usually run out of money before the end of the month ($N = 421$)
- I have serious financial troubles ($N = 103$)

Objective economic situation

- Less than 50,000 Hungarian Forints (HUF) per months (approximately 167 EUROS) ($N = 199$)
- Between 50,001 HUF and 200,000 HUF per months ($N = 582$)
- More than 200,001 HUF per months (approximately 667 EUROS) ($N = 25$)
- I do not know / I do not want to answer ($N = 194$)

Political party affiliation

- Fidesz, conservative right party ($N = 334$)
- Jobbik, far-right party ($N = 124$)
- LMP, liberal party ($N = 26$)
- MDF, conservative right party ($N = 14$)
- MSZP, social democrat party ($N = 95$)
- SZDSZ, liberal party ($N = 2$)
- Other party ($N = 10$)

- Do not want to answer ($N = 206$)
- Do not know (uncertain) ($N = 177$)
- Will not vote ($N = 5$)

Items of the scales

General just world beliefs

- I think basically the world is a just place / Azt gondolom, hogy a világ alapvetően egy igazságos hely.
- I believe that, by and large, people get what they deserve / Az emberek az életben általában azt kapják, amit megérdemelnek.
- I am confident that justice always prevails over injustice / Biztos vagyok benne, hogy az igazság mindig győzedelmeskedik az igazságtalanság fölött.
- I firmly believe that injustices in all areas of life are the exception rather than the rule / Szilárd meggyőződésem, hogy az igazságtalanságok az élet minden területén inkább kivételnek, mintsem általánosnak számítanak. (excluded item)

Personal just world beliefs

- I believe that I usually get what I deserve / Általában azt kapom, amit megérdemlek.
- I think that important decisions that are made concerning me are usually just / A velem kapcsolatban hozott fontos döntések általában igazságosak.
- In my life injustice is the exception rather than the rule / Az életben velem történő igazságtalanságok inkább kivételnek, mintsem általánosnak számítanak.
- I believe that most of the things that happen in my life are fair / A legtöbb dolog, ami az életemben velem történik helyénvaló.

System justification scale

- In general, I find society to be fair / Úgy gondolom, hogy a magyar társadalom tisztességes.
- Hungarian society needs to be radically restructured / A magyar gazdasági és társadalmi szerkezetet gyökeresen át kellene alakítani.
- Most policies serve the greater good / A legtöbb hazai politikai döntés a közjót szolgálja.
- Everyone has a fair shot at wealth and happiness / Magyarországon mindenkinek megvan a lehetősége a gazdagodásra és a boldogságra.
- Our society is getting worse every year / Társadalmunk állapota minden évben egyre rosszabb. (reverse-coded item)
- Hungary is the best country in the world to live in / Számomra a világon legszebb hely Magyarország. (excluded item)

Need for cognition

- I try to anticipate and avoid situations where there is a change I will have to think in depth about something / Kerülöm a sok gondolkodást igénylő helyzeteket. (reverse-coded item)
- The notion of thinking abstractly is appealing to me / Szeretek elvont, absztrakt módon gondolkodni.
- It's enough for me that something gets the job done, I don't care how or why it works / Számomra elég az, ha valami működik, nem igazán foglalkoztat, hogy miért és hogyan. (reverse-coded item)
- I really enjoy a task that involves coming up with new solutions to problems / Élvezem az olyan feladatokat, amelyekben új megoldásokat lehet találni egy problémára.
- I usually end up deliberating about issues even when they do not affect me personally / Gyakran gondolkodom olyan problémákról is, amelyek személyesen nem érintenek engem.

Need for closure

- I enjoy having a clear and structured mode of life / Szeretem a rendezett és világosan lefektetett szabályok szerinti életet.
- I tend to put off making important decisions until the last possible moment / Gyakran az utolsó pillanatban hozok meg fontos döntéseket. (reverse-coded item)
- I do not like situations that are uncertain / Nem szeretem a bizonytalan szituációkat.
- When thinking about a problem, I consider as many different opinions on the issue as possible / Amikor egy problémán gondolkodom, akkor a lehetséges legtöbb megoldást számba veszem. (reverse-coded item)

Authoritarianism

- Everybody has to know his or her place in life in terms of both superiority and inferiority / Az életben mindenkinek tudnia kell, hogy hol a helye, ki van felette és ki van alatta.
- It is both important to know how to obey and how to command / Fontos, hogy az ember tudjon engedelmessé válni és parancsolni is, ha szükség van rá.
- People can be divided into two distinct classes: the weak and the strong / Az embereket két csoportra lehet osztani: gyengékre és erősekre.
- Human nature being what it is, there will always be war and conflict / Az emberi természet olyan, amilyen, ezért mindig is lesznek háborúk.
- Some day it will probably be shown that astrology can explain a lot of things / Egyszer még ki fog derülni, hogy az asztrológia nagyon sok mindent megmagyaráz az életben. (excluded item)
- I would rather be told what to do than come up with my own decision every time / Jobban szeretem, ha valaki megmondja, hogy mit kell tennem, mintha nekem kellene mindenről döntenem. (excluded item)