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We examine support for the structural attribution of poverty in 24 post-communist countries (N = 37,307) for the period from 2006 to 2010 by considering: (1) individual-level characteristics, (2) country-level characteristics, and (3) interactions between individual- and country-level characteristics. At the individual-level, adherence to the norms of equity, the market economy, and work ethics all significantly weaken structural attribution of poverty. In contrast, support for the norms of equality, and personal experience with poverty significantly strengthen structural attribution of poverty. At the country-level, GDP growth significantly reduces structural attribution of poverty, while the GDP per capita and poverty rates do not have a significant influence. Interestingly, the overall contributions of all individual-level characteristics taken together appear to be stronger than those at

the country level. Finally, interactions between individual- and country-level characteristics suggest that the effects of support for equity and equality norms, the market economy, work ethics values, and experience with poverty become less relevant for structural attribution of poverty when a country experiences higher economic growth. Consequently, in the public's eye, individual-level and country-level characteristics are intertwined and interdependent.

Key words: poverty explanations, causes of poverty, Eastern Europe, Central Asia, Caucasus, Balkans.

The significance of differences in popular attributions of the causes of poverty and their influence on the development of government policies aimed at reducing poverty and inequality has been well documented in the research literature. In 1908, Simmel noted that the levels of welfare generosity were strongly associated with poverty attributions. Later on, in 1972, Feagin developed classification of popular attributions of the causes of poverty into the three broad groups: (1) structural; (2) individualistic; and (3) fatalistic. This classification has been used consistently in the examination of poverty attributions studies (Habibov, 2011; Kallio & Niemelä, 2014; Stephenson, 2000). Since the early 1970s, the development of universal welfare states in continental Europe has been commonly rationalized through prevailing structural attribution, while the development of residual welfare states in Anglo-Saxon countries has been associated with prevailing individualistic and fatalistic explanations (Alesina & Angeletos, 2002; Jordan, 1996; Kluegel, Csepeli, Kolosi, Orkeny, & Nemenyi, 1995).

With this background in mind, the objective of this paper is to examine the characteristics associated with the structural attribution for poverty in 24 post-communist countries for the period between 2006 and 2010. The specific research question of this study is: What individual-level and country-level characteristics can explain support for structural explanation of poverty in post-communist countries?

The transitions from centrally planned to market economies have led to significant increases in poverty in post-communist countries (Alam et al., 2005; Klugman, Micklewright, & Redmond, 2002; Milanovic & Ersado, 2012; Simai, 2006). In addition,

the collapse of centrally planned economies has changed the very nature of poverty (Habibov, 2011; Habibov & Fan, 2007; Klugman, 1997). During the communist era, poverty was associated with easily defined demographic groups, such as old-age pensioners, the disabled, and single mothers. As transition progressed, poverty has become more diffused, and these demographic characteristics ceased to be strong predictors of poverty. In their responses to growing poverty, the governments of transitional countries initiated a number of poverty- reduction initiatives that encompassed developing more effective social welfare programs and introducing active labor market policies.

However, the degree of public acceptance and support for these initiatives may be determined by the level of support for structural attribution of poverty (Habibov, 2011; Verwiebe & Wegener, 2000). The structural attribution of poverty strongly emphasizes the injustice of the current socio-economic order and stresses the need for collective actions to address social injustice (Kreidl, 1998, 2000). Structural attribution rejects individualistic explanations of poverty that suggest that the poor should be blamed for their poverty because of their loose moral codes, laziness, and lack of character and skills. The acceptance of individualistic explanations of poverty discourages solidarity with the poor and normalizes poverty and income inequality (Kallio & Niemelä, 2014; Kim, Yongwoo, & Yu-jeong, 2010; Reutter et al., 2006). As a result, acceptance of individualistic attributions of poverty undermine support for a welfare state and for other poverty reduction initiatives that are currently underway in post-communist countries (Habibov, 2011; Kreidl, 2000).

Structural attribution also rejects the fatalistic explanations that claim that poverty is an inevitable part of modern life that is rooted in bad luck. Fatalistic explanations allege that poverty is inevitable because of the uneven distribution of talents and abilities within the population. According to this view, poverty will never be fully eliminated, despite any social welfare and other poverty reduction initiatives that are put in place (Luhman, 1979; Stephenson, 2000). The acceptance of such fatalistic explanations significantly hinders support for the welfare state, since it legitimizes existing poverty by insisting on its inevitability (Cozzarelli, Wilkinson, & Tagler, 2001; Reutter et al., 2006).

In contrast to individualistic explanations, the structural attribution argues that poverty in post-communist countries is rooted in the political, social, and economic processes of transition, such as corruption, ineffective social protection, and unjust privatization, which should be rectified at the social level through the actions of state (Falkingham, 2005; Habibov, 2011). Contrary to fatalistic explanations, structural attribution argues that differences in abilities and talents should be redressed through state redistribution mechanisms. The structural attribution to poverty fosters solidarity with the poor, delegitimizes and denormalizes poverty, and buttresses support for the welfare state (Lepianka, Gelissen, & Van Oorschot, 2010; Niemelä, 2008; van Oorschot & Halman, 2000). Consequently, as Rawls (1971) notes, a structural attribution leads to greater support for those in need, "those with fewer native assets and to those born into the less favorable social positions. The idea is to redress the bias of contingencies in the direction of equality" (Rawls, 1971, pp. 100–101).

Although structural attribution of poverty is important, there are very few studies on structural attribution to poverty that cover the post-communist countries. Using data from the 1990 European Value Survey, van Oorschot and Halman (2000) assessed structural attribution in 22 countries, including 5 post-communist countries. Later, Lepianka et al. (2010) used newer data from the 1999 European Value Survey to examine a structural attribution of poverty in 24 countries, including 13 post-communist countries in Eastern Europe. Although both studies used different definitions of structural attribution, they concluded that the structural attribution of poverty is the most supported explanation among the respondents in post-communist countries. At the same time, both studies reported significant variation in support for structural attributions of poverty, as well as the absence of any systematic patterns between the groups of post-communist countries.

In light of these existing studies, our contributions are threefold. First, previous studies used data from the end of the 1990s. In comparison, our paper analyzes more contemporary data that covers the period between 2006 and 2010. The value of examining the newest data is justified insofar as two opposite trends related to the structural attribution of poverty in post-communist countries are discussed in the literature. On the one hand, as transi-

tion progresses, the support for "marketization" and hence, for non-structural attribution of poverty in post-communist countries may increase (Crompton, 2008; Habibov, 2011; Verwiebe & Wegener, 2000). On the other hand, as transition progresses, the enthusiasm for market economy efficiency and the justice of the new capitalist economic order may fade, which may lead to growing support for the structural attribution of poverty (Junisbai, 2010; Kluegel et al., 1995; Mason, Kluegel, & Khakhulina, 2000).

Second, the previous studies predominantly covered the post-communist countries of Eastern Europe. In sharp contrast, post-communist countries outside of Eastern Europe, namely, those in Central Asia, the Caucasus, and the majority of the Balkans, were excluded. This unfortunate exclusion can be partly explained through the lack of reliable data about poverty attribution in the omitted regions (Habibov & Fan, 2007). However, this omission is very unfortunate since, in contrast to the more developed post-communist countries of Eastern Europe, the increases in poverty and income inequality in Central Asia, the Caucasus, and the Balkans were more profound and prolonged (Milanovic & Ersado, 2012).

Third, previous studies emphasized the differences between individual-level and country-level characteristics that were used to explain attributions of poverty. No previous study, as far as we know, has explored the effects of the interactions between individual- and country-level characteristics. However, such interactions are very plausible, cannot be completely ruled out, and hence should be explored (Lepianka et al., 2010). Examining the interactions between individual- and country-level characteristics allows us to find out if the influence of individual-level characteristics on the structural attribution of poverty is different at different values of the country-level variables.

Theoretical Framework: Characteristics Explaining Support for Structural Attribution of Poverty

In this section we discuss the characteristics that may potentially be important in explaining support for structural poverty attribution the post-communist context. At the individual level, we highlight the potential significance of justice norms, the dominant ideology, and experience with poverty in explaining

support for structural attribution of poverty. At the country level, we underscore the potential relevance of economic performance and welfare state outcomes in explaining support for structural attribution of poverty. We also emphasize the conceivable importance of characteristics that have received relatively little attention in the extant literature—the interaction between individual- and country-level characteristics. After discussing each of the characteristics individually, we develop specific hypotheses regarding the relationship between the discussed characteristic and support for structural attribution of poverty.

Individual-level characteristics

The justice hypothesis postulates that when people are asked about their attributions of poverty, they draw upon their beliefs about justice, and norms of equity and equality (Lee, Hinze Jones, & Lewis, 1990; Lewin-Epstein, Kaplan, & Levanon, 2003). According to the equity norm, the positions people hold in society are determined by merit, for instance, investments in education or accomplishments. Individuals who subscribe to this view perceive society to be just, and are more likely to rationalize the existing inequality. Thus, we hypothesize that the more people cherish equity, the less likely they are to be supportive of structural attribution of poverty. In contrast, according to the equality norm, everybody belonging to a particular social aggregate, such as a country-state, should be able to live according to the prevailing standards, regardless of their contributions. Stronger adherence to this principle is associated with increased support for the structural attribution of poverty. Consequently, we hypothesize that the more likely people are to value equality, the more likely they will be supportive of the structural attribution of poverty. These discussions lead to two hypotheses as follows:

H1: Individuals who adhere to the equality norm are more likely to be supportive of the structural attribution of poverty.

H2: Individuals who adhere to the equity norm are less likely to be supportive of the structural attribution of poverty.

Dominant ideology involves an established system of beliefs that underpin an individuals' attribution of social problems, including poverty (Lee et al., 1990). It is imposed through socialization, the family, school, the media, and cultural and religious institutions. The current dominant ideology in transitional countries is the belief in the economic effectiveness of the capitalist market economy, which eliminates state and bureaucratic restrictions so that people can earn as much as they wish (Kreidl, 2000). Previous literature has indicated that support for a dominant ideology of an unrestricted market economy without state intervention could be a key predictor of an individualistic attribution to poverty, and hence would involve the rejection of a structural attribution (Kreidl, 1998; Habibov, 2013). Similarly, the endorsement of work ethic values, which suggest that hard work and self-discipline are the foundation of life-achievement, could also be associated with an individualistic attribution, and therefore a rejection of a structural attribution (Lepianka et al., 2010). The above discussion yields the following two hypotheses:

> H3: Individuals who support an unrestricted market economy are less likely to be supportive of the structural attribution of poverty.

> H4: Individuals who support work ethic values are less likely to be supportive of the structural attribution of poverty.

The poverty hypothesis postulates that poverty attribution is explained by personal experiences of poverty. As such, those who have experienced the disadvantages of poverty are more likely to view their situation as having stemmed from structural characteristics, while those who have not experienced poverty tend to support individualistic or fatalistic explanations (Habibov, 2011; Kreidl, 2000; Niemelä 2008; Saunders, 2002). Consequently, we hypothesize:

> H5: Individuals who have experienced poverty are more likely to be supportive of the structural attribution of poverty.

Country-level characteristics

The economic performance hypothesis emphasizes the role of macroeconomic conditions in shaping poverty attribution (Burgoyne, Routh, & Sidorenko-Stephenson, 1999; Gallie & Paugam, 2002). This hypothesis posits that higher levels of economic performance are associated with lower support for structural attribution of poverty. At the same time, more recent studies have indicated more nuanced findings by distinguishing between long-term and short-term economic performance (Blekesaune, 2007; Blekesaune & Quadagno, 2003; Lepianka et al., 2010; Pfeifer, 2009). Short-term economic performance, reflected, for instance, by a lower annual rate of GDP growth, is typically associated with higher unemployment and general economic insecurity, and hence increased support for external, structural attribution of poverty, while long-term economic performance, as reflected, for example, by GDP per capita, appears not to have the same immediate effect, and therefore does not have a significant effect on the structural attribution of poverty. The discussion above suggests two hypotheses:

> H6: Higher levels of short-term economic performance will be associated with less support for the structural attribution of poverty.

> H7: Higher levels of long-term economic performance will not be significantly associated with the structural attribution of poverty.

The poverty rate hypothesis theorizes that the differences in welfare outcomes across countries, most notably country poverty rates, are directly linked to differences in poverty attributions (Burgoyne et al., 1999). This hypothesis suggests that worse welfare state outcomes, in the form of higher rates of poverty, will increase the exposure of the non-poor to the existence of poverty through both formal and informal contact with the poor. Consequently, it is believed that there will be an increased tendency to explain poverty through structural characteristics. This hypothesis, however, is not entirely supported by empirical studies. After studying 15 countries, van Oorschot and Hal-

man (2000) reported the lack of a strong relationship between welfare state outcomes and perceptions of poverty. According to the authors, the reason for such disconnection is that welfare policies and institutions are not necessarily shaped by public attributions of poverty. Therefore, our next hypothesis is:

> H8: Country poverty rates have no association with the level of support for the structural attribution of poverty.

Interaction between individual-level characteristics and economic performance

It is plausible to expect that peoples' adherence to equality, equity, the market economy, work ethics, and poverty experience is influenced by the short-term economic performance of the country in which they reside. During periods of strong economic performance, it is much easier to focus on problems with individuals when thinking about the roots of poverty. This suggests that during times of economic prosperity, it is easier to blame the poor for their poverty and more difficult to blame poverty for structural factors. Hence, the perceived linkage between equity, the market economy, work ethic values, poverty experience and the structural attribution of poverty will likely be reinforced during times when the annual rate of GDP growth is higher. The opposite effect is plausible for adherence for equality. When the economy is expanding, the perceived linkage between adherence for equality norm, and the structural attribution of poverty will likely be reduced, since it is more difficult to attribute poverty to structural causes when the economy in on the rise. Assessing the effects of the interactions between individual-level variables and short-term economic performance greatly expands our understanding of the inter-relationships between theories at different levels, and allows for the testing of more hypotheses. In our case, the presence of a significant interaction term variable will indicate that the effect of individual-level variables on the outcome variable is different at different values for the levels of short-term economic performance. This discussion suggests the last two hypotheses:

H9: The correlation of support for equality with the structural attribution of poverty will become weaker when short-term economic performance improves.

H10: The correlation of support for equity, market economy, work ethics, as well as poverty experience with the structural attribution of poverty will become stronger when short-term economic performance improves.

Method

Data

We use the first and second wave of the Life-In-Transition survey (LITS), which was conducted by the European Bank of Reconstruction and Development (EBRD) in cooperation with the World Bank in 2006 and 2010 in twenty-five post-communist countries in three regions. The Commonwealth of Independent States encompasses 9 countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, and Ukraine. Eastern Europe encompasses 8 countries: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia, and Southern Europe encompasses 7 countries: Albania, Bulgaria, Croatia, Macedonia, Montenegro, Romania, and Serbia.

The LITS is multi-topic cross-sectional survey that is aimed at collecting information about socio-demographics, values, beliefs, as well as attribution of poverty. In each of the participating countries, approximately 1,000 participants were selected to be interviewed through a multistage sampling strategy. In the first stage, primary-sampling units (PSUs) were selected from a list supplied by each of the countries' statistical authorities. The number of the PSUs varied from 50 to 70 depending on the population size and population density in the country. The PSUs were selected for surveying through the use of the probability-proportional-to-size technique. In the second stage, households in the PSUs were selected for surveying through the random walk technique. Approximately 20 households were selected in each PSU. Finally, in each household, one respondent who was older than 17 was selected using a random order number for a face-to-face interview with a professional interviewer.

The original version of the questionnaire was developed in English, and then translated into the countries' respective languages by professional interpreters. The translation was checked in each of the participating countries by local teams of interviewers, and their feedback was incorporated back into the questionnaire. The feedback received from the pretest pilot surveys was also incorporated into the questionnaire. Finally, the adjusted version of the questionnaire was used for the pilot that was conducted in each participating country by local interviewer teams. Feedback from these pilot studies resulted in the final versions of the questionnaire (Ipsos MORI, 2011; Synovate, 2006).

The advantage of the LITS is that it provides fully standardized data for 24 post-communist countries over the span of five years. Due to its high quality and over-time comparability, LITS data has already been used in policy analysis within post-communist countries (Habibov & Afandi, 2015).

Operationalization of outcome and explanatory variables

Outcome variable. This study focuses on explaining support for the structural attribution of poverty. Such support is measured by a dummy variable that takes a 1 if the respondent reports that the main reason that some people are in poverty today is "because of injustice in our society." The dummy takes value of 0 if the respondent provides an alternative attribution of poverty, namely, people are poor because they have been unlucky, lazy, lack willpower, or because poverty is an inevitable part of modern life.

The *justice norms.* Adherence to the norm of equality is measured by a strong agreement with the statement, "the gap between poor and rich should be reduced." In turn, adherence to the norm of equity is indicated by the respondent's agreement with the statement that "intelligence and skills are the most important factors for success in life."

Dominant ideology. Ideology is controlled for by a dummy indicating that the respondent prefers an unrestricted market economy without any state intervention to any other form of economic system. Work ethic values are controlled for by a dummy variable indicating that the respondent agrees that "effort and hard work are the most important factors to succeed in life."

Poverty is measured by the response to the question "Please imagine a ten-step ladder where on the bottom, the first step, stand the poorest 10% people in our country, and on the highest step, the tenth, stand the richest 10% of people in our country. On which step of the ten is your household today?" In other words, the lower values on the ladder denote relatively poorer individuals. In contrast, the higher values on the ladder denote relatively wealthier individuals.

Economic Performance is measured by GDP per capita in constant USD, adjusted for by purchasing power parity, and as an annual rate of GDP growth. We lagged the economic performance variable by one year prior to the wave of the survey to address temporality. Both indices are from the World Development Indicators database (World Bank, 2017).

Poverty rate is measured by the proportion of people living under the poverty line, which is taken from the World Development Indicators database (World Bank, 2017).

Interaction terms. Finally, we create the interaction terms between justice, dominant ideology, poverty experience, and poverty rate at the individual-level and annual rate of GDP growth at the country-level.

Summary statistics for the outcomes, explanatory variables and the sources of data are reported in Appendix 1.

Covariates

To control for possible spurious correlation, we include individual and household covariates, specifically, age, gender, and education of the respondent, as well as number of children in their household. To control for possible unobserved characteristics that may change with time, we include a dummy for 2010.

Analytic strategy

Since the outcome variable is binary, we use a two-level logistic regression that accounts for the hierarchical structure of our data set, which is made up of individuals (level 1) nested within countries (level 2). Theoretically, it is possible to use a three-level logistic regression to account for three levels, namely, the individual, the PSU, and the country. However, the size

and the meaning of the PSU might be different across countries, and across the waves of the LITS. Consequently, we choose to estimate two-level logistic regression.

In total, we analyzed 30,703 individuals nested in 24 countries. Fitting a two-level logistic regression allows us to report two important parameters: fixed and random effects (Rabe-Hesketh & Skrondal, 2008). Fixed effects, in the form of regression coefficients, indicate the overall relationship between individual-level and observed country-level explanatory variables with outcome variable while controlling for covariates. Fixed effects indicate how much variation in support for a structural attribution of poverty originate from individual-level and observed country-level explanatory variables.

Random effects contain a variance component for level 2 (between countries). Variance components are used to disaggregate the total variance into specific variance, which is attributable to the country-level by computing the Intraclass Correlation Coefficient (the ICC). The ICC indicates the percentage of variation in the support for structural attribution of poverty that cannot be captured by the observed country-level characteristics, and which hence belong to unobserved country-level characteristics (Rabe-Hesketh & Skrondal, 2008). A significant value of the ICC signals that the significant share of variation in the support for structural attribution of poverty is accounted for by unobserved country-level characteristics. The value of the ICC varies between 0 and 1. The higher the value of the ICC, the higher the proportion of the total variance in structural attribution of poverty originates in unobserved country-level characteristics.

Our analytic strategy is based on the estimation of four two-level logistic models. The first estimated model is empty without any explanatory variable. It includes covariates only. The purpose of Model 1 is to gauge the effects of unobserved variation at the country level in the absence of explanatory variables. This model serves as a benchmark for the size of unobserved country-level effects in all subsequent models. Model 2 expands the previous model by adding all individual-level explanatory variables. The purpose of this model is to quantify the simultaneous effects of individual-level explanatory variables on structural attribution of poverty. In contrast, Model 3

is comprised of both individual- and country-level explanatory variables, as well as covariates. This model is designed to reveal how, and to what extent changes in structural attribution of poverty can be explained by individual- and country-level characteristics taken together. Finally, Model 4 is comprised of individual- and country-level explanatory variables together with interaction terms and covariates. This model serves to estimate the combined effects of all variables at all levels on structural attribution of poverty. The STATA 14 software package was used to estimate all models.

Table 1. Support for the structural attribution of poverty (%)

	2006	2010
Commonwealth of Independent States		
Armenia	60.50	53.95
Azerbaijan	55.80	51.68
Georgia	45.90	38.55
Kazakhstan	38.64	40.58
Kyrgyzstan	37.00	43.46
Moldova	51.70	50.81
Russia	54.40	58.30
Tajikistan	23.10	29.14
Ukraine	57.33	65.60
Eastern Europe		
Czech Republic	23.82	34.92
Estonia	26.20	40.83
Hungary	54.81	59.83
Latvia	44.00	60.91
Lithuania	38.80	59.62
Poland	47.30	35.64
Serbia	64.45	70.18
Slovakia	31.57	41.96
Southern Europe		
Albania	46.22	48.39
Bulgaria	47.35	39.96
Croatia	59.07	71.55
Macedonia	66.10	64.24
Montenegro	60.93	48.85
Romania	37.34	48.06
Slovenia	36.84	58.08

Results

Descriptive analysis

The descriptive information regarding support for structural attribution of poverty is reported in Table 1. A visual observation of cross-tabulated responses demonstrates that out of the 24 post-communist countries under investigation, the support for structural attribution increased over time from 2006 to 2010 in 16 countries. In comparison, the support for structural attribution reduced over time only in 8 countries, namely, Armenia, Azerbaijan, Georgia, and Moldova in Commonwealth of Independent States, Poland in Eastern Europe, as well as Macedonia, Montenegro, and Bulgaria in Southern Europe. Nevertheless, even in those countries where support for the structural attribution went down inter-temporally, the structural attribution remained as the explanation supported by more than half of respondents in 4 countries, specifically, Armenia, Azerbaijan, Macedonia, and Moldova. Overall, in 2010, the structural attribution of poverty was supported by more than half of respondents in 12 countries.

Explanatory analysis

The results of two-level logistic regression models are reported in Table 2 in the order in which they were estimated. For each model in Table 2, a Likelihood-Ratio (LR) test was conducted to compare the estimated two-level logistic regressions with ordinary binomial logistic regressions that do not take the hierarchical nature of the data into account. The results of the LR test are significant for each model. Such results signal that the two-level regressions that we estimated should be preferred over ordinary logistic regressions.

Model 1 includes covariates only to gauge the effects of unobserved variation in structural attribution of poverty that originates at the country-level in the absence explanatory variables, and serves as benchmark for other models. As shown in the random effect section of the model, the ICC is approximately 0.07, indicating that about 7 percent of total variation in support

Table 2. Two-level logistic regression models for the support of the structural attribution of poverty

	Model 1	Model 2	Model 3	Model 4
Fixed effects				
Adherence to equality norm		0.17***	0.17***	0.18***
		(0.02)	(0.02)	(0.02)
Adherence to equity norm		-0.44***	-0.43***	-0.45***
		(0.03)	(0.03)	(0.03)
Unrestricted market economy		-0.14***	-0.15***	-0.15***
		(0.02)	(0.02)	(0.02)
Work ethic value		-0.47***	-0.47***	-0.49***
		(0.03)	(0.03)	(0.03)
Poverty ladder		-0.08***	-0.08***	-0.09***
		(0.01)	(0.01)	(0.01)
GDP per capita			-0.00	-0.00
			(0.00)	(0.00)
Annual rate of GDP growth			-0.02***	-0.05***
			(0.00)	(0.01)
Poverty rate			-0.01	-0.01
			(0.01)	(0.01)
Adherence to equality norm × annual rate of GDP growth				-0.01***
				(0.00)
Adherence to equity norm × annual rate of GDP growth				0.01***
				(0.00)
Unrestricted market economy × annual rate of GDP growth				0.01**
				(0.00)
Work ethic value × annual rate of GDP growth				0.02***
				(0.00)
Poverty ladder × annual rate of GDP growth				0.00***
				(0.00)
Random effects				
Level-1 variance	1.00	1.00	1.00	1.00
Level-2 variance	0.23	0.19	0.16	0.16
	(0.07)	(0.06)	(0.05)	(0.05)
Intraclass correlation coefficient (ICC)	0.07***	0.06***	0.05***	0.05***
	(0.02)	(0.02)	(0.01)	(0.01)
Number of countries	24	24	24	24
Number of individuals	37073	37073	37073	37073
Likelihood Ratio test	1696.79***	1260.96***	824.18***	853.30***

Note: All models including empty model are adjusted for individual age, gender, education of the respondent, number of children in a household, and a dummy for 2010.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

for structural attribution of poverty originates in unobservable country-level characteristics. Although this represents a relatively small percentage of the total variance, it is statistically significant.

All individual-level explanatory variables are added in Model 2. As shown in the fixed effect section of the model, the results of Model 2 provide strong support for hypotheses 1 to 5. Consistent with hypotheses H1 and H2, adherence to the equality norm is positively associated with the structural attribution of poverty, while adherence to the equity norm is negatively associated with the structural attribution of poverty. In line with hypotheses H3 and H4, preference for an unrestricted market

economy and work ethic values are associated with weaker support for the structural attribution of poverty. As suggested by hypothesis H5, individuals who had experienced poverty and located themselves at the bottom of the poverty ladder were more likely to be supportive of the structural attribution of poverty. In contrast, wealthier individuals who located themselves at the top of the ladder were less likely to agree with the structural attribution. As shown in the random effects part of the model, inclusion of individual-level explanatory variables reduced the ICC from 0.06 to 0.07. Such an ICC suggests that only about 6 percent of total variation in support for the structural attribution of poverty originates in unobservable country-level characteristics.

A set of country-level variables were added in Model 3. As observed in the fixed effects part of the model, some of country-level variables (but not all) are associated with adhering to the structural attribution of poverty. As shown, higher levels of short-term economic performance in the form of the annual rate of GDP growth is associated with lower support for the structural attribution. This result confirms hypothesis H6, which suggests that support for the structural attribution of poverty is reduced during times of economic prosperity. In contrast, the effects of long-term economic performance in the form of GDP per capita are not found to be statistically significant. This result confirms hypothesis H7, which suggests that long-term economic performance is not associated with the structural attribution. Similarly, the results of Model 3 demonstrate that we can confirm H8, which suggests that country poverty rates are not associated with support for the structural attribution.

Overall, the results of Model 3 indicate that adding country-level variables change neither the direction of the effect nor the significance of individual-level variables. With respect to the random effects part of the model, the inclusion of country-level variables further reduced to 0.05, indicating that approximately 5 percent of total variation in support for the structural attribution of poverty originates in unobservable country-level characteristics.

Finally, Model 4 is comprised of individual- and country-level explanatory variables, together with interaction terms and controls, in order to estimate their combined effects. In the

fixed effect part of the model, the interaction term "Support for equality norm × annual rate of GDP growth" is significant and negative, indicating that support for the equality norm becomes less relevant for the structural attribution of poverty in times of economic growth. Such results lend full support to hypothesis H9. Equally, the results of Model 4 lend full support to hypothesis H10. All interaction term variables that are associated with this hypothesis are strongly linked to support for the structural attribution. In particular, the interaction terms between the individual-level variables of support for the equity norm, unrestricted market economy, work ethics values, and country poverty rates, with the annual rate of GDP growth, are significant and positive. This means that the estimated effects of support for the equity norm, preference for an unrestricted market economy, work ethics values, and poverty are conditioned by the level of economic growth within the country. As the economy improves and GDP growth accelerates, the effect of support for the equity norm, an unrestricted market economy, work ethics values, and poverty become less relevant to the structural attribution. It must also be highlighted that adding interaction term variables in Model 4, as compared with Model 3, did not change the direction of the effect and the significance of other explanatory variables. Since the interaction term variables in Model 4 were created from variables that had already been included in the analysis of Model 3, the ICC in Model 4 remains the same as that in Model 3.

Limitations

This study is not without limitations. First, we used a repeated cross-sectional survey with two waves. Since our data are not true panel data, our results are correlational in nature. Hence, we do not claim causality. Second, we were not able to test several hypotheses that could potentially have been important to explaining the structural attribution of poverty. For instance, it is possible that both the amount of welfare expenditures made and unemployment levels may have an effect on support for the structural attribution of poverty. However, such country-level information is typically not available for many transitional countries for all the years under investigation. This

is particularly true for the Balkans, the Caucasus, and the Central Asia. However, the effects of these omitted characteristics are likely to be captured by other explanatory characteristics that have been included in our analysis. Thus, the amount of welfare expenditures is likely to be captured by GDP per capita, while the unemployment rate is likely to be captured by the annual rate of GDP growth.

Third, we cannot examine the effects of several potentially important variables, for instance, expected change in income for the next four years and perceived changes in income compared to the situation four years ago, since they appeared only in the 2010 wave of the survey. Likewise, we could not test hypotheses related to differences in cultural factors at the country-level, in particular, variation in political culture. The extant literature lacks information and indicators that could be used to gauge differences in political culture in post-communist countries. In fairness, as suggested by discussion of the Intraclass Correlation Coefficient (the ICC), a rather small percentage in variation in support for structural attribution of poverty originates in unobservable country-level characteristics such as political culture, welfare expenditures, and unemployment rate. Recall that the ICC indicates the percentage of variation in the support for structural attribution of poverty that cannot be captured by the observed country-level characteristics, and which hence belong to unobserved country-level characteristics. In our analysis, the ICC is approximately 5-7 percent, indicating that only about 5-7 percent of total variation in support for structural attribution of poverty originates in unobservable country-level characteristics such as political culture, welfare expenditures, and unemployment rate.

Conclusion

This study focuses on the analysis of structural attribution of poverty in 24 post-communist countries for the period from 2006 to 2010. On the one hand, the results of cross-tabulation suggest that, in 2010, the structural attribution of poverty was supported by the majority of respondents in 12 countries. We observed that support for the structural attribution decreased from 2006 to 2010 in 8 countries. In contrast, support for the

structural attribution of poverty increased for the same period of time in 16 countries. These findings suggest that notwithstanding the dominant post-communist ideology that encourages individualistic and fatalistic explanations of poverty, a significant proportion of the population did not agree with this ideology and chose to support the structural attribution of poverty. The policy implication for this finding is that there exists a significant potential for government interventions aimed at poverty and inequality reduction.

At the same time, our analysis shows a lack of a systematic pattern of difference between countries, or groups of countries, with respect to their preference for the structural attribution to poverty. This finding is in line with van Oorschot and Halman (2000) and Lepianka et al. (2010) who also reported considerable difference in support for structural attribution of poverty across post-communist countries. One explanation for such differences is that even through post-communist countries began at relatively similar levels of socio-economic development and models of social welfare, the variations in terms of their timing, speed, and their success in transitional transformation had considerable influence on variation in poverty attributions across post-communist countries (Habibov 2011; Verwiebe & Wegener, 2000). Another explanation is that as transition progressed, poverty became more diffused, and the country-specific groups of "losers" and "winners" developed strikingly different perspectives on the causes of the poverty that had emerged (Habibov & Fan, 2007; Milanovic & Ersado, 2012).

On the other hand, although the level of support for the structural attribution of poverty varies between post-communist countries, the direction of the individual-level and country-level effects of the structural attribution of poverty are consistent with the expectations outlined in the proposed theoretical framework. Our findings show that the individual-level variables play an important role in explaining the structural attribution of poverty. Adherence to the equity norm, belief in an unrestricted market economy, and work ethics values are all significant in hindering the structural attribution. In contrast, adherence to the equality norm and personal experiences of poverty significantly buttress the structural attribution. It is noteworthy that the overall contributions of all individual-level

characteristics taken together appear to be stronger than those of the country-level in terms of explaining structural attribution. In other words, after controlling for individual-level variables, the country-level variables do not contribute much towards explaining support for the structural attribution of poverty.

Among country-level variables, GDP per capita does not have a significant effect on the structural attribution. However, we found that GDP growth significantly weakens the structural attribution. This finding points out that short-term economic performance, as reflected through the annual rate of GDP growth, is more important than the overall long-term level of economic performance indicated by GDP per capita. Likewise, country poverty rates are shown not to be relevant to the structural attribution. Overall, the finding that individual-level variables are relatively more important in explaining poverty attributions is in line with previous studies conducted by Kallio and Niemelä (2014) and Lepianka et al. (2010).

Finally, we demonstrated that the influence of individual-level characteristics explaining support for the structural attribution of poverty are significantly different within the context of the higher levels and lower levels of short-term economic performance. Our findings suggest that the effects of support for equity and equality norms, unrestricted market economy, work ethics values, and poverty become less relevant to structural attribution when a country experiences relatively higher levels of the annual rate of economic growth. This is a characteristic that has not yet been examined in other studies. As such, most of the existing studies compare and contrast differences in the effects of individual- and country-level characteristics explaining poverty attributions. Our results, however, show that individual and country characteristics are intertwined.

Appendix 1. Summary statistics

Variables	Description	Percentage	Mean	Standard deviation	Source
Outcomes					
Support for the structural attribution of poverty	Binary variable. 1 if respondent supports the structural attribution of poverty, 0 if otherwise.	48.23%			LITS 2006, LITS 2010
Individual-level variables					
Adherence to equality norm	Binary variable. 1 if respondent supports equality norm, 0 if otherwise.	40.75%			LITS 2006, LITS 2010
Adherence to equity norm	Binary variable. 1 if respondent supports equity norm, 0 if otherwise.	30.16%			LITS 2006, LITS 2010
Unrestricted market economy	Binary variable. 1 if respondent prefers unrestricted market economy without state intervention, 0 if otherwise.	39.71%			LITS 2006, LITS 2010
Work ethic values	Binary variable. 1 if respondent supports work ethic values, 0 if otherwise.	39.28%			LITS 2006, LITS 2010
Poverty ladder	Continuous variable. Self-report of household wealth level. 1 stands for the poorest 10% of people in our country; 10 stands for the richest 10% of people in our country		4.29	1.69	LITS 2006, LITS 2010
Country-level variables					
GDP per capita	Continuous variable. GDP per capita in constant USD adjusted for by purchasing power parity		8087.66	5707.58	World Development Indicators
Annual rate of GDP growth	Continuous variable. Annual rate of GDP growth in each country		1.23	8.70	World Development Indicators
Poverty rate (%)	Continuous variable. Poverty headcount ratio at $3.90 a day in each country		2.26	3.84	World Development Indicators
Interaction variables					
Adherence to equality norm × annual rate of GDP growth	Continuous variable. Interaction term of adherence to equality norm and annual rate of GDP growth		0.69	5.85	LITS 2006, LITS 2010, and World Development Indicators
Adherence to equity norm × annual rate of GDP growth	Continuous variable. Interaction term of adherence to equity norm and annual rate of GDP growth		0.64	5.35	LITS 2006, LITS 2010, and World Development Indicators
Unrestricted market economy × annual rate of GDP growth	Continuous variable. Interaction term of unrestricted market economy and annual rate of GDP growth		0.64	5.37	LITS 2006, LITS 2010, and World Development Indicators
Work ethic values × annual rate of GDP growth	Continuous variable. Interaction term of work ethic values and annual rate of GDP growth		0.31	5.04	LITS 2006, LITS 2010, and World Development Indicators
Poverty rate× annual rate of GDP growth	Continuous variable. Interaction term of country poverty rate and annual rate of GDP growth		4.98	37.12	LITS 2006, LITS 2010, and World Development Indicators

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