

# Differing conceptions of the causes of the economic crisis: Effects of culture, economic training, and personal impact <sup>☆</sup>



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## ABSTRACT

We report findings from a survey regarding the lay perception of the causes of the worldwide economic and financial crisis. Respondents ( $N = 2245$ ) from a variety of countries were included: China (Hong Kong), Turkey, Russia, Israel, Germany, USA, and France. We have previously documented a range of factors that affects lay understanding of the crisis. The present study expanded the database and focuses on the combination of factors that jointly predict whether the respondents view the crisis as a complex impersonal system that malfunctioned, or hold a moral/intentional view about its origins. We show that respondents from Western World countries, who were unaffected by the crisis and have economic training, interpret the crisis differently from all other respondents (i.e., those living in Turkey, Russia, or Hong Kong, and those who were personally affected by the crisis or without economic training). These differences have important implications on how policies are perceived and evaluated by the public, and should inform how they are presented to the public.

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## 1. Introduction

Recent years have seen a significant increase in the number of studies investigating how laypeople understand the economic world (Gangl, Kastlunger, Kirchler, & Voracek, 2012; Leiser & Drori, 2005; Wobker, Kenning,

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Lehmann-Waffenschmidt, & Gigerenzer, 2014). These studies were motivated not only by academic interest in how laypeople perceive economic processes, but also because it has become increasingly clear that economic activity is affected, to a substantial extent, by how people perceive it (Roos, 2008). This relationship was demonstrated for various economic phenomena, including inflation (Leiser & Drori, 2005), trust in the Central Bank (Krill, Leiser, & Spivak, 2016), and the assessment of the ability of professional economists to steer the economy toward growth and prosperity (Gärling, Kirchner, Lewis, & Van Raaij, 2009). It was also found that the public will judge unpopular policies as more necessary if those policies match its understanding (Huston, 2012); the recent economic crises are an extreme case in point (de Rosa, Bocci, & Bulgarella, 2010; Roland-Lévy, Pappalardo Boumelki, & Guillet, 2010).

We deem it important to assess the extent of cognitive adequacy between macroeconomic policies and public understanding of the nature and impact of those policies. In a more theoretical vein, it amounts to the requirement that rational expectations with respect to macroeconomic variables be grounded in some basic understanding of what those variables stand for (e.g. inflation, unemployment rate, interest rates). If this basic knowledge is lacking, the gap between macroeconomic structures and individual minds is doomed to irreconcilability. It has been widely recognized that much of the effects and the mechanism of spreading and deepening of the crisis are related to a lack of trust. Trust, in itself, is affected by understanding, and conversely, the restoration of trust thus depends on how people understand what happened in the crisis and whether they believe that lessons have been learnt (Akerlof & Shiller, 2010; O'Connor, 2012). However, it makes little sense to speak of laypeople in abstract terms. There is no reason to assume that laypeople are a homogenous group in matters of economics; rather, several layers, or sub-groups, comprise the (partial) public understanding of economics, and it is possible to identify factors that may be expected to affect how these sub-groups construe it. Specifically, attention should be paid to the extent to which people were personally affected by the crisis, to the extent of their formal education (Blendon et al., 1997; Caplan, 2006; Caplan & Miller, 2012; Leiser, Bourgeois-Gironde, & Benita, 2010; Walstad & Rebeck, 2002), and to the impact of cultural differences. Because laypeople lack a clear understanding of mechanisms in economics and finance (Atkinson & Messy, 2011; Bastounis, Leiser, & Roland-Lévy, 2004; Calvet, Campbell, & Sodini, 2009; Huston, 2012; Lusardi & Mitchell, 2007; Williams & Satchell, 2011; Wobker et al., 2014), they are susceptible to emotional and cultural influences.

To study the perceptions of laypeople, we rely on Social Representations theory (SRT) as a theoretical framework. SRT has been used in the field of economic psychology, long before the latest crisis, to assess how particular psychological mechanisms underlay the understanding of economic phenomena. A well-established finding (Gangl et al., 2012; Vergès, 1989; Vergès & Bastounis, 2001) is that people who occupy different positions in the economic world do not interpret economic phenomena in the same way. Positional aspects, such as roles and circumstances, should certainly be considered when probing the hypothesis that cognitive adequacy underlies, to some extent, plausible rational expectations of macroeconomic variables. Leiser and Drori (2005), for example, explored lay understanding of inflation. The authors reported that the concept of inflation varies between social groups, such that individuals operating as price-setters tend to associate the notion of inflation with increases in their operating costs and with lower demands, while individuals receiving a salary associate inflation most strongly with an increase in the consumer price index. Similarly, personal economic circumstances also affect how laypeople understand economics (Bennett & Kottasz, 2012; Leiser et al., 2010; Wobker et al., 2014). Country-level circumstances are relevant as well, for reasons parallel to those applying to individuals. For instance, individuals in different countries may perceive the world economy in different ways depending on historic memories, general cultural characteristics, or the position of their country in the world economy (Allen, Ng, & Leiser, 2005). Even within the confines of Western Europe, discrepancies in economic worldviews have been documented in individuals from different countries. A cross-cultural study led by revealed significant differences in the mental representation of the concept of “economic crisis” between samples of Swiss and Italian individuals. The authors suggest that these differences could stem from the perception of Italian individuals that unemployment is closely related to government economic policy and the GDP to industry, while the perception of Swiss individuals is that unemployment is related to consumption. Positional factors, such as professional roles, circumstances, and cultural affiliation, may interact with educational background. It is plausible that the lower the economic competence of individuals is, the more susceptible they will be to other influences.

Economic training is known to be an important factor that can shape how people think about economics (Berggren, Jordahl, & Stern, 2009; De Benedictis & Di Maio, 2011; Frank, Gilovich, & Regan, 1996; Kirchgässner, 2005; Lea, Tarpay, & Webley, 1987). This is of course to be expected, for at least two reasons. First, economic training in capitalist countries promotes the liberal economic agenda (Dreher, Lamla, Lein, & Somogyi, 2009; Seeber & Remmele, 2008). No less importantly, economic training leads to significant conceptual change. Laypeople do not think in terms of an economic system and they limit their grasp of the subject to particular decisions and actions, rather than to their aggregate effect. In 2010, Leiser et al. (2010) conducted a cross-national study analyzing data from USA, Germany, France, Russia, Israel, and Sub-Saharan Africa. The authors found that respondents tended to attribute the responsibility for the worldwide economic crisis to moral, cognitive, and character failures of individuals, rather than to systemic features of the economic system. The finding that relatively few respondents blamed the system is striking because the financial crisis would have been a natural opportunity to take stock of capitalism and globalization. In line with these findings, a qualitative study based on interviews with Irish laypeople regarding the 2008–2009 financial crisis found that respondents did not contemplate complex explanations for the crisis. Instead, they referred to a range of disparate ideas about society, power, morality, public spheres, and personhood. For those respondents, the crisis was not only an economic event but also a political, social, and moral one (O'Connor, 2012). Bennett and Kottasz (2012) examined the personal circumstances and characteristics affecting the public attitudes toward the UK banking industry consequent to the financial crisis. Unsurprisingly, they documented a substantial deterioration in

the favorability of public attitudes toward the banking industry following the crisis. However, their results also indicated that certain groups of respondents were much less critical than others regarding the role of the industry in the crisis. Attribution of blame to the banks was lower among high-income and politically conservative people and greater among respondents with more knowledge of the crisis and among individuals who suffered because of it.

### 1.1. Aims of the present research

Leiser et al. (2010) revealed two patterns of beliefs held by laypeople about the 2008–2009 economic crisis. In that study, a main cognitive divide in the lay assessment of alternative causes ascribed to the crisis was uncovered: on the one hand, an inclination of the public mind toward systemic, impersonal, properly causal explanations; and, on the other hand, moral, individual, intentional, and personal accounts. These two types of appraisal correspond to deeply opposing psychological attitudes and tendencies: to analyze versus to blame, and to distinguish causality from intentionality versus to assume some malevolent hand behind every negative outcome. The authors reported a negative correlation between the individual variables “low level of academic training in economics” and “being personally affected by the crisis” and the tendency to relate the crisis to causal, systemic, and impersonal factors.

In the current study, we wished to exploit all the available data to answer an important question, which was previously left unasked: what characterizes laypeople who support either of the above-mentioned views of the functioning of the global economy? We thus investigated whether certain positional factors—belonging to a Western versus an Eastern country, having an economic education or not, and being or not being personally affected by the crisis—significantly shape the way laypeople perceive the crisis. However, are such positional factors determinant? One could imagine that the economic globalization – the extent of which was made so conspicuous by the crisis – would involve a globalization of lay economic views. In the same way that goods and services are exchanged across geographical boundaries to bring about a homogenization of consumption patterns, the circulation of ideas and concepts may be expected to lead to a standardization of economic worldviews. Leading thinkers of economic globalization, however, hold nuanced views about the extension of economic processes to the domain of ideas, conceptions, and worldviews. Sen (2002) emphasizes resistance to ideological globalization, manifested in movements such as “Occupy Wall Street”, that, ironically, are also among the most globally broadcasted events. The very opposition to globalization may itself be very globalized and standardized. Stiglitz (2002) points to opposing forces of globalization; economic globalization, which spreads biased market mechanisms over various countries that lack market-friendly political superstructures, does not necessarily lead to uniform satisfaction among the newly “globalized” markets, and ideological backlash and resistance may thus be acutely stimulated.

This issue of convergence or divergence between economic processes and economic worldviews should, therefore, be addressed. One way to proceed with this new question, in relation to our previous study and dataset, is to take our conclusion about the deep cognitive divide between the ‘personal’ and the ‘systemic’ perceptions of the crisis as a fresh starting point. The question thus becomes whether the cognitive divide that we documented in the population is a universally shared feature. Considering this cognitive divide as the *explanandum*, we investigate how it relates to the different countries in which we administered our questionnaire, taken as variables. Under the hypothesis of a maximally globalized diffusion of a correlation between economic and educational status and the tendency to see the economy in systemic or personal terms, we would not expect to observe any significant difference between countries with respect to that divide. However, social-representation theory suggests that lay perceptions of the economic crisis will be influenced by the country of residence, and that a difference in perceptions will be observed, according to the position of the country with respect to the focal point of the crisis.

Accordingly, in the present study, we expanded the survey described in Leiser et al. (2010) and added three countries that are widely separated from each other, geographically and culturally. We believe that the addition of respondents from those countries can shed light on how people outside the Western World perceive the crisis and its origins.

## 2. Method

### 2.1. Procedure

Online SurveyMonkey questionnaires were distributed through publications on the Internet and completed by 2245 respondents from seven<sup>1</sup> countries worldwide: USA, France, Germany, Israel, Russia, Turkey, and China (Hong Kong). The questionnaires comprised 38 items along several identifiable dimensions (see Appendix A) and contained both open questions and close-ended questions, wherein answers were given over a 6-point Likert scale (with 1 indicating “I completely disagree” and 6 indicating “I completely agree”). Subjects were able to stop filling in the questionnaire at any time. Overall, of the respondents who started filling in the questionnaires, 68% answered all 38 questions; for analysis, we used all the answers that were provided, including those in incomplete questionnaires. Data from the USA, Israel, and France was collected mostly during June and July 2009; data from the German and Russian samples were collected in August and September 2009; data from the Turkish sample were collected between March and April 2010; data from the Hong Kong sample were collected between May and June 2010. Due to this discrepancy in data collection times, interpretations should be taken with some caution.

<sup>1</sup> We removed from the analysis data that were collected in Sub-Saharan Africa, as the sample was small and unrepresentative.

## 2.2. Demographics

The number of participants from the different countries was as follows: USA: 191, Russia: 240, Israel: 429, France: 456, Germany: 449, Turkey: 240, China (Hong Kong): 240.

The sample comprised of 48.6% female participants; of all participants, 1081 were single, 622 were married, and the others were divorcees, widows, or in another type of an inter-individual relationship. The average age was 32 years ( $SD = 12.4$  years), and the average education level was 14 years of schooling ( $SD = 5.7$  years). Regarding their training in economics, 833 respondents had no formal training; 333 respondents studied economics in high school; 431 completed a post-high school course in economics; and 274 had a college (or higher) degree in economics. Regarding occupation, 804 respondents declared to be salaried employees, 173 were self-employed, 178 were unemployed, and 614 were students. The self-reported socio-economic status was: Low – 105; low–middle – 346; middle – 994; upper–middle – 373; upper – 52. Finally, we asked about the degree to which respondents felt personally affected by the current crisis; the answers were: a great deal – 266 respondents; somewhat – 713 respondents; slightly – 561 respondents; not at all – 331 respondents.

## 3. Results

We first summarized the answers to the questionnaires on thematic grounds. For each scale, we asked several questions and ran an item-reliability analysis to identify the questions that should be retained. The indices were constructed upon independent, non-overlapping sets of questions and captured the relative weights that respondents attributed to the following dimensions, as possible explanations of the crisis. The indices are Capitalism and globalization (Cronbach's  $\alpha = 0.45$ ); Moral flaws ( $\alpha = 0.68$ ); the influence of the Media ( $\alpha = 0.85$ ); Stupidity and lack of professionalism of financial decision-makers ( $\alpha = 0.74$ ); Lack of supervision ( $\alpha = 0.63$ ); Cyclicity, i.e., the economy operates as a cycle (n.a. – single question); the inherent Complexity of the economy ( $\alpha = 0.56$ ); No intervention, i.e., a belief that it is best not to intervene and to let the crisis self-correct ( $\alpha = 0.71$ ); Economists' competence in predicting, preventing, and handling the crisis ( $\alpha = 0.7$ ); and Optimism forecast, i.e., a belief that something good may eventually come out of the crisis ( $\alpha = 0.49$ ). Details of the questionnaire and the questions that were retained for each scale are given in the [Appendix A](#).

As mentioned above, this study does not concern the index-level analysis of the answers; rather, it focuses on the broader pattern of answers and of factors that influence the perceptions of the respondents – i.e., economic education, country of residence, being personally affected by the crisis, and SES – which are all inter-correlated. The remainder of this paper is thus devoted to untangling these partially overlapping effects by using cluster analysis and data mining methodologies.

### 3.1. Cluster analysis

To identify distinctive profiles of respondents in the sample, we conducted a cluster analysis ( $K$ -means). In this method, the analysis starts with  $k$  random clusters and then moves objects between those clusters to minimize variability within clusters and to maximize variability between clusters. This method is analogous to an “ANOVA in reverse”, in the sense that the significance test in ANOVA evaluates the between-group variability against the within-group variability when computing the significance value for the hypothesis that the means in the groups are different from each other. In  $k$ -means clustering, objects (here: respondents) are moved in and out of groups (clusters) to obtain the most significant ANOVA results ([StatSoft Inc., 2013](#)). The variables on which we based our  $k$ -means analysis were the indices defined in [Leiser et al., 2010](#) (and were mentioned above). The analysis revealed two distinct clusters of respondents, which differ in the degree of agreement with our set of indices.

We ran an ANOVA on the differences between clusters for each of the variables. The difference between the clusters for all the indices  $F(1, 1503)$  were highly significant (at least  $p < .0001$ ). Overall, the mean agreement with individual statements among the respondents belonging to the first cluster was 4.16, versus 3.5 for the second cluster, indicating systematically more extreme judgments of the respondents belonging to the first cluster. Since our interest was to examine the pattern of relative emphasis in each cluster, we subtracted the mean agreement for each scale from the mean agreement for the cluster. [Fig. 1](#) summarizes the differential emphasis between the two clusters in their relation to the scales. Cluster 1 respondents tended to attribute the responsibility for the crisis to moral, cognitive, and character failures of individuals, as opposed to systemic features of the economic system. We will refer to respondents demonstrating this pattern, which is indicated by the hatched bars in [Fig. 1](#), as the *Individual* profile. The other group of respondents put less emphasis on individual foibles and we will refer to their profile, for reasons that will be further clarified in the Discussion section below, as the *Liberal* profile, but which can also be defined in a first approach both in terms of beliefs (in free market and enterprise, democracy, individual responsibility) and in terms of belonging to a society or a segment of society (with respect to SES status and education level) where these beliefs tend to prevail.

### 3.2. Cluster membership

Who are the members of these two clusters? To tease apart the variables that jointly determine belonging to one of the two profiles, we relied on Classification Tree analysis; specifically, we used Classification and Regression Trees (C&RT) as our model building method. With this method, the goal is to predict cluster membership by growing a binary tree. The tree is

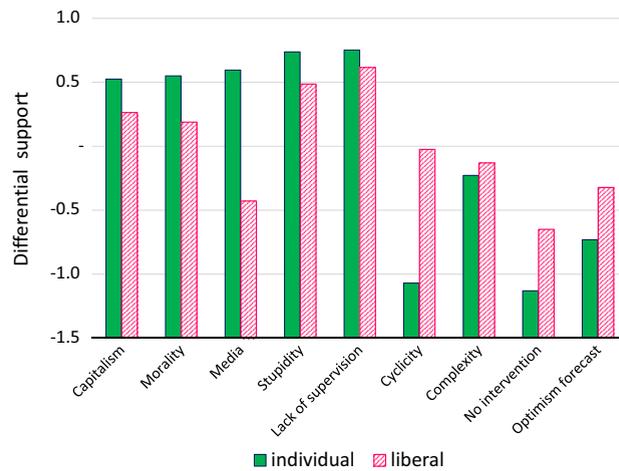


Fig. 1. Differential support profiles for the indices in the two clusters.

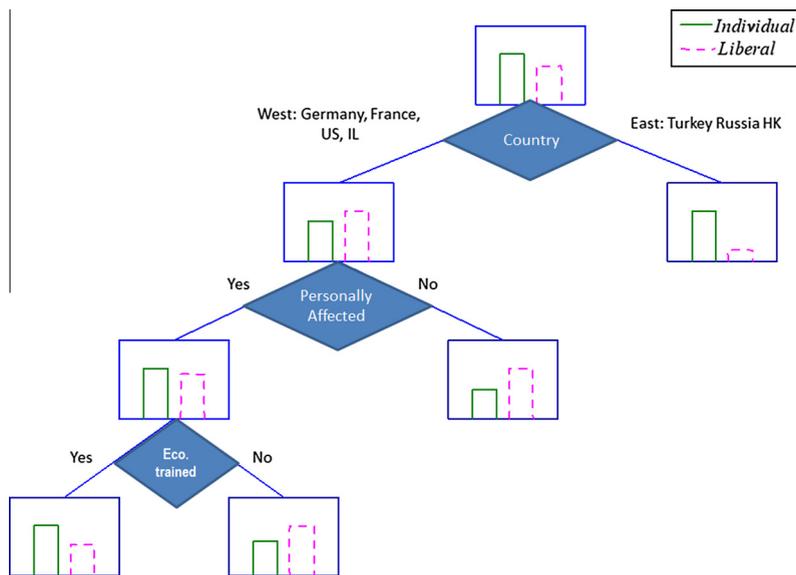


Fig. 2. CR&T Classification Tree analysis for cluster membership.

grown by comparing all possible binary splits for each predictor variable at each node, in order to identify the split that yields the greatest improvement in goodness of fit, as measured by a chi-squared test. We entered all the demographic variables that we collected into the analysis. Their relative contribution to the prediction was computed by adding up the drop in node impurity over all nodes in the tree and expressing these sums relative to the highest sum found over all predictors (i.e., the most important variable, whose importance is conventionally set as 100) (StatSoft Inc., 2013). With that measure, the relative importance of the predictor variables are as follows: Country (100), SES (90), economic training (80), being personally affected by the crisis (70), age (54), years of education (28), and gender (4). SES is not represented in the classification tree despite its high ranking in importance due to its correlations with the other predictors, namely, positively with economic training ( $r = .14, p < .001$ ) and inversely with being personally affected by the crisis ( $r = -0.16, p < .001$ ).

In brief, the members of the liberal cluster tended to live in the West, be relatively wealthy, have training in economics, and relatively unaffected by the crisis. In contrast, respondents living outside the West (whether in Russia, Turkey, or Hong Kong), and respondents possessing no economic training, tended to belong to the individual cluster (Fig. 2).

#### 4. Discussion

We aimed to determine whether distinct profiles of respondents can be uncovered and to identify the common characteristics of participants belonging to each of the two profiles. To this end, we subjected the data to cluster analysis followed by classification tree analysis. We found two distinct profiles in our sample: respondents with the Individual profile are more

critical and accusatory than respondents with the *Liberal* profile, and they blame a range of actors for their moral, cognitive, or character failings. Our results also reveal the main variables in which respondents in the two groups differ: country, being personally affected by the crisis, and economic training. While socio-economic status is also an important predictor of group-belonging, its unique contribution is small due to its high correlation with other principal predictors.

Three psychological facets can help interpret our findings: incomprehension, anger, and trust. The financial crisis revealed how incomprehensible the international finance system is for laypeople (Remmele, 2013). An essential aspect of economic understanding is the differentiation between the levels of (intentional) action and the system. Accordingly, there is multi-faceted debate as to who is responsible for the crisis: Is it a posse of irresponsible bankers, or were they following the rules of the game? Is the system to blame, or are individuals? A symptom of poor understanding of the system can be the loss of trust in the system following the crisis. Absent a systemic understanding of what had happened, the economic crisis tended to evoke a crisis of trust toward the economic system, together with feelings of unfairness, helplessness, and anger, especially for those who were affected personally. This crisis of trust has led to protest movements in direct reaction to the crisis, e.g., in Iceland (Ragnarsdóttir, Bernburg, & Ólafsdóttir, 2013). More broadly, according to Remmele (2013), it was the economic and financial crisis that has led to the broad phenomenon of the formation of “occupy” movements during the year of 2011, namely, the wave of protests that began after the crisis and continues today in various guises in Europe, in the USA, and in many other places. The impact of the crisis on the middle-class and the claim that the distribution of wealth is grossly unfair lead to a feeling of victimization and to claims that the economy is dominated by an aloof elite that cares only about itself. A recent study on the Israeli Occupy movement (Leiser & Krill, submitted for publication) suggests that the common perception of the reasons for that protest is the existence of crony capitalism and the misuse of political clout that thwarts attempts at social justice and equity. Those who protested therefore tend to hold the individual rather than the liberal view of economic phenomena. In a global perspective, a study by the Pew Research Center (2012) found that the world economic crisis eroded support for capitalism. In 11 of the 21 nations surveyed, half or fewer now agree with the statement that “people are better off in a free market economy even though some people are rich and some are poor.”

Despite a prima facie globalization of distrust due to the recent economic mishaps, one can still probe whether this distrust is uniformly spread over our samples of nations and how it is affected by our main positional factors: personal circumstances, educational background, and geographical location. Indeed, “in most countries, people’s personal economic experience shapes their view of the free market. Those who are suffering are less likely to think people are better off under capitalism than are those who are well off.” (Pew Research Center, 2012). Our analysis revealed that the “Individual” profile and its blaming attitude is especially prevalent in the non-Western countries, and, in fact, defined the first and main split in the classification tree (Fig. 2). This finding might be related to other findings regarding local tendencies to mistrust, and to yield to its more extreme form – the endorsement of conspiracy theories. We explored this possible link by examining two sources of data. First, we examined the most recent data from the World Values Survey Association (2009) (WVS) – a cross-country project that measures political and cultural values, attitudes, and perceptions in 57 countries – and, specifically, the question “can most people be trusted”. Second, we computed a simple conspiracy index (the mean score for two items, q41: “Experts could have prevented the crisis, had they wanted to”, and q52: “False reporting by big organizations and institutions is responsible for the crisis”). The origin of the proclivity to endorse conspiracy theories is emotional (i.e., the need to assign blame, hostility, and feelings of alienation) rather than cognitive, and low trust in people and institutions correlates with conspiracy belief (Swami, Chamorro-Premuzic, & Furnham, 2010; Wagner-Egger & Bangerter, 2007). The data for the particular countries in our survey are summarized in Table 1.

However, Turkey, Russia, and Hong Kong, which were grouped together as non-Western countries in Fig. 2, are not identical with respect to measures of conspiracy and mistrust. Two of these countries – Turkey and Russia – do score high on the mistrust scale. Like other post-communist transition countries, Russia has a special relation to trust, compared to other European countries (Lissowska, 2010). These transition countries went through a long period of weak horizontal social relations due to ideological paternalism and administrative control, and cooperation was limited to the circle of one’s family, friends, and colleagues. Institutions introduced during the transition protected individual entrepreneurship, at the expense of collective interests and the culture of cooperation. In her research, Lissowska (2010) finds that the citizens of post-transitional countries have low levels of civic engagement and little trust in society and in their political systems. The economic crisis resonated with this, and provoked a breakdown of trust and confidence in markets. Turkey, too, is very low on the trust dimension: 95.1 percent of Turks believe that they need to be very careful in dealing with people, the highest level of distrust among all countries surveyed in the WVS. Limited trust is a feature previously found in Muslim countries, where it is also

**Table 1**  
International comparison of mistrust tendencies.

Country	Conspiracy index	“can’t be too careful” (WVS)
FR	3.45	81.2%
IL	3.45	(no information available)
USA	4.16	60.7%
HK	4.16	58.9%
GR	4.19	63.2%
RU	4.51	73.8%
TR	4.67	95.1%

displayed in experimental games involving trust, betrayal, and punishment (Bohnet et al., 2012; Gächter, Herrmann, & Thöni, 2010). However, whereas respondents from Turkey and Russia exhibit marked mistrust, respondents from the third non-Western country examined in our study – Hong Kong (China) – do not differ from respondents from the USA or from Germany in trust or conspiratorial tendencies. We might, therefore, have expected respondents from Hong Kong to react on a par with those of the Western world, especially in light of the thorough insertion of Hong Kong in the world financial network. But Hong Kong's ethos is special, and it is neatly captured by the advertising slogan of its most famous bank, HSBC: “the world's local bank”, a dual paragon of globalization and local spirit. Indeed, more than any other bank, HSBC exemplifies the transnational nature of modern banking and finance (Cassis, 2011). However, if one considers its colonial origins as a British imperial bank, along with the ideological pressures since the handover to China in 1997, one may perceive the tension between the long-term impact of globalization and the strong countervailing local cultural and political forces. The clustering of the three non-Western countries together cannot, thus, be attributed solely to a general attitude of suspicion and distrust, and this notion corroborates our impetus to search for underlying motives of diverging views and attitudes.

One could have expected that a division between the educated and the well-off, on one side, and the less educated and economically affected, on the other side, would be found in every country and underpin the cognitive divide. The present study shows the lingering importance of geography for cognition. People not living in the Western part of the world tend to think like the less wealthy and educated in the West, independent of their training and economic status. This lead us to acknowledge and analyze in detail the prevalence of local factors in accounting for economic worldviews, sometimes possibly reinforced by underlying national ideological frames. The new analysis we propose, therefore, builds upon the previous analysis by showing that economic lay cognition is split in a more complex way than at first envisioned; it spreads differentially over a geographically, geopolitically, and ideologically divided world.

Our findings bear important consequences for understanding how policies are perceived and evaluated by different segments of the public, and should inform how they are presented. People who perceive economics as a complex system and the economic crisis as part of a cyclic pattern belong to the inner circle of economic discourse: they come from developed Western countries, were little affected by the crisis, and have a formal economic education. This is hardly a marginal group. Those people are the very ones who wield economic power and whose decisions disproportionately affect other people. People living in the Western world, who were unaffected by the crisis, and who have benefited from economic training perceive the crisis in one way. All other people (i.e., those living in Turkey, Russia, or Hong Kong, those who were personally affected by the crisis, or those who lack economic training) perceive the crises in a different way. The basic tenets of economic causality are not the same for the two groups.

The cultural-geographical divide that we document here seems to be driven by contradictory forces: on the one hand, the crisis affects the whole world; it is a globalized phenomenon and no country or individual is out of reach of its implications. Crucially, globalization, and, in particular, globalization of the crisis itself, does not entail globalization of its perception. Underlying attitudes, possibly deeply culturally entrenched, yield a more variegated and heterogeneous picture of the phenomenon that is the very symbol of globalization. Our study reveals this inherent tension between the outreach of an essentially globalized phenomenon – the economic crisis – and the limits of globalization with respect to its alleged uniformization of minds.

Over the last few decades, many researchers have contributed to a framework for predicting when individuals will take collective protest action (for a recent overview, see Van Stekelenburg & Klandermans, 2013). In addition to a perceived grievance, those conditions include feelings of efficacy – that is, feelings that the protest will promote a welcome change (Gamson, 1995) – collective identity of the protesters, and group-based emotions, in particular, anger (Shi, Hao, Saeri, & Cui, 2014; Van Stekelenburg & Klandermans, 2013; van Zomeren, 2013; van Zomeren, Saguy, & Schellhaas, 2013). This sociological literature does not examine what happens when those conditions are not met since; from their perspective, nothing happened, and there is therefore nothing to explain. Our study stresses that even when there is little or no acting out, different groups of people have different perceptions of the economic reality. These differences are such as to cause suspicious and sullen opposition regarding proposals to handle the crisis put forward by economists and political decisions-makers in the West.

## Appendix A. Questionnaire and scales

### A.1. Capitalism and globalization

Q18 – In your opinion, to what extent did the capitalistic system contribute to the crisis?

Q46 – In your opinion, to what extent is the following factor responsible for the crisis: Globalization caused the crisis, which went from a local issue to a world-wide crisis?

### A.2. Morality

Q24. – In your opinion, to what extent did Moral flaws (greed, lack of compassion, selfishness) contribute to the crisis?

Q25 – Please indicate to what extent you agree or disagree with the following statement: The current crisis comes as a punishment to all those who misbehaved in the past few years.

Q51 – In your opinion, to what extent is the following factor responsible for the crisis: The deliberate actions of vested interest?

Q53 – In your opinion, to what extent is the following factor responsible for the crisis: The greed of key economic players?

### A.3. Media

Q19. – In your opinion, to what extent did the media contribute to the crisis?

Q48 – In your opinion, to what extent is the following factor responsible for the crisis: The media and the way it presented the situation?

### A.4. Stupidity

Q20. – In your opinion, to what extent did stupidity and unprofessionalism contribute to the crisis?

Q22 – In your opinion, to what extent did herd-like behavior, everyone mindlessly behaving like the others, contribute to the crisis?

Q23 – In your opinion, to what extent did Short-sightedness – decision were made without thinking about the more distant future contribute to the crisis?

Q47 – In your opinion, to what extent is the following factor responsible for the crisis: The stupidity of the decision makers?

Q56 – In your opinion, to what extent is the following factor responsible for the crisis: The lack of professionalism of the decision makers?

### A.5. Lack of supervision

Q21 – In your opinion, to what extent did lack of regulation contribute to the crisis?

Q27 – Please indicate to what extent you agree or disagree with the following statement: Speculation and financial creativity were allowed to become too influential, and are now bringing down the whole economy.

Q49 – In your opinion, to what extent is the following factor responsible for the crisis: The irresponsible attitude of the state?

Q50 – In your opinion, to what extent is the following factor responsible for the crisis: The banks that encouraged people to take unreasonable loans?

Q52 – In your opinion, to what extent is the following factor responsible for the crisis: False reporting by big organizations and institutions?

### A.6. Cyclicity

Q26. – Please indicate to what extent you agree or disagree with the following statement: The current crisis is part of the cyclic behavior of the economy and is not unusual.

### A.7. Complexity

Q29. – Please indicate to what extent you agree or disagree with the following statement: The crisis is well understood, but has become uncontrollable.

Q30 – Please indicate to what extent you agree or disagree with the following statement: The economy is a complex system, and once certain point is reached things will get worse for a long period.

Q38 – Please mark the extent to which you agree or disagree with the statement: No one could have predicted the crisis, due to the complexity of the economy.

Q39 – Please mark the extent to which you agree or disagree with the statement: No one could have prevented the crisis, due to the complexity of the economic system.

Q54 – In your opinion, to what is the following factor responsible for the crisis: The entire economic machine that went out of control?

Q55 – In your opinion, to what extent is the following factor responsible for the crisis: The lack of understanding by the decision makers?

### A.8. No intervention

Q31 – Please indicate to what extent you agree or disagree with the following statement: The economy can handle the crisis, and external intervention is unnecessary.

Q32 – Please indicate to what extent you agree or disagree with the following statement: Governmental intervention is vital to solve the crisis.

Q33 – Please indicate to what extent you agree or disagree with the following statement: Banks should be allowed to go into bankruptcy so that they will conduct themselves more responsibly in the future.

Q34 – Please indicate to what extent you agree or disagree with the following statement: We should support banks in trouble because their fall would provoke a crisis from which all will suffer.

#### A.9. Economists

Q42. – Please mark the extent to which you agree or disagree with the statement: Economic experts understand the crisis well enough to deal with it.

Q43 – Please mark the extent to which you agree or disagree with the statement: The duration of the crisis can be estimated.

Q44 – Please mark the extent to which you agree or disagree with the statement: The evolution of the crisis is predictable.

Q45 – Please mark the extent to which you agree or disagree with the statement: It is possible for experts to fully understand the crisis.

#### A.10. Optimism forecast

Q36 – Please indicate to what extent you agree or disagree with the following statement: The economy will come out stronger from the crisis.

Q37 – Please indicate to what extent you agree or disagree with the following statement: As a result of the crisis, moral standards in business and finance will improve.

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