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RESEARCH ARTICLE

Financial Threat during the Economic Crisis: Connections with the Social Representation of the Economic Crisis and the Willingness to Act

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The 2008 economic crisis led numerous countries into economic hardship. Therefore, today, people feel financially threatened by this economic downturn. This threat can influence people's willingness to act in order to cope with the economic situation. In this paper, the social representation theory helps to understand social knowledge associated with the economic crisis. The study is organized around two main objectives: (1) to compare the social representation of the economic crisis according to people's level of financial threat, and (2) to study the mediating role of financial threat between people's economic situations and their willingness to undertake economic actions (i.e., saving, consumption) and citizen's activities (i.e., protests). French adults (N = 278) answered a free-association task based on the 'economic crisis' as the inductor, completed by financial threat, willingness to act, and a series of economic measures. First, results support the hypothesis of the existence of different social representations of the economic crisis according to the level of financial threat. Second, financial threat is also found to fully mediate the relationship between economic situation's measures and the willingness to protest.

Keywords: Social representation; Financial threat scale; Economic crisis; Action

The aim of this paper is to combine perspectives of economic psychology and social psychology in order to develop new standpoints about how representations and actions work together in an economic hardship environment.

As stated by Lassarre and Roland-Lévy (2011, p. 13), 'the epistemological field of economic psychology is at the interaction of the psychology and the economy'. In the present study, a social object, the economic crisis, was taken into account, and its representation was explored at a collective level, thanks to the social representation (SR) theory; at the individual level, the links between the financial threat and the willingness to take part in actions in order to cope with the crisis were examined.

Representations of the economic crisis and its consequences have been studied since its starting point in 2008. Social psychologists have stressed that an economic crisis can be viewed as a social object, which is part of one's life (Gangl, Kastlunger, Kirchler, & Voracek, 2012; Roland-Lévy, Pappalardo Boumelki, & Guillet, 2010). Since personal income and well-being are correlated (Kahneman & Deaton, 2010), the degradation of the financial situation, particularly in the context of an economic crisis, brings worries and preoccupations. The economic recession seriously affects people's well-being and can generate uncertainty or fear; it can also trigger economic stress (Greenglass, Marjanovic, & Fiksenbaum, 2013).

Indeed, according to the French National Institute for Statistics and Economic Studies (INSEE), economic indicators stress the increase of unemployment in France during the economic crisis; its rate was 8.1% in 2000, 8.9% in 2010 and reached 9.8% in 2013 (INSEE, 2000, 2010, 2013). Consequences of unemployment, such as worries (Freeston, Rhéaume, Letarte, Dugas, & Ladouceur, 1994), rumination (Scott & McIntosh, 1999), lack of self-efficacy (Krueger & Dickson, 1993), and its consequences in terms of financial situations create uncertainty that can be dramatic. This financial threat and associated emotions (e.g., worries) interact with the cognitive and reasoning processes (Dolan, 2002); under stressful situations, this can lead to adaptive responses and/or non-adaptive responses (Fredrickson, 2001; Greenglass, Fiksenbaum, & Burke, 1996; Maslach, 2001).

Financial Threat

Perceived ability to cope with stressful situations can lead to positive and well-adapted responses to the situation, along with positive emotions that can enhance the mobilization of 'thought–action repertoires' (Fredrickson, 2001). In contrast, when people perceive themselves as unable

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to cope with harmful situations or threats, negative and non-adaptive responses tend to develop, for example the feeling of exhaustion, the feeling of having no control, or the experience of a burnout (Maslach, 2001). In relation to coping strategies, Folkman and Lazarus (1988) stated that they depend both on personal dimensions (beliefs, hardiness, and anxiety) and on contextual dimensions (situation and social resources). The type of danger, its probability to appear, and its duration contribute to the appraisal of a stressful situation. In line with this, and along with Greenglass et al. (2013), the existence of financial threat, a variable mixing fear, uncertainty, and preoccupation about personal finances situation, was considered.

In order to measure feelings concerning uncertainty, threat, and preoccupation about personal finances, Marjanovic, Greenglass, Fiksenbaum, and Bell (2013) created the Financial Threat Scale (FTS). This scale captures the perceived level of financial threat, which represents an overall uncertainty, preoccupation, and fear regarding one's own financial situation. In case of degradation of their economic environment and/or of their personal finances, people may feel financially threatened and might perceive a lack of financial stability and security. Financial threat (measured through FTS) has been found to be related to financial situation variables, such as economic hardship or financial well-being, along with personality variables, including worries or self-efficacy (Marjanovic et al., 2013), as well as health related variables, including psychological well-being and emotional exhaustion (Marjanovic et al., 2015).

Consequently, people not only have individual feelings about an economic crisis and its consequences, but they also share information, emotions, thoughts, and facts (Moscovici, 1961); moreover, they often act according to their feelings. What lay people think and share about a particular area, such as economics, is primarily explored by social psychology by using the social representation theory (Moscovici, 1961). This theory allows to reveal a particular field of social life by stressing symbols, images, and values (Doise, 1982).

Social Representations

Defined as *ways of world making* (Moscovici, 1988), also called *lay thinking* (Moscovici, 2001), *lay concepts* (Vergès & Bastounis, 2001), or *lay understandings* (Deaux & Philogène, 2001), social representations are specific forms of knowledge (Jodelet, 2003); for non-expert people, they constitute ways of considering a social object or a situation (Rouquette, 1997). Social representations are organized as 'socio cognitive sets having specific structure and rules' (Abric, 1994a, p. 8). Via the process of anchoring, social representations first proceed, at the cognitive level, by selecting and organizing information in order to obtain a well-organized and stable structure; and second, at the social level, they are determined by collective memory, cultural values, and social norms that furnish systems of interpretation (Vergès & Bastounis, 2001). The anchoring process of social representations refers to its fixation in the social reality. According to Jodelet (1989), the insertion of the new representation is mold with the frame of reference composed of other related representations, ideologies, values, attitudes, and behavior. The anchoring process helps to interpret the unknown: it leads to making an unknown and unfamiliar object becoming familiar. Doise (1990) stated that it is essential to take into consideration the anchoring process while studying social representations. In addition, via the objectification process, social representations allow various social groups to transform the world into something familiar to them. Rather than expressing the objective truth, or being based on 'pieces of information', social representations carry practical values and an explanatory meaning, which fit within the group's norms, values, and beliefs. Consequently, social representations produce specific modes of reasoning and are based on their own internal logic. Individuals share social representations when they find themselves in specific social contexts, and especially when they feel deeply involved in it (Flament & Rouquette, 2003; Guimelli, 2002).

Additionally, lay knowledge about economic concerns, is spread across social groups and communities and becomes an element of the economic life (Moscovici, 2001). For example, concerning the economic crisis, Ernst-Vintila, Delouvée, and Rouquette (2010) have found that the social representation of the financial crisis is different between financial managers and lay people. Moreover, social representations have a practical goal (Jodelet, 2003); they can determine behavior (Abric, 1994b). However, this link is not necessarily causal (Roland-Lévy, 1998, 2001); new practices can also contribute to modifying a social representation by activating cognitive schemes, which then can orient behavior and actions (Guimelli, 1989).

According to the central core theory (Abric, 1987), a social representation is made up of two kinds of systems. The central system is shared by the members of a group and cannot easily change; it furnishes coherence and the identity of the entire social representation. The peripheral system is located around the central system and composed of peripheral zones. The peripheral system is dynamic; it provides space for the expression of both individual and social differences.

This paradigm has demonstrated its relevance for the study of economic aspects of everyday lives; it allows, thanks to its strong practical dimension, the establishing of links between common sense of economics and behavior (Abric, 1994c). This explains why perspectives from social psychology, through the social representation theory, are particularly suitable to study the economic slowdown. Our analysis will take into account financial threat as part of the frame of references of the social representation of the economic crisis. Moreover, as defined by the transactional model of stress (Lazarus & Folkman, 1984) and the 'thought–action repertoires' (Fredrickson, 2001), threat may lead to coping actions.

Types of Actions when Facing a Financial Threat

As reported by the 'thought–action repertoires' (Fredrickson, 2001), perception of an economic threat can increase stress and consequently increase certain types of actions

in order to cope with the situation. Among these actions, some can be social, such as taking part in a protest, while others can be economic, such as increasing consumption or savings.

Economic and political situations can bring people to protest. Referring to the Arab Spring as the starting point of large demonstrations, the *Times* identified, in December 2011, 'the protester as the person of the year'. The *Times* stressed the fact that, since 1991, the important increase of living standards made acts of large public demonstrations as rare and irrelevant, up to the end of 2010 when public demonstrations begun to be tropes of our times. Large protests are compared with protests in 1989 and in the spring of 1968, but the journalist points out that present protests are unlike any previous ones. After the Arab Spring, important protests rose in Spain, Greece, London, New York's financial district (e.g., Occupy Wall Street movement, *Indignados*), with millions of people gathering together to request 'social justice'. 'All over the world, the protesters of 2011 share a belief that their countries' political systems and economies have grown dysfunctional and corrupt' (Andersen, 2011). More specifically, in Europe, the Blockupy movement was a major social protest against austerity policy which took place in Frankfurt between 2012 and 2015 (Mullis, Belina, Petzold, Pohl, & Schipper, 2016). In fact, protesters mainly questioned the role of the consequences of austerity policies, such as the political choice of reducing public debt rather than increasing the employment rate (van Gent, Mamadouh, & van der Wusten, 2013). Studying social protest in Iceland, Bernburg (2015) found that economic vulnerability is a major factor in predicting individual mobilization as being part of social protest. In Greece, Rüdig and Karyotis (2014) found that, if economic and psychological indicators, such as deprivation and feelings of injustice, are still significant predictors of being part of a social protest, individual characteristics, such as biographical availability and network involvement, are even stronger predictors. Therefore, protests/demonstrations were considered in this paper as actions undertaken in order to cope with the present economic downturn.

Consumption can be defined as the process through which individuals reach utility/satisfaction by consuming goods. Saving is used, here, as the possibility of putting money aside for the future. The representation of the act of saving can be ambiguous: it 'recounts the existence of a conflict created by the need to save for the future which is parallel to the difficulties connected to saving in today's problematical economic contexts' (Minibas-Poussard, 2003, p. 7). In an economic framework, consumption and savings can be viewed as opposite elements of the same economic model. In the Neoclassical perspective, individuals allocate their income between consumption and savings according to the level of the interest rate (Béraud & Faccarello, 1992). On the contrary, in a Keynesian perspective, the increase of the consumption level depends on the marginal propensity to consume (Keynes, 1936). This opposition leads to two conceptions of economic stimulus policies: in the Neoclassical perspective the supply, through investment and savings, will be enhanced as a factor of economic growth. On the contrary in the Keynesian perspective, it is the demand and consumption which drive the economic growth. Therefore, behavior, consumption and savings, may facilitate the economic growth and can be elicited by economic policies in order to deal with an economic downturn. Central banks took unconventional monetary policies during the crisis in order to increase the money supply and then the investment and the consumption of households and firms via the decreasing of the interest rate. For example, since 2008 the Federal Reserve (FED), and since 2015 the European Central Bank (ECB) have carried out quantitative or credit-easing monetary policies. Thus, consumption and savings are considered in this paper as potential actions used in order to cope with the present economic downturn in a political economy perspective.

Goals and Hypotheses

Feelings associated with the economic crisis may be connected with both social representation and actions. The goal of this paper is to analyze (1) the relationship of financial threat with the social representation of the economic crisis among lay people, along with (2) the connection between lay people's own perception of their economic situations and their actions used to cope with the economic downturn. This approach combines social and psychological dimensions related to financial situations in an economic hardship context.

During the anchoring process, social representations are formed into a pre-existing frame of references (Jodelet, 1989). Hence, variations in the frames of references may lead to variations in terms of social representations (Doise, 1990). We assume that the financial situation is part of the frame of references of the economic crisis and, therefore, might be related to differences in terms of social representations of the economic crisis. Thus, it is expected that the level of financial threat will imply variations in the structure of the social representation of a crisis (*Hypothesis 1*). Specifically, people with a high level of financial threat will focus on the negative consequences of an economic crisis, whereas people with moderate or low financial threat will be more able to access 'thought–action repertories' (Fredrickson, 2001) that will allow them to deliver explanations about the economic crisis.

Similarly, people's financial situations along with their economic environments act as frames of references of their actions. Moreover, according to stress theories, threat and coping actions are connected. Therefore, in this study, it is stated that a financial threat is a mediator for actions in an economic hardship context. Consequently, it was hypothesized that there is a mediating effect of the FTS on the relation between the economic situations' measures (income, gravity, past financial difficulties, and future financial situation change) and intentions to carry out economic actions (savings, consumption), as well as citizen's activities (demonstrations/protests) (*Hypothesis 2*). **Figure 1** presents the hypothetical model tested in this study.

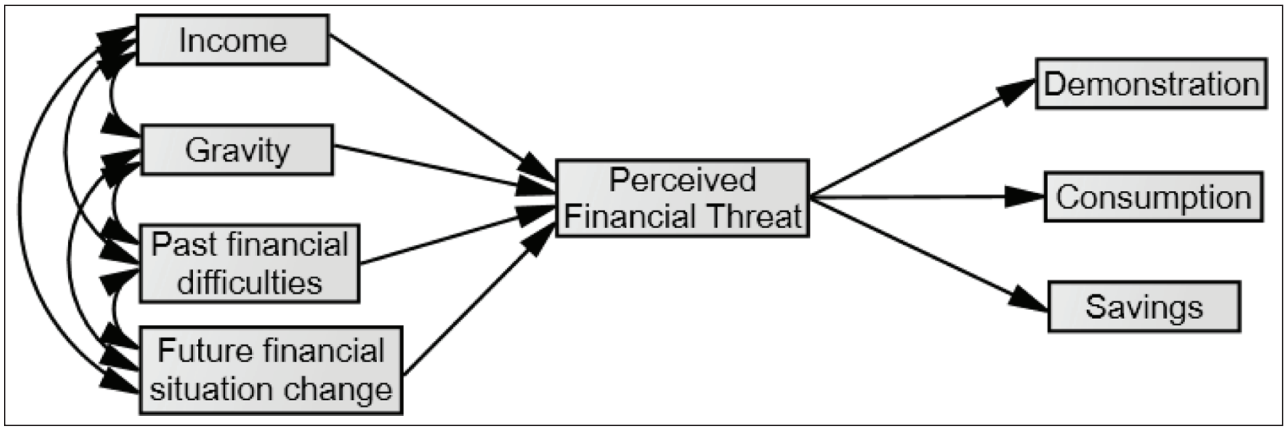

Figure 1: Hypothetical model of full mediations of income, gravity of economic situations, past financial difficulties, and expected future financial situation change as predictors of the actions demonstration, consuming and savings, mediated by the level of perceived financial threat[1].

Method

Participants

Two hundred and seventy-eight participants (278), ranging in age from 18 to 78 years (M = 38.9, SD = 15.39), all French citizens, 62% female, responded to an online questionnaire between November 2013 and January 2014. They fell into five main occupational categories: students (23.4%), workers (42.08% employed full-time and 19.06% with a part-time job), unemployed (21.94%) and retired (13.30%). The mean personal income per year was €27,261.87 (SD = 32,155.18), with a median income of €22,000 per year, which is similar to the French median annual income (according to the INSEE, in 2010, the median annual income in France was €20,100).

Measures

Social representation

Participants were asked to provide three to five words in relation to the target expression 'economic crisis' (*Please provide 3 to 5 words in response to the question 'Which are the words or expressions that come to mind when you think about the economic crisis?'*). By introducing the constraint of a limited number of words, it is possible to homogenise verbal productions across participants (Moliner, Rateau, & Cohen-Scali, 2002). For each word or expression they produced, participants had to say whether it evoked something positive, neutral, or negative in relation to the target expression 'economic crisis'. Moreover, participants had to categorize their produced words and expressions in terms of causes, consequences, or others in relation to the target term the 'economic crisis' (percentages are presented in the Appendix).

Financial threat

Participants were asked to complete the French version of the Financial Threat Scale (FTS; Kmiec, Greenglass, Katter, & Lemoine, 2016; Marjanovic et al., 2013). The FTS was designed to assess levels of fear, uncertainty, and preoccupation about the stability and security of one's finances. It assumes that, as personal financial situations deteriorate, the perception about the stability and security of one's financial resources also worsen. The financial threat scale consists of six items ranging from 1 (*not at all*) to 5 (*extremely/a great deal*) that measure how fearful, uncertain, and preoccupied respondents are about the safety and security of their current financial situation (e.g., '*Please indicate how you feel about your current financial situation by answering the following questions. How uncertain do you feel?*'). The higher the scores are, the higher the level of financial threat is. The FTS is composed of one dimension with a good internal reliability for the original version (Cronbach α = .89; Marjanovic et al., 2013), as well as in the French version (Cronbach α = .88; Kmiec et al., 2016).

Willingness to act

Participants were asked, by using a 5 point Likert-type scale, to state whether they were willing to act in order to face the economic crisis in general and then according to some specific actions: economic (increasing their consumption, increasing their savings) or civic actions (protests/demonstrations) (e.g., '*In order to act on an economic situation during economic crises, how willing are you to do the following actions?*' 1 = *not at all*; 5 = *very much*).

Economic situation

Participants were asked to evaluate their expected personal future financial situation by using a 5-point Likert-type item adapted from Lempers, Clark-Lempers, and Simons (1989) and Marjanovic et al. (2013) (e.g., '*In the coming years, how do you think your financial situation will change?*'). Low scores indicate an improvement in the individual's financial situation. Participants were also asked to state their past financial hardship ('*The financial hardships I have experienced in the past have been*' 0 = *not at all*; 3 = *severe*). They were also asked to evaluate the economic crisis gravity ('*In your opinion how serious is the present economic crisis?*' 1 = *not at all*; 7 = *very serious*).

Socio-demographic information

At the end of the questionnaire, participants had to provide some demographic information about their age, sex, living arrangements, level of education, personal income assessed via an open-ended question, and professional

position (student; currently employed: full-time, part-time; retired; on disability; not employed; or other).

Data Analysis

Social representations

In line with the structural approach described above, social representations of the economic crisis were explored with Vergès' (1992, 1994) methodological tools based on spontaneous evocations and the prototypical analysis, which allow the identification of the social representation's structure. The content of the social representation of the economic crisis was collected through a free-association task with the target expression 'economic crisis'. This task enables us to access the meaning of social representations and 'the latent dimensions which structures the semantic universe' (De Rosa, 1988, p. 29). The analysis of spontaneous evocations (verbal productions) produces both a descriptive level and potential networks of the terms/expressions composing the social representation. It is also possible to detect the structure of a social representation in terms of its central system and peripheral zones (Vergès & Bastounis, 2001). The technique of analysis is based on the accessibility of information. As pointed out by Vergès (1992), words/expressions mentioned among the first ones (low rank) are easily accessible to participants. When the frequency of words is taken into account, it can be claimed that words with a low mean rank of evocation and a high occurrence constitute indicators of typicality (Rosch, 1973). For each word/expression produced, both the rank (e.g., the first term provided stands for rank 1, the second for rank 2, etc., with the highest possible rank in the present case being 5) and the frequency of occurrence, in relation to the total number of participants, were considered here (Vergès & Bastounis, 2001). Since the average number of verbal productions was 4.92 words per participant, the low mean rank is established as being up to 2.5; whatever is above 2.5 is considered as a high mean rank. According to Vergès, Tyszka, and Vergès (1994), a term is considered as having a high frequency when it is spontaneously produced by a minimum of 20% of the participants. In the present paper, terms produced by more than 20% of the participants are also considered as having a high frequency. Verbal productions corresponding to these criteria (low rank and high frequency) can be identified as good candidates of the central system as previously defined, whereas all other elements belong to the peripheral system. The peripheral system is composed of three different peripheral zones: (1) the first near peripheral zone (high rank and high frequency) covers items which are frequently mentioned and shared but these items are not of high significance; (2) the second near peripheral zone (low rank and low frequency) covers elements which are important for the participants who produce them; while (3) the distant periphery (high rank and low frequency) allows individual differences.

Mediation analyses

A hypothetical model was created with the four economic situations' measures used as predictors (income, gravity, past financial difficulties, and future financial situation change), the FTS as mediator and the willingness to take part into actions' measures (consumption, savings and demonstrations) as outcomes. Non-significant paths will be deleted step by step during the analyses in order to find a model which fits the data. Hu and Bentler (1999) suggested a two-index presentation format because some indexes are complementary: they suggested to use the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990) and the Standardized Root Mean Square Residual (SRMR; Jöreskog & Sörbom, 1989). Similar recommendations were made by Kline (2011) who suggested to use together the chisquared (χ^2), Comparative Fit Index (CFI; Bentler, 1990), RMSEA, and SRMR. Following these recommendations, the chi-squared statistic[2], the CFI[3], the RMSEA[4] with its 90% confidence interval, and the SRMR[5] were used in order to test the fit of our model. Additionally to these indexes, the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973)[6] was also considered.

Results

The results will be presented in two main sections along with the different hypotheses of the present research: (1) first, the structure of the crisis social representation, along with FTS levels, will be studied (*Hypothesis 1*); (2) second, a mediation model will be explored, as the FTS should be the mediator between economic situations (income, gravity, past financial difficulties, and future financial situation change) and the willingness to take part into actions (protests/demonstrations, consumption, and savings) (*Hypothesis 2*).

Social Representation Structure of the Economic Crisis (Hypothesis 1)

A prototypical analysis, based on the mean rank and frequency of the produced evocations allowed testing *Hypothesis 1*. As shown on **Table 1**, these results suggest that the content of the social representation of crisis is mainly shaped by consequences and causes of the crisis.

The first cell of **Table 1** shows that the word with the lowest mean rank and a frequency of appearance which is superior to 20% is *unemployment*, which is identified, by the participants, as a negative consequence of the economic crisis (see the Appendix). The first peripheral zone (mean rank > 2.50 and high frequency ≥ 20%) contains one word, representing another consequence of the economic crisis: *poverty*. In the second peripheral zone, other negative crisis concerns can be found, such as *recession, precariousness,* and *purchasing power* (broadly considered as consequences), along with *money*, mainly describing a cause, having a neutral valence, and *debts*, considered both as a cause and a consequence of the economic crisis. The distant periphery contains a set of words describing other negative effects: *difficulties, injustice, gloom, misery, restriction* (also viewed as a solution), and *fear*. There are also some verbal productions expressing some of the causes of the economic crisis: *bank, finance, world, politics,* and *capitalism*, all perceived as being negative, in this context, by the participants. Therefore, these results allow postulating that the central system of the social representation of the economic crisis, as a place of coherence and structure of the whole social representation,

Whole sample (N = 278)		Rank	
		Low (≤ 2.50)	High (> 2.50)
Frequency	High (≥ 20%)	Unemployment (41%; 2.24; –)	Poverty (21%; 2.80; –)
	Low (<20%)	Money (15%; 2.14; =)	Bank (12%; 3.12; –)
		Purchasing power (15%; 2.41; –)	Finance (9%; 2.56; –)
		Recession (8%; 2.30; –)	Difficulties (8%; 3.09; –)
		Precariousness (6%; 2.47; –)	World (8%; 3.71; –)
		Debts (5%; 2.40; –)	Politics (8%; 3.70; –)
			Injustice (6%; 3.05; –)
			Capitalism (5%; 2.60; –)
			Gloom (5%; 3.00; –)
			Restrictions (5%; 2.80; –)
			Misery (5%; 3.00; –)
			Fear (5%; 3.07; –)

Table 1: Structure of the Social Representation of the Economic Crisis.

Note. The first figure is the frequency provided in percentages; the second is the mean rank of appearance of the term, while the third sign stands for the valence. Frequency ≥ 20% & Rank ≤ 2.50: hypothesized central system; Frequency ≥ 20% & Rank > 2.50: first peripheral zone; 5% < Frequency < 20% & Rank ≤ 2.50: second peripheral zone; 5% < Frequency < 20% & Rank > 2.50: distant periphery. Emotional valence is indicated as follows: '+' for positive feelings; '–' for negative feelings; '=' for neutral ones.

is determined by a consequence of the crisis: *unemployment*. Unemployment seems to be the central notion that makes most sense to people when they think about the economic crisis.

Social Representation in Connection with Financial Threat

After this general description of the social representation for the entire sample, the same prototypical analysis was carried out in connection with the different levels of FTS. To identify high and low levels of financial threat, a hierarchical cluster analysis was conducted on the FTS scores using the Euclidean distance to define the distance between data point and the ward method to create clusters. The cluster analysis was perfomed by using R software (R Core Team, 2013). The cluster dendrogram suggests that the best solution is composed of two clusters with participants having a level of FTS ≤ 2.67 being in the first group, while participants having a level of FTS > 2.67 belong to the second group. Hence, participants obtaining a score up to 2.67 were considered as having a low threat towards their financial stability (M = 2.06; SD = 0.25), whereas participants who score higher than 2.67 on the FTS were considered as financially threatened (M = 3.42; SD = 0.27).

According to the structural approach (Abric, 2001), two social representations are considered different if a minimum of one of the elements of the central system is different in each case. The central system is a shared and consensual part of a social representation, any change in the central system leads to change in the social representation. Furthermore, François (2004) stated that there is an anchoring effect when one item is under or over-represented in one of the compared groups.

Here, the central system of the social representation appears to be composed of *unemployment* for those with a high financial threat, while it is composed of *unemployment* and *money* for those with a low financial threat (see **Table 2**). For the latter, the shared dominant response (central elements of the social representation) seems to be constituted of both the negative results of the economic crisis (*unemployment*) and the possible foundation of the economic crisis (*money*). Thus, results showed that the central ideas organizing the social representation of the economic crisis are different according to the financial threat level. As shown in **Table 2**, participants with a low financial threat look as if they surpass the description of the crisis in terms of consequences; they are also looking at the situation by stressing the causes (e.g., *money*, *finance*, *debt*). On the contrary, participants who feel financially threatened seem to focus their attention on the direct consequences of the crisis (i.e., *unemployment*), while *money* remains in the second peripheral zone. The distant periphery of their representation is mainly composed of consequences (e.g., *poverty*, *difficulties*, *recession*, *fear*). A chi-squared analysis was conducted in order to explore if the repartition, in terms of causes, consequences and others, of the terms belonging to the social representation of each group was different. Results displayed in the Appendix indicate that the social representation of the economic crisis is composed of both causes (odd_{cause} = 0.38) and consequences ($odd_{consequence}$ = 1.19) for participants with a low financial threat, while it is mainly composed of consequences ($odd_{consequence}$ = 2.02) rather than causes (odd_{cause} = 0.26) for those with a high financial threat, $\chi^2(2) = 6.90$, $p = .045$. Participants with a high financial threat mentioned 7.90 more consequences than causes of the economic crisis, while participants with a low financial threat mentioned 3.15 more consequences than causes. According to the central core theory, the role of the peripheral zones of a social representation is to

		Low FTS (N= 144)		High FTS (N= 134)	
		Rank		Rank	
		Low (≤ 2.50)	High (> 2.50)	Low (≤ 2.50)	High (> 2.50)
Frequency	High (≥ 20%)	Unemployment (44%; 2.27; –) Money (20%; 1.96; =)	Poverty (20%; 2.66; –)	Unemployment (37%; 2.20; –)	
	Low (< 20%)	Finance (10%; 2.47; =) Recession (7%; 1.77; –)	Bank (11%; 2.75; –) Purchasing power (9%; 2.77: –) Debt (8%, 2.50; –) Politics (7%; 3.90; =) Injustice (8%, 3.18; –)	Money (10%; 2.43; =)	Poverty (17%; 2.87; –) Bank (11%; 3.73; –) Difficulties (11%; 2.87; –) Recession (9%; 2.77; –) Finance (8%; 2.64; –) Gloom (7%; 3.00; –) Fear (7%; 3.10; –) Politics (7%; 3.50; –)

Table 2: Structure of the Social Representation of the Economic Crisis for Participants with a Low and High Financial Threat.

Note. The first figure is the frequency provided in percentages; the second is the mean rank of appearance of the term while the third sign stands for the valence. Frequency ≥ 20% & Rank ≤ 2.50: hypothesized central system; Frequency ≥ 20% & Rank > 2.50: first peripheral zone; 5% < Frequency < 20% & Rank ≤ 2.50: second peripheral zone; 5% < Frequency < 20% & Rank > 2.50: distant periphery. Emotional valence is indicated as follows: '+' for positive feelings; '–' for negative feelings; '=' for neutral ones.

make the representation more concrete, to protect it and to provide it with functional aspects. It should be noted that the hierarchy of words protecting the central system (i.e., peripheral elements) differs according to the level of financial threat (see **Table 2**). Elements, which are either frequently cited but not cited among the first ones, or cited among the first terms but not frequently, represent respectively the first and second zone of the near periphery. These terms could be classified as central according to one criterion but not according to the other, and they are considered as 'a potentially destabilizing source of change' (Vergès, 1994, p. 238). According to Vergès (1994), these elements are considered as more important than those belonging to the distant periphery.

Whereas a low level of financial threat matches with the presence of words assigning more explanations in the peripheral system (e.g., *finance*), along with a consequence of the crisis (e.g., *recession*), the structure of the crisis' social representation appears to differ when the financial threat is strong. As it can be seen in **Table 2**, people with high financial threat deal with concerns such as *poverty, difficulties, recession, gloom* and *fear*.

Explanations of the crisis were found in the distant periphery, whether people felt financially threatened (*recession, finances*) or not (*bank, debts, politics*). However, it can be noted, based on the prototypical analyses that words specifying causes of the crisis (*money, bank, finance*) are closer to the central system when the financial threat is perceived as low and more distant when the financial threat is perceived as high.

Mediation Model (Hypothesis 2)

Data screening was conducted to detect outliers and the assumption of normality was tested. The outliers labeling rule (Hoaglin, Iglewicz, & Tukey, 1986; Tukey, 1977) based on $g = 2.2$ (Hoaglin & Iglewicz, 1987), indicated that 5 participants could be considered as outliers and were therefore deleted from the subsequent analyses. As the variables are ordered categorical and are normally distributed, the Maximum Likelihood estimator of AMOS 20 was used to conduct the mediation analyses. In the first step, all eight variables were introduced in the model: income, gravity, past financial difficulties and future financial situation change as predictors; FTS as a mediator; and willingness to take part in demonstrations, willingness to increase consumption and savings as outcomes.

Model 1 corresponds to the hypothetical model presented above. The χ^2 value was not satisfactory χ^2 (15, N = 234) = 28.41, $p = .019$. The CFI (.897), the RMSEA (.062, 90% CI .025–.096) and the SRMR indicated an acceptable fit. However, the TLI (.807) indicated a poor fit. Moreover, numerous regression coefficients or covariances were not significant (including the regression coefficients between FTS and consumption, $b_{\text{FTS-consumption}} = 0.017$, $p = .797$; and FTS and savings, $b_{\text{FTS-savings}} = -0.019$, $p = 771$). Overall, the results indicate that Model 1 was not adequate to the data. As described above, in the data analyses, non-significant paths were removed one by one in order to keep only significant paths and to improve the fit of the model. No relationship was found between the income and the other variables (including the other predictors, the mediator and the outcomes). An absence of significant relationship for the two actions, consumption and savings, was also found. Therefore, these three variables (income, consumption and savings) were deleted from the model.

The final model showed that the relationship between, on the one hand, gravity of the economic crisis, past financial difficulties and future financial situation change

and, on the other hand, the willingness to take part into demonstration is fully mediated by the level of FTS. The χ^2 value is satisfactory χ^2 (4, N = 234) = 4.12, p = .389, all indices indicate a good fit of the model: CFI (.999), TLI (.997), RMSEA (.012, 90% CI [.000–.010]) and SRMR (.033).

Results displayed in **Table 3** indicate that gravity, past financial difficulties and future financial situation change were significant predictors of FTS, and that FTS was a significant predictor of demonstration. Further, the direct effect between gravity, past financial difficulties and future financial situation change, and demonstration were non-significant when controlling financial threat.

Moreover, indirect effects were tested using a bootstrap estimation approach with 1,000 samples, all indirect effects were significant: $b_{\text{gravity-demonstration}}$ = 0.052, 95% CI [0.019, 0.095]; $b_{\text{past financial difficulties-demonstration}}$ = 0.042, 95% CI [0.010, 0.087]; and $b_{\text{future financial situation change-demonstration}}$ = 0.119, 95% CI [0.055, 0.185]. Therefore, results show a full mediation of FTS on the relationship between, on the one hand, gravity, past financial difficulties and future financial situation change, and on the other hand, demonstration. **Figure 2** presents the mediation model with the standardized coefficients. Overall, the results indicate that the final model is adequate to the data.

Discussion

Our first hypothesis states that the level of perceived financial threat implies variation in the structure of the social representation of a crisis. People with high levels of financial threat focused on the negative consequences of the economic crisis, whereas people with low financial threat delivered more explanations about the economic crisis (*Hypothesis 1*). The social representation's prototypical analyses showed that the economic crisis is mainly defined by its consequence in terms of *unemployment*. This is coherent with precedent results obtained with the social representation paradigm across Europe, which also emphasized that unemployment was a central element of the representation of the crisis. Considering the economic crisis as a collective threat, Ernst-Vintila et al. (2010) established that its social representation is based on unemployment, banks, the USA and speculation. Galli et al.'s (2010) research, which focused on lay people's knowledge about the economic crisis, revealed common verbal productions across Europe, such as unemployment, bank, money (France), unemployment, poverty (Greece), unemployment, money, and poverty (Italy). Roland-Lévy et al. (2010) underlined that unemployment and economy were elements of the social representation of the economic crisis during another study conducted in France at the beginning of the crisis, in 2008. Additionally, they showed that the social representation of the crisis is linked to social representations of credit and savings. From our results, it can be stated that the shared representation of the economic crisis is persistently focused on its consequences, especially for those who feel financial threat in connection to the crisis. However, more explanations in terms of causes were also found from people being less threatened by financial problems, which supported our first hypothesis. Our results complete the literature on people's explanations of the economic crisis. Indeed, differences in terms of explanations of the economic crisis can be explained by socio-demographic characteristics such as nationality (Leiser, Benita, & Bourgeois-Gironde, 2016;

	Consequence					
	Financial threat (M)			Demonstration (Y)		
Antecedent	***b***	***E***	***p***	***b***	***E***	***p***
Gravity (X)	0.211, 95% CI [0.100, 0.316]	0.039	< .001	0.102, 95% CI [–0.048, 0.269]	0.082	0.209
Past Financial difficulties (X)	0.171, 95% CI [0.056, 0.278]	0.047	< .001	0.147, 95% CI [–0.174, 0.254]	0.099	0.139
Future Financial situation change (X)	0.481, 95% CI [0.377, 0.571]	0.048	< .001	0.049, 95% CI [–0.054, 0.337]	0.11	0.658
Financial threat (M)	–	–	–	0.247, 95% CI [0.110, 0.360]	0.108	< .001

Table 3: Model coefficient for the effect of gravity, past financial difficulties, future financial situation change and financial threat on demonstration.

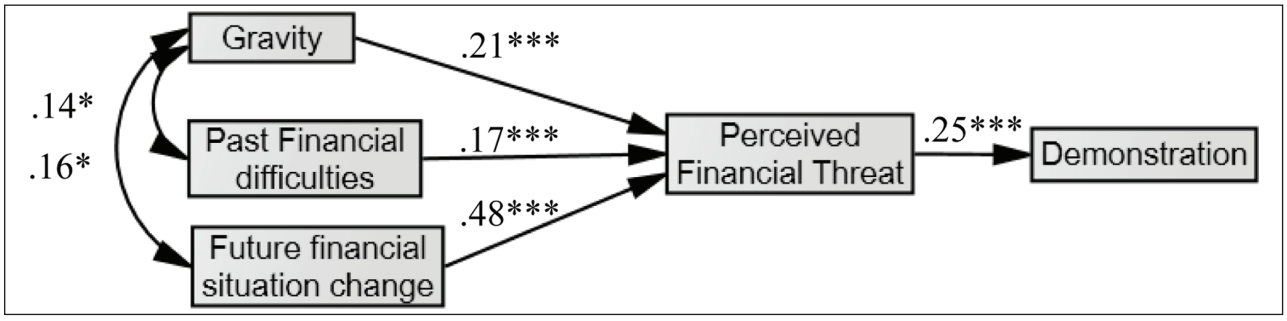

Figure 2: The mediation model of gravity of economic situations, past financial difficulties and future financial situation change as predictors of the action demonstration, fully mediated by the level of perceived financial threat.

Savadori, Nicotra, Rumiati, & Tamborini, 2001), or religion (Leiser, Bourgeois-Gironde, & Benita, 2010) and by cognition (Leiser et al., 2010).

Moreover, the peripheral components of the representation are anchoring the social representation in the reality and provide a concrete interface between real life in a specific context and the central system (Valence & Roussiau, 2006); they also provide some insights about the possible evolution of the crisis' social representation in connection with actions. Indeed, the main role of the peripheral system is to protect the coherence of the central system; words found in the periphery may vary around individual differences. Consequently, variations across peripheral elements due to the level of financial threat illustrate a more personal appropriation of the crisis' social representation; they also provide some interesting information regarding the regulation of behaviours and could transform the social representation (Flament, 2001). As pointed out by Vergès (1994), the first two peripheral zones constitute a place for potential change. According to Valence and Roussiau (2006), because of their high frequency (salience), items from the first peripheral zone can potentially modify the social representation (some elements of that zone could integrate the central system). For the participants with low financial threat levels, poverty, as a consequence of the crisis, could therefore progressively be incorporated into the central system of the representation of the economic crisis, while for the other group, there is no item that can be seen as a new 'candidate' for the central system.

'Taking into account the emotional aspect can be essential to understand the intern organization of the corresponding social representation' (Deschamps & Guimelli, 2002, p. 84). Financial threat might impact the social representation of the crisis by providing a different anchoring. If we refer to ways of thinking, such as with System 1 (which implies speed of response in a crisis, jumping to conclusions) and with System 2 (which allows reflection, options, pros and cons, deliberative) (e.g., Sloman, 1996; Stanovich & West, 2000), it appears that people who are less stressed (i.e., those who have a lower level of financial threat) are more able to mobilize System 2 and provide explanations about the financial crisis through a 'picture' which is larger than for those who feel financially threatened. They are able to think in a logical manner, whereas participants feeling threatened and concerned by financial problems provide responses that are more intuitive and emotional, in line with the consequences affecting them directly. This is also coherent with approaches focused on 'encoding information' (Schwarz, 1990) in which, when information about the economic crisis is encoded, the presence of joy helps to minimize risk, while fear is accompanied by a pessimistic vision of the situation (Lerner & Keltner, 2001). Lower level of financial threat, which has previously been associated with higher psychological well-being, less worry, lower mood disturbance, and lower depression (Marjanovic et al., 2013), helps individuals to have an inclusive and more active vision of a situation. The level of financial threat of our French sample (M = 2.72, SD = 0.86) is higher than the levels measured in Belgium (M = 2.16, SD = 0.83) and in Germany (M = 2.38, SD = 0.89), but lower than those measured in Spain (M = 3.53, SD = 0.91) and in Portugal (M = 3.65, SD = 0.90) (Marjanovic et al., 2015). This is in agreement with economic indicators, such as the GDP or the unemployment rate (Eurostat, 2016a, 2016b) for which France falls between on the one hand, Belgium and Germany which have a higher GDP and a lower unemployment rate and on the other hand, Portugal and Spain which have a lower GDP and a higher unemployment rate. Therefore, in a following study, it could be interesting to compare the social representation of the economic crisis among countries with different levels of financial threat.

Our second hypothesis was that economic and financial indicators are closely related to perceived financial threat, which is a mediator between people's own perception of their economic situation and their actions. The statistical analyses showed that income is not related to financial threat, nor to willingness to protests, nor to willingness to increase consumption and/or savings. In other words, this means that the amount of money that people earn does not affect their perception of financial threat in the context of a financial crisis. In other words, even people who earn a lot can feel threatened by the financial context; it is their perception of the gravity of the crisis, combined with their past difficulties and their future financial expectations, which is related to their level of financial threat rather than to their income. These results are in line with the literature in social protest that generally highlight the role of economic difficulties as key predictor in participation of social protest (Bernburg, 2015; Rüdig & Karyotis, 2014). The statistical analyses also indicated an absence of relationship between, on the one hand, the situations' variables and the financial threat, and on the other hand, the actions of consumption and/or savings. From an economic theory perspective, savings and consumption are elements which are part of economic growth models. According to a Neoclassical vision, or a supply point of view, an increase of savings should lead to a raise of the investment and therefore to an increase of the production. On the contrary, form a Keynesian perspective, or demand point of view, only the increase of consumption leads to a rise in terms of the economic growth. Consequently, by not increasing their 'savings' or 'consumption' in relation to their financial threat, participants may not reason as a '*homo œconomicus*' contrary to what is assumed by mainstream macroeconomic models. Indeed, participants do not interpret the actions 'saving' or 'consumption' as being elements which are part of a model, but rather as piecemeal, as it was shown through the *good-begets-good* heuristics (Leiser, 2001; Leiser & Aroch, 2009) and in the study by Bastounis, Leiser, and Roland-Lévy (2004). Indeed, lay economic representations appear to be self-organized around one economic variable itself (such as consumption) rather than one economic variable being part of a model (e.g., consumption or investment as factors of economic growth). Consequently, '*the economic thought of lay people seems to be self-organized around economic phenomena in general*' (such as 'Unemployment' in the present social representation) 'rather than around economic theories' (Darriet & Bourgeois-Gironde, 2015, p. 252).

The mediation model indicates that the financial threat fully mediates the relationship between the situations' variables and the willingness to take part into protest and demonstrations. In other words, all the effects of the situations' variables (including gravity of the economic crisis, past financial difficulties, and future financial situation changes) on the willingness to be part of a protest, passes through the level of financial threat. Nevertheless, there are some opposing views about street protests and demonstrations. Our results seem to be more coherent with the value-belief-norm theory of Support for Social Movements (Stern, Dietz, Abel, Guagnano, & Kalof, 1999), which claims that people who admit protest values think that social objects they value are threatened. These people believe that their actions contribute to reestablishing these values and they experience the action of demonstrating as an obligation, or a personal norm, that requires them to join a collective action. Being part of a demonstration or a protest is the only action, in our study, that implied the presence of other people to defend potential collective values. Moreover, protesting appears to be a way for an individual to express his/her anger against who is to blame for the economic crisis. Indeed anger is considered as a strong motivator for demonstration participation (Van Zomeren, Spears, Fischer, & Leach, 2004).

The concept of financial threat defined by Marjanovic et al. (2013) is closely related to the concept of vulnerability which is described as 'a perception of existing condition as precarious' (Staerklé, Delay, Gianettoni, & Roux, 2007, p. 397). Although the two concepts are theoretically alike, there are differences in the way they are measured. While the financial threat scale assesses emotions (e.g., worry, uncertainty) related to financial situations, the vulnerability scale assesses the likelihood to be in particular situations (e.g., needing economic support from friends and relatives). However, our results are in line with those found with the vulnerability scale. For example, Poeschl, Valentim, and da Silva (2015) didn't find that, in Portugal, the level of income influences the inclination to take part into actions, such as civic participation, violence, or economic resistance. Moreover, their results also suggest a weak relationship between income and feelings of vulnerability ($\eta^2 = .05$ for both financial and fulfillment vulnerability) similarly to the relationship found in this study between income and financial threat ($r^2 = .05$). Furthermore, Chryssochoou, Papastamou, and Prodromitis (2013) found that, in Greece, even though income influences some actions in reaction to the crisis, the feeling of vulnerability is a better predictors for most of the actions including the activism actions (e.g., strike, participating in public demonstrations against austerity measures). According to Moscovici (2001), contemporary social psychology attempts to explain phenomena rather than to describe them and allows practical suggestions. If the modes of reasoning of 'the man from the street' (Rateau & Moliner, 2009) have little to do with formal logic, it implies considering that 'the man from the street' is a 'tactician motivated' (Fiske & Taylor, 2013) by the social context, referring to social cognitions to consider the environment and social reality for himself/herself and in his/her relations with others. The qualitative approach of the social representation and its practical orientation provide a background, which helps to understand peoples' actions and to illustrate lay knowledge transformation.

To summarize, the representation of highly threatened participants was exclusively focused on unemployment and seemed to guide people towards collective actions, such as protesting. Social representations then 'produce and determine the behavior, since they defined both the nature of the stimuli around us and [...] the meaning of answers to give them' (Moscovici, 1961, p. 26). Social representations are the premise of actions as citizens, and with specific economic responses. Consequently, social representations as a system of social norms and values about the economic crisis act as a facilitator, enhancing the possibility to go from a collective feeling of threat to a collective action.

Our study presents some limitations in analyzing the crisis gravity; we assessed the gravity of the crisis using only one item. It would be interesting to use a scale with more items. According to our knowledge, no scale exists to measure this particular aspect of crises' perception. It could be interesting in a coming study to create a measure of crises' gravity perception. Similarly, past financial difficulties and expected future financial situation changes were also assessed with one item, which is an additional limitation of this study. Moreover, the idea of looking at willingness to act in different ways could be taken further. In line with Keynes (1936) and Béraud and Faccarello (1992), we presumed that financial threat would mediate the relationship between participants' economic situations and their savings and consuming behavior. However, no relationship was found between financial threat and participants' savings or consuming behavior. Both consuming and saving in response to economic downturn seem to be undertaken by participants in this study. These actions could mainly be considered as individual actions without any interdependence between different people. As pointed out by Adger (2010), adaptation processes when facing collective threats, such as climate change, imply mutual dependence and common rules of agents. It would be worthwhile to complete our model by identifying other actions which are linked to people's financial threat, such as voting for extreme parties or taking part in participative economy through, for example, Airbnb or Uber. It would also be interesting to observe the transformation of the economic crisis social representation in line with personal economic situations along with the evolution of the global economic context. To go further, hypotheses about the time of transformation (quick or progressive), along with the present structure centered on causes or on consequences, as well as the perceived irreversibility of the economic crisis, could be tested. Finally, as the financial threat and vulnerability concepts are theoretically analogous, it could be interesting to examine the relationship between the measures of financial threat and vulnerability which assess similar concepts but in different ways: through the emotions for the former and the likelihood to be in particular situations for the latter.

This article helps to gather more knowledge about the differences between the economic theory and lay economic understanding, which seems essential, as it has

been shown as having consequences on the economic policies, and more particularly on central banks' communications (Dixon, Griffiths, & Lim, 2014; Dräger, Lamla, & Pfajfar, 2014).

Conclusion

Taking into account both economic representations and the psychological variables linked to economic concerns, this study completes existing researches by providing deeper attention to social knowledge and behavior associated to crises. It enables to understand how social knowledge can help people not to focus only on negative aspects of an economic insight. Since the connection of social representations with actions and behavior have been shown (Denis & Dubois, 1976; Lameyre, 1993), shared knowledge about economic facts of life, such as a crisis, should be taken into account to stimulate the emergence of adaptive responses facing economic downturn situations.

Notes

[1] As it can be seen on **Figure 1**, the correlations between exogenous variables are estimated, while the correlations between endogenous variables are set as free.

[2] Non-significant χ^2 values correspond to an acceptable fit.

[3] A CFI above .90 is acceptable and above .95 is good.

[4] A RMSEA lower than .08 is acceptable and lower than .05 is good.

[5] A SRMR lower than .10 is acceptable and lower than .05 is good.

[6] A TLI above .90 is acceptable and above .95 is good.

Additional Files

The additional files for this article can be found as follows:

- **Additional File 1: Appendix.** http://dx.doi.org/10.5334/irsp.84.s1

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Competing Interests

The authors have no competing interests to declare.

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