2016

A Similarity Graph-based Approach to Study Social Representations of the Economic Crisis: A Comparison between Italian and Greek Social Groups

Roberto Fasanelli
University of Naples Federico II, fasanell@unina.it

Anna Liguori
University of Geneva, anna.liguori83@gmail.com

Ida Galli
University of Naples Federico II, idagalli@unina.it

A Similarity Graph-based Approach to Study Social Representations of the Economic Crisis: A Comparison between Italian and Greek Social Groups

Roberto Fasanelli
University of Naples "Federico II"
(fasanell@unina.it)

Anna Liguori
University of Geneva
(anna.liguori83@gmail.com)

Ida Galli
University of Naples "Federico II"
(idagalli@unina.it)

Abstract

In order to analyse the common sense theories about the economic thinking and acting, this research has been conducted with the theoretical framework of the Social Representation Theory. By interviewing Italian and Greek participants belonging to different social groups, we examined how *expert* and *lay* people face this phenomenon. Inspired by the Structural Approach, which considers SRs as constituted of two parts (a structure and a content), data were collected through specific strategies and were created *ad hoc*: hierarchized evocations, characterization and multiple choice questionnaires. Four groups of participants (N=120 for each country; n=30 for each group; gender balanced) were employed: university students (second/third year; Faculty of economics), mid-level bank clerks, shopkeepers, and laypeople. Obtained data were treated with rang/frequency and similarity/network analysis, as well as mono and bivariate statistical analysis. The main findings demonstrate culture and group membership differences in the ways participants define and foresee strategies to face the crisis. In particular, in both Italian and Greek samples, differences between *expert* and *lay* groups are clear. Methodological implications associated with combining qualitative and quantitative methods, in SRT's Structural Approach, are presented and discussed.

Introduction

When confronted with an external threat like the economic crisis, people draw on social representations to provide meaning to this unfamiliar situation. Through media and interpersonal communication, social groups produce "naïve theories" that improve familiarity with the phenomenon. This research has been conducted using the Social Representation Theory (Moscovici, 1961), in order to analyse these common-sense theories - on economic thinking and acting – co-constructed through daily communication. This theory, in fact, contributed to understanding the societal process of sense-making when an unexpected external shock comes down on society (Puashunder, 2012) and offers a way to comprehend economic phenomena's impact on common people. Social representations (SRs) have the function of making familiar the unfamiliar and usual the unusual

(Farr & Moscovici, 1984) and grant orientation in times of change (Moscovici, 1984). Through capturing discourse and knowledge-exchange in the social compound, social representations, thereby, allow delineating dynamic processes of socio-economic adaptation (Kirchler, 2007). In line with the tradition of economic psychology, the study of social representations of economics is also important to identify different types of financial behaviours (Roland-Lévy & Adair, 1998).

This research is part of a wider International study, which was started in 2009 in different European countries (France, Great Britain, Greece, Italy and Romania) as part of the activities of the "Mediterranean Center for the study of Social Representations (CeMeRS)". Data related to the first phase of the research (beginning period of the crisis) were already published in a special issue of the *Cahiers Internationaux de Psychologie Sociale* (Galli, Markova, Bouriche, Fasanelli, Geka, Jacob & Jacob, 2010).

The purpose of this investigation is to examine the structure of different social groups' representations and their relation with economic social practices, in two different countries: Italy and Greece. The study starts with the following research questions: *Do different social groups construct different social representations of the economic crisis? What are the differences among the SR of an economic crisis produced in different cultural contexts and in different times?*

Method

We employed a non-probabilistic sample, composed of 120 participants from each country, equally distributed in four social categories: university students (second/third year; Faculty of Economics), bank clerks (medium level), shopkeepers and lay people. Participants have been balanced not only on each category (n = 30), but also on gender (15F – 15M). They also had to be in a defined age range (30-60 years old) and from the same geographic area.

Agreeing with the Vergès & Bastounis (2001) position about studying the SR of an economic object, "it therefore becomes necessary to take on complementary instruments and forms of analysis […] that would expand the information obtained illustrating the relationships that bind the concepts" (p. 35). In this direction, we have chosen a multi-method approach to find out the structure and the content of the SR for each social group, in each country (Abric, 1994a, 2003; Flament, 1994a, 1994b; Guimelli, 1994; Vergès, 1994a, 1994b, 1995). As Zappalà (2001) suggests, "The theory of central and peripheral systems allows one to compare groups or countries, disclosing the structuring principles of a specific economic object and the network of associations which give them sense" (pp. 200-201). In this theoretical framework, to reach the "significant elements" of the social representation of the economic crisis, and to reconstruct the organization of these elements, we chose the Method of Hierarchized Evocation (Vergès, 1992; Abric & Vergès 1994, Vergès & Bastounis, 2001; Abric, 2003). In the first part

of the interview, after an open question about the social definition of the "crisis", we asked the participants to answer to a free associations and hierachization task, as Vergès' method provides (Vergès 1992; Vergès & Bastounis, 2001). We then completed the free association task with open-ended questions about the subjective justification linked to each of the associated terms. The aim was to avoid lexical ambiguity, which is typical of this kind of data (Fasanelli, Galli, & Sommella, 2005). A Questionnaire of Characterization (QCha), which started with social descriptions and explanations of the crisis, was identified in the first SRec study (Galli *et al*., 2010). It was added to check the centrality of the structural elements. In this case, participants were asked to order the first most important five statements and the first least important statements, among a list of 15 (according to the rule of a multiple of 3) to code every item with a score of 1 (less characteristic), 3 (more characteristic), or 2 (not chosen) (Vergès, 1995, 2001).

Vergès (1994a) states that with the interview it was possible to, on the one hand, reach the SR's structure and, on the other, show how this structure can be translated into argumentation. In order to access the content of the social representation of the economic crisis, a series of Questionnaires of Choice (QCho) were constructed, starting with the results of the mentioned intercultural study (Galli *et al*., 2010). This section of the questionnaire investigated the following dimensions: cognitive-evaluative aspects about the structure of the representation (central and peripheral elements); descriptive-defining aspects of the representation; informative sources and interaction networks; level of involvement/ implication; relationship between representation and social practices; perceptions and categorizations (causes, responsibilities, duration/evolution, solutions, positive implications, the EU's role).

The terms evocated by the participants were first treated with a lexical and categorical analysis. In the lexical phase, they were aggregated on the basis of the synonymy criterion in order to obtain clusters of terms substantially coincidental with the manifest meaning (Bardin, 2003). Therefore, using a semantic criterion, terms have been further aggregated starting from their justifications. Each of the obtained clusters were associated with a new label. Every label was identified using, as a selective criteria, the high semantic proximity and frequency of occurrence of every term aggregated inside of it. Three independent judges have completed the whole analytical process. Each judge worked first individually; then, afterward, all of them discussed their analysis and agreed on a shared position. Only when the aggrement was complete within the three judges, was the result of the analyses considered. The obtained data was then processed by the software *Evoc2005*. The hierarchized evocation analysis was allowed to reach the elements, which constitute the central core and the periphery of the social representation of the economic crisis, for each group of participants.

Data from questionnaires were treated with a Similarity Analyze (Flament, 1962; Vergès & Bouriche, 2009). This analysis (a particular type of network) was supported by the software *Simi2005*, which has the advantage to better show the organizational

structure of the significant elements of every SR. This analysis consists of an elaborate matrix of similarity starting from the selected index, which depends on the nature of the relationship among the considered variables. In our case, the co-occurrences index was selected for hierarchized evocations and QCho data and the Kendall's tau was preferred for QCha data. The graphic output of this analysis consists of a graph, on which the structural elements of the SR are shown with different kinds of links (more or less marked), on the basis of their value. Selected threshold express the relations (and their strength) between structural elements and their network. The final graphs were elaborated using the logic of the *thresholds graph*, rather than the *maximum tree*, in order to serve the best number of information about the clustering elements (Vergès & Bouriche, 2009).

Data from the characterization's questionnaire were explored using a descriptive analysis and a similarity analysis to confirm/infirm the hypothesis of centrality of the elements supposed to be in the nucleus.

Data from Questionnaires of Choices were investigated using a Similarity analysis, not only in a traditional way, but furthermore in a multidimensional procedure, analyzing together more components of the social representation. In particular, *coping strategies, changes in social practices, causal attributions and hypothetical solutions*, were involved in this reassessment of the first multidimensional Similarity analysis, realized by Abric & Vergès (1994) in their study on the social representation of the bank.

Moreover, a descriptive statistical analysis was conducted on all the variables in order to identify differences between groups of participants (Chi-square test).

Results[1]

Our research results shows that, since 2009, there were some differences in the way the participants constructed their reasoning about the crisis. As had already happened in Galli *et al.* (2010), in the different representational structures of the three "more expert" categories - identified from their "distance from the object" (Dany & Abric, 2007), the same elements were used in explaining the crisis but with a different meaning. Moscovici (1986, 1988) defines this kind of social representation as "critical/polemical".

The analysis of structure and content of the fourth involved social category, laypeople, brought to underline some unexpected differences. These "less expert" people, beyond differentiating their central core with the reference to *Slump of purchasing power* (to something more referred to the concrete consequences on everyday life) registered, already in 2009, a reference to *Uncertainty, fear of future*: an element very salient and important for a minority of participants belonging to this category. This "anticipatory" element was the only one that seems to differentiate laypeople from the other categories. In fact, elements that suggest a laypeople use of abstract and theoretical elements, next to

---

[1]Due to space limitatations, it was impossible to describe all of the results.

the references to more practical consequences, are not absent in constructing their naive theory, as shown by the role played by *References to economy* and *Uncertainty, fear of future* in their representations.

Table 1

Central cores - Italian and Greek whole sample

Results typology		
Technique	***Italian whole sample***	***Greek whole sample***
Hierarchized evocations	Job loss Incapacity of politics Increase of poverty	Job loss Anguish Insecurity
Similitude/Characterization	Job loss Uncertainty, fear of future	Job loss Salaries decrease Uncertainty, fear of future

Table 2

Central cores - Italian and Greek subsamples

Results typology/Technique/Subsamples				
Italian subsample	*Students*	*Bank clerks*	*Shopkeepers*	*Lay people*
Hierarchized evocations	Job loss	Job loss	Job loss Uncertainty, fear of future	Job loss
Similitude/Characterization	Job loss Uncertainty, fear of future	Job loss Uncertainty, fear of future	Job loss Slump of consumptions	Job loss Uncertainty, fear of future
Greek subsample	*Students*	*Bank clerks*	*Shopkeepers*	*Lay people*
Hierarchized evocations	Job loss	Job loss	Job loss	Indigence, misery, starvation
Similitude/Characterization	Uncertainty, fear of future Salaries decrease Prices increase	Job loss Uncertainty, fear of future Generalized distrust	Uncertainty, fear of future Salaries decrease Stress and frustration	Job loss Uncertainty, fear of future Salaries decrease

Table 3

SR structure - Greek students

Frequency		Importance			Importance		
		<2,5			≥2,5		
		Job loss	20	2,25	Debt	8	2,62
					Increase of poverty	12	3,00
	≥8	Job loss	14	2,28	Increase of poverty	9	2,77
					Uncertainty of future	8	3,25
	<8	Anguish	3	2,33	Less money to spend	3	4,33
		Insecurity	5	2,40	Anger	3	2,66
		Indignant	2	2,00	Decadency	3	2,66
		Limits	2	2,00	Indigence, misery, starvation	5	3,20
		Recession	2	1,00	Depression	2	4,50
					Debt	2	2,50
					Euro	2	3,00
					Incapacity of politics	2	5,00
					Infelicity	2	3,00
					Fear	2	4,00
					Loans	2	3,00
					Earnings	2	2,50

Table 5

SR structure - Greek shopkeepers

Frequency		Importance			Importance		
		< 2,5			≥ 2,5		
	≥6	Job loss	17	2,00	Increase of poverty	6	3,00
					Indigence, misery, starvation	8	3,00
					Decadency	6	2,50
	<6	Anguish	4	1,75	Taxes	2	3,00
		FMI	2	1,50	Failure	2	3,50
					Uncertainty of future	2	3,00
					Insecurity	3	2,66
					Reduction	2	3,00
					Exploitation	2	3,50
					Salaries decrease	2	4,00
					Rebellion	2	3,50
					Robbery	2	3,50
					Incapacity of politicians	3	3,00

Table 6

SR structure - Greek laypeople

Frequency		Importance			Importance		
		< 2,5			≥ 2,5		
	≥7	Indigence, misery, starvation	8	2,25	Increase of poverty	13	3,00
					Anguish	7	3,00
					Job loss	17	2,76
	<7	Euro	3	2,33	Failure	4	4,25
		Insecurity	4	1,75	Uncertainty of future	4	2,75
		Fear	4	2,00	Salaries decreases	3	3,00
					Rebellion	3	4,66

Table 7

SR structure - Italian students

		Importance					
		< 2,5			**≥ 2,5**		
frequency	**≥11**	Job loss	21	2,19	High cost of living	13	3,30
					Uncertainty/fear of future	11	2,30
					Less money to spend	15	3,80
					Ref. to economy	11	3,00
	>11	Increase of poverty	5	2,00	Bank at the origin	8	2,87
		Incapacity of politics	9	1,77	Bank effect	4	4,00
		Taxes	5	2,60	Causes	7	3,28
		Victims	4	2,50	Crisis enterprises	4	3,75
					Ref. to finance	6	3,00
					Distrust	8	4,12
					Hope in possible solutions	3	3,00
					Social tension	2	3,50

Table 8

SR structure - Italian bank clerks

		Importance					
		< 2,5			**≥ 2,5**		
frequency	**≥9**	Job loss	17	2,17	Uncertainty/fear of future	21	3,00
					To spend less money	19	4,33
					Hope in possible solutions	11	3,09
	>9	High cost of living	5	2,40	Global extension	5	3,80
		Victims	6	2,33	Incapacity of politics	7	2,85
					Insolvency debts and loan	8	2,75
					Necessity of change	7	2,80
					Reduction saving and invest.	7	3,85
					Red. purchasing power	4	3,50
					Social tension	6	2,83
					Ref. economy	8	3,87
					Ref. finance	5	2,60
					Distrust	4	3,75

Table 9

SR structure. Italian shopkeepers

		Importance					
		< 2,5			**≥ 2,5**		
frequency	**≥11**	Job loss	13	2,15	High cost of living	15	3,20
		Uncertainty./fear of future	14	2,42	Less money to spend	22	3,27
					Neg. exp. and feelings	13	3,00
					Incapacity of politics	11	2,63
	<11	Increase of poverty	8	2,37	Euro	4	3,00
					Ref. to finance/economy	3	3,00
					Poor culture	3	3,66
					Possible solution	8	3,37
					Spec. enterprises	5	3,20
					Taxes	9	2,88
					Victims	6	3,33

Table 10

SR structure - Italian laypeople

		Importance					
		< 2,5			**≥ 2,5**		
frequency	**≥11**	Job loss	20	2,20	High cost of living	10	3,60
					Uncertainty/fear future	22	2,68
					Less money to spend	14	4,00
					Incapacity of politics	13	3,00
					Ref. to economy	11	3,81
	>11	Possible solutions	9	2,55	Increase of poverty	7	3,00
		Neg. exp. and feelings	9	2,33	Aggravation quality of life	5	2,80
					Ref. finance	4	2,75
					EU's role	4	3,50
					Causes	5	3,20
					Taxes	3	3,33

The social group that seems to differ the most in their way of thinking of the crisis, since 2009, is the shopkeepers one. Not only their central core but also the different components of the content seem to suggest a more practical/professional oriented optic, different from the more theoretical one revealed by students and bank clerks, and partially by laypeople.

In 2012 these differences between groups of participants seemed to be accentuated. The particular vision of shopkeepers is confirmed by structure analysis as well as by SR's content analysis. In the structure analysis, referring to the central core, the biggest difference is that *Uncertainty, fear of future* is not central, while what is central *Increase of prices*, is strictly correlated to their activity. Also the significant differences in the SR's content analysis, supported by the details on every component through similarity graphs, show the professionally oriented and absolutely different vision of shopkeepers. So, with reference to our participants, professionalization appears not to be sufficient to mark a difference between "expert" and "non expert" knowledge, but probably some kinds of professional contexts orientate stronger differences in constructing the social representation of such a complex economic incident.

Table 11

Characterization data (percentages of choice)

Greek students			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Uncertainty, fear of future	0	20	80
Salaries decrease	0	17	83
Prices increase	17	23	60
Job loss	0	40	60
Slump of consumptions and sales	10	77	13
Savings and investments reduction	13	73	13
Malfunctioning of banks and finance	10	63	27
Stress and frustration	30	40	30
Slump of purchasing power	20	57	23
Generalized distrust	30	53	17
Phase of the economic cycle	37	43	20
Demand decrease/ offer excess	33	43	23

Table 12

Characterization data (percentages of choice)

Greek bank clerks			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Uncertainty, fear of future	4	14	82
Job loss	11	18	71
Generalized distrust	21	29	50
Stress and frustration	18	32	50
Salaries decrease	4	36	61
Malfunctioning of banks and finance	21	36	43
Demand decrease/ offer excess	25	75	0
Savings and investments reduction	11	75	14
Slump of purchasing power	7	75	18
Slump of consumptions and sales	14	50	36
Prices increase	46	50	4
Phase of the economic cycle	43	43	14
Something inevitable	82	14	4
Media invention	71	14	14
Conspiracy, plot	64	14	21

Table 13

Characterization data (percentages of choice):

Greek shopkeepers			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Uncertainty, fear of future	0	4	96
Salaries decrease	0	30	70
Stress and frustration	0	30	70
Job loss	4	37	59
Slump of consumptions and sales	0	44	56
Savings and investments reduction	0	85	15
Demand decrease/ offer excess	19	70	11
Slump of purchasing power	4	70	26
Malfunctioning of banks and finance	19	59	22
Prices increase	26	59	15
Generalized distrust	15	56	30
Phase of the economic cycle	48	48	4
Something inevitable	63	37	0
Media invention	63	33	4
Conspiracy, plot	48	30	22

Table 14

Characterization data (percentages of choice)

Greek laypeople			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Uncertainty, fear of future	3	14	83
Job loss	0	28	72
Salaries decrease	0	31	69
Demand decrease/ offer excess	24	66	10
Savings and investments reduction	21	66	14
Phase of the economic cycle	38	59	3
Prices increase	28	55	17
Malfunctioning of banks and finance	17	45	38
Slump of purchasing power	3	59	38
Slump of consumptions and sales	10	52	38
Stress and frustration	0	52	48
Generalized distrust	17	41	41
Conspiracy, plot	41	41	17
Something inevitable	62	38	0
Media invention	52	41	7

Table 15

Characterization data (percentages of choice)

Italian students			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Job loss	3	13	83
Prices increase	13	27	60
Uncertainty, fear of future	23	23	53
Salaries decrease	7	43	50
Generalized distrust	20	47	33
Slump of consumptions and sales	3	50	47
Malfunctioning of banks and finance	20	50	30
Slump of purchasing power	7	53	40
Savings and investments reduction	20	53	27
Demand decrease/ offer excess	30	57	13
Stress and frustration	50	27	23
Phase of the economic cycle	63	20	17
Something inevitable	63	30	7
Media invention	83	17	0
Conspiracy, plot	87	3	10

Table 16

Characterization data (percentages of choice)

Italian bank clerks			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Generalized distrust	10	37	53
Uncertainty, fear of future	3	33	63
Job loss	7	30	63
Prices increase	20	53	27
Demand decrease/ offer excess	27	50	23
Salaries decrease	3	53	43
Slump of consumptions and sales	10	43	47
Savings and investments reduction	10	50	40
Slump of purchasing power	20	37	43
Phase of the economic cycle	40	30	30
Stress and frustration	50	20	30
Malfunctioning of banks and finance	47	37	17
Something inevitable	73	17	10
Conspiracy, plot	77	17	7
Media invention	90	10	0

Table 17

Characterization data (percentages of choice)

Italian shopkeepers			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Job loss	0	30	70
Slump of consumptions and sales	7	27	67
Prices increase	13	27	60
Slump of purchasing power	10	40	50
Salaries decrease	7	47	47
Uncertainty, fear of future	23	40	37
Generalized distrust	37	30	33
Stress and frustration	30	27	43
Malfunctioning of banks and finance	43	23	33
Savings and investments reduction	13	53	33
Demand decrease/ offer excess	43	43	13
Something inevitable	47	47	7
Phase of the economic cycle	60	33	7
Media invention	77	23	0
Conspiracy, plot	87	13	0

Table 18

Characterization data (percentages of choice)

Italian laypeople			
Items	*Least characteristic*	*Not selected*	*Most characteristic*
Uncertainty, fear of future	0	20	80
Generalized distrust	23	33	43
Job loss	3	30	67
Malfunctioning of banks and finance	37	20	43
Stress and frustration	47	20	33
Prices increase	13	53	33
Demand decrease/ offer excess	33	43	23
Salaries decrease	30	43	27
Slump of consumptions and sales	7	50	43
Savings and investments reduction	0	57	43
Slump of purchasing power	13	43	43
Phase of the economic cycle	47	40	13
Media invention	90	10	0
Conspiracy, plot	87	10	3
Something inevitable	70	27	3

The difference we could draw between the three "more expert" categories of participants and the "less expert" one, comes out from Similarity Analysis. What we can observe in characterization similarity graphs, as well as in the other content component graphs, is that, while for the first three categories of participants it is possible to find particular visions of the crisis, it is not possible for laypeople. This could be referred to the different level of organization reached by the more expert participants' social knowledge than the non expert one. Vergès & Bastounis (2001) indicate that when the configuration of a representation is based on "images composed of a series of elements that do not appear to be organised in any specific structure" (p. 47) it could mean that we are in front of a representation in phase of "selection". This stage is the first of the three processes (selection, connotation and schematization[2]) that characterizes the anchoring process of an economic (but not only) social representation. Instead for the similitude graph in 2012, we can start to identify more clusters that suggest specific interpretation, indicating the passage from the phase of selection to the phase of connotation for laypeople and schematization for students, bank clerks and shopkeepers. Laypeople in fact, generally present a certain level of elements clustering, but without a definite structure, as it happens in the connotation process, when "subjects appreciate more or less the selected elements of the representation in a way that economic phenomena are associated with social consequences" (Vergès & Bastounis, 2001, p. 47). Students, bank clerks and shopkeepers, show more structured clusters that suggest their specific visions of the crisis, producing some "schema resembling a model of interpretation of the economic reality" (Vergès & Bastounis, 2001). These data are yet evident into characterization similitude graphs, where three interpretations of the crisis, "consequences focused", "distrust, frustration and fear of future centred", and "mediatic-fatalistic-conspiratory oriented", are observed in students, bank clerks and shopkeepers graphs, while laypeople's interpretation of the crisis is more oriented to *connote* what crisis is not. In causes, *strategies and solutions* graphs too, it is possible to evidence some areas "of meaning" for the first three groups of participants, while it is difficult to go beyond the connotation process for laypeople. This does not mean they don't have a concrete image of the phenomenon, but that the elements that co-occur in their graphs can be described just in their connotative meaning but not in a more systemic, structured and articulated vision.

It is possible to affirm that our data show a higher level of "schematization" for expert knowledge while non expert one, seem to rest at the stage of "connotation" (Vergès, 1992). Laypeople, anyway, do not seem to be extraneous to abstract reasoning, more typical of students and bank clerks, but also to more practical and professional elements, so peculiar of shopkeepers. Nevertheless, when we analyze these elements together re-

[2]According to Vergès (1992) three processes characterize the evolution of a social representations: the *selection* process, when the social actors select the organizing principles of their knowledge; the *connotation* process, when participants use attributes to judge and qualify the selected elements; the *schematization* process, when "naïf scientists" enlighten existing relations among these elements.

constructing the path of laypeople reasoning about the crisis, the image obtained is more focused on connotation of what crisis *is not*, despite what crisis *is*.

What we can conclude at this stage of the research process is that there are certainly differences between social categories in both 2009 and 2012. These differences in 2009 are more relative to the sense given to the different elements, without huge differences between expert and non expert knowledge, that oscillate between concrete and abstract reasoning. In 2012, differences among categories of participants are accentuated in the direction identified in 2009, with the high distinction of shopkeepers, relatively to the choice of different elements (*Increase of prices and Slump of consumption*) and the way to put them together in the reasoning about crisis. This way, in particular, discriminating from more schematic and more connoted representations, marks a distinction between expert/non expert knowledge that seems to suggest an association between expertise and schematization of reasoning. The evolution in 2012 of the analyzed SRec is testified by the appearing of new elements in the central core, the *Uncertainty for future*, but also by an increase differentiation among social categories and between expert/non expert people.

In regards to a more specific comparison between Italian and Greek's social representations of crisis, it is worth noticing that the main elements are common, but some differences can also be found in the meaning of some elements or in the particular use of them, as it happens in the case of *Austerity measures and Decadency*.

Table 19

Multidimensional Similitude Analysis graphs' legenda

Data typology	Analytical categories
Causal attributions	
CAU27	*Corrupt, dishonest and unable to govern politicians*
CAU32	*Uncontrolled loaning by banks*
CAU42	*Financial speculation and the immediate profits desire*
Daily life changes	
DC01	*I have become more prudent, reflexive and I keep more informed*
DC02	*My relation with money has changed*
DC05	*I can't do anymore what I used to do before: holidays, going out, restaurants*
DC07	*I feel anxious and future anguishes me*
DC08	*I buy only less expensive and essential things*
DC10	*My professional situation worsened*
Hypothetical solutions	
SOL44	*Tax and imposts reduction*
SOL50	*More equitable wealth distribution*
SOL51	*Election of more proper and capable politicians*
SOL55	*Fight against tax evasion and proper management of taxation*
Coping strategies	
STR12	*I keep more informed about politics, economics and finance*
STR13	*I wait market will find its equilibrium*
STR14	*I keep engaged in my work, I work overtime*
STR21	*I buy low quality brands products*
STR23	*I find alternative ways of having fun*
STR24	*I had to change my values priority order*

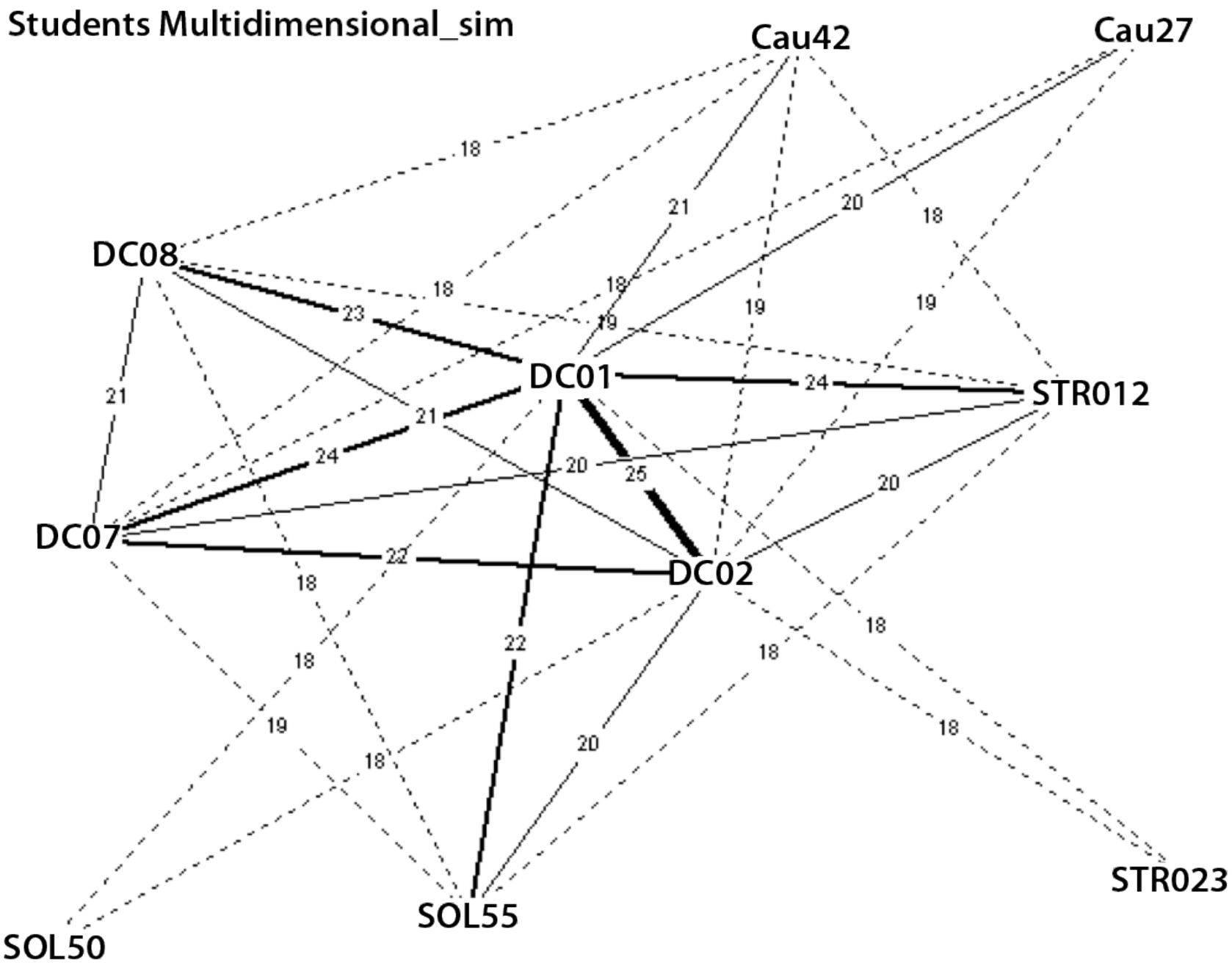

Figure 1
Italian students multidimensional similitude graph: Co-occurrence criterion (Thresholds: 18).

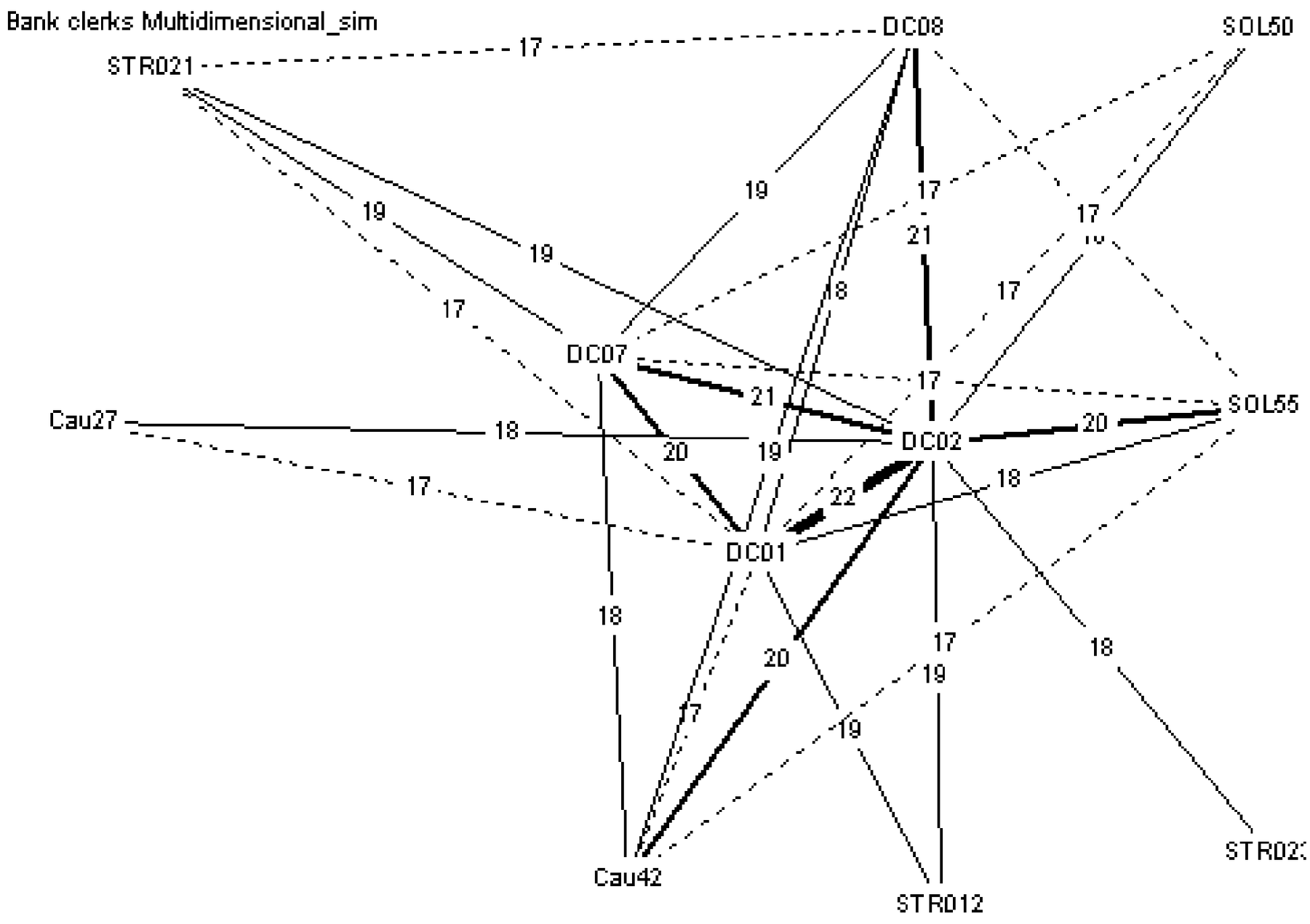

Figure 2
Italian bank clerks multidimensional similitude graph: Co-occurrence criterion (Thresholds: 17)

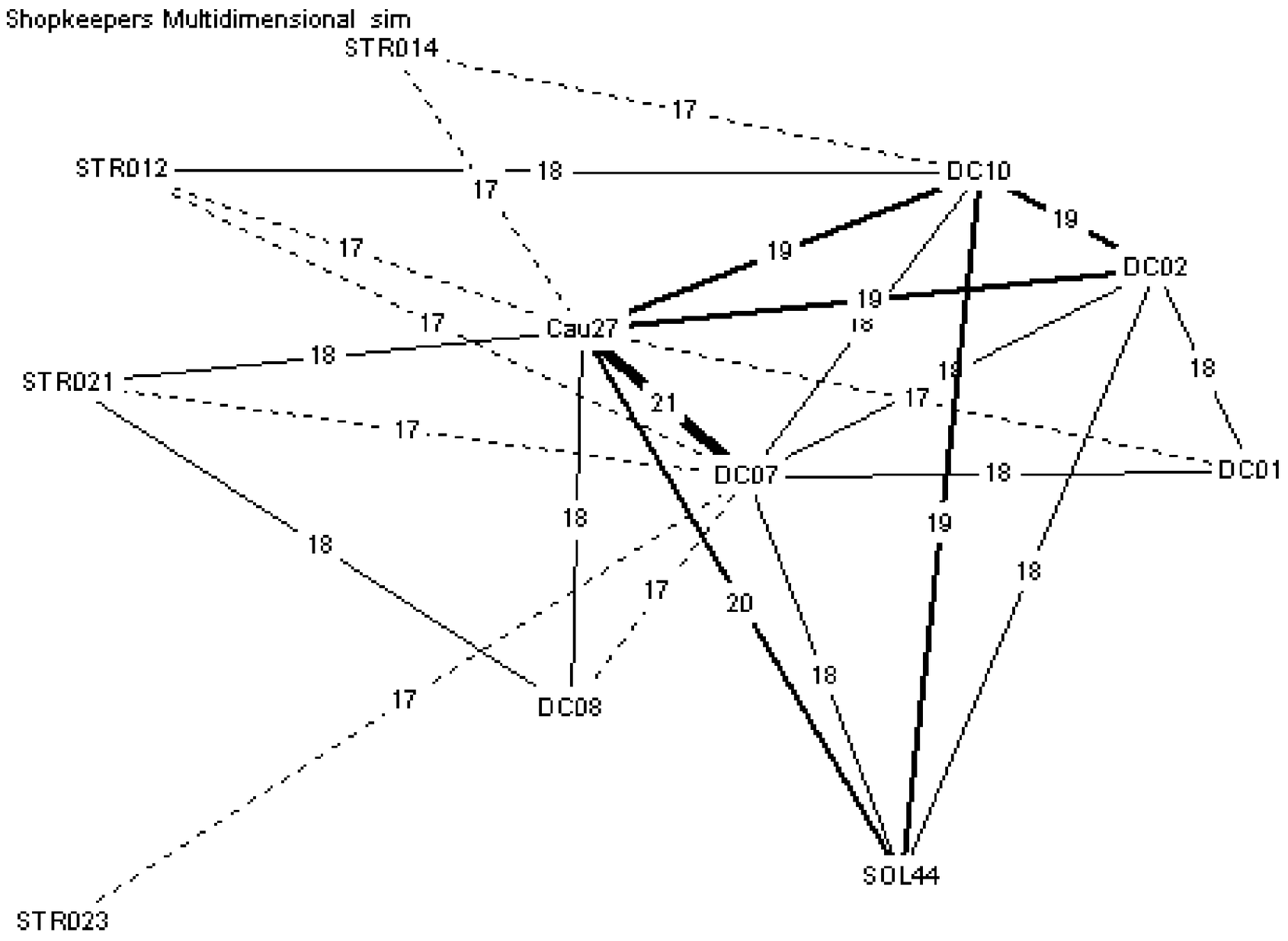

Figure 3
Italian shopkeepers multidimensional similitude graph: Co-occurrence criterion (Thresholds: 17)

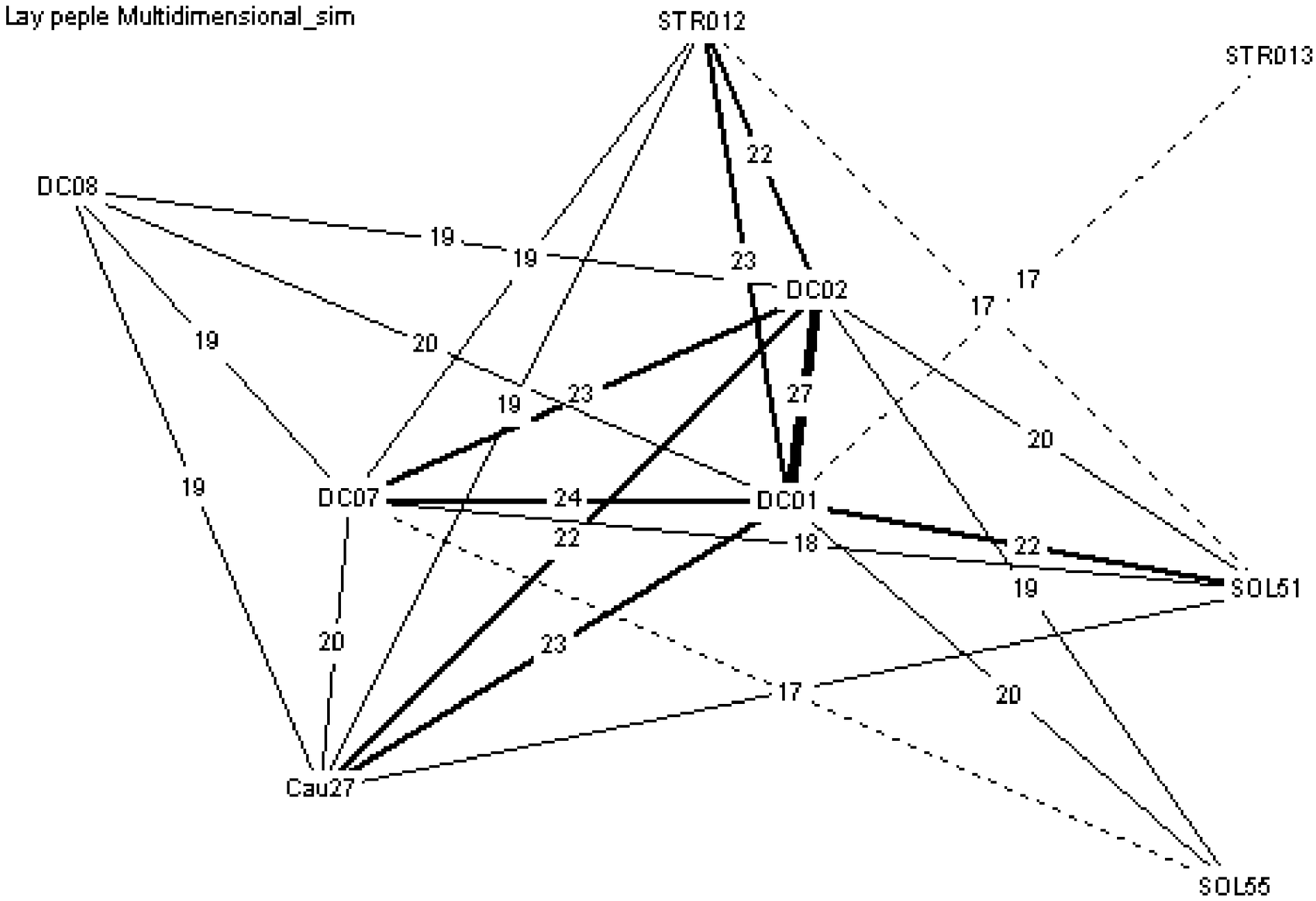

Figure 4
Italian laypeople multidimensional similitude graph: Co-occurrence criterion (Thresholds: 17)

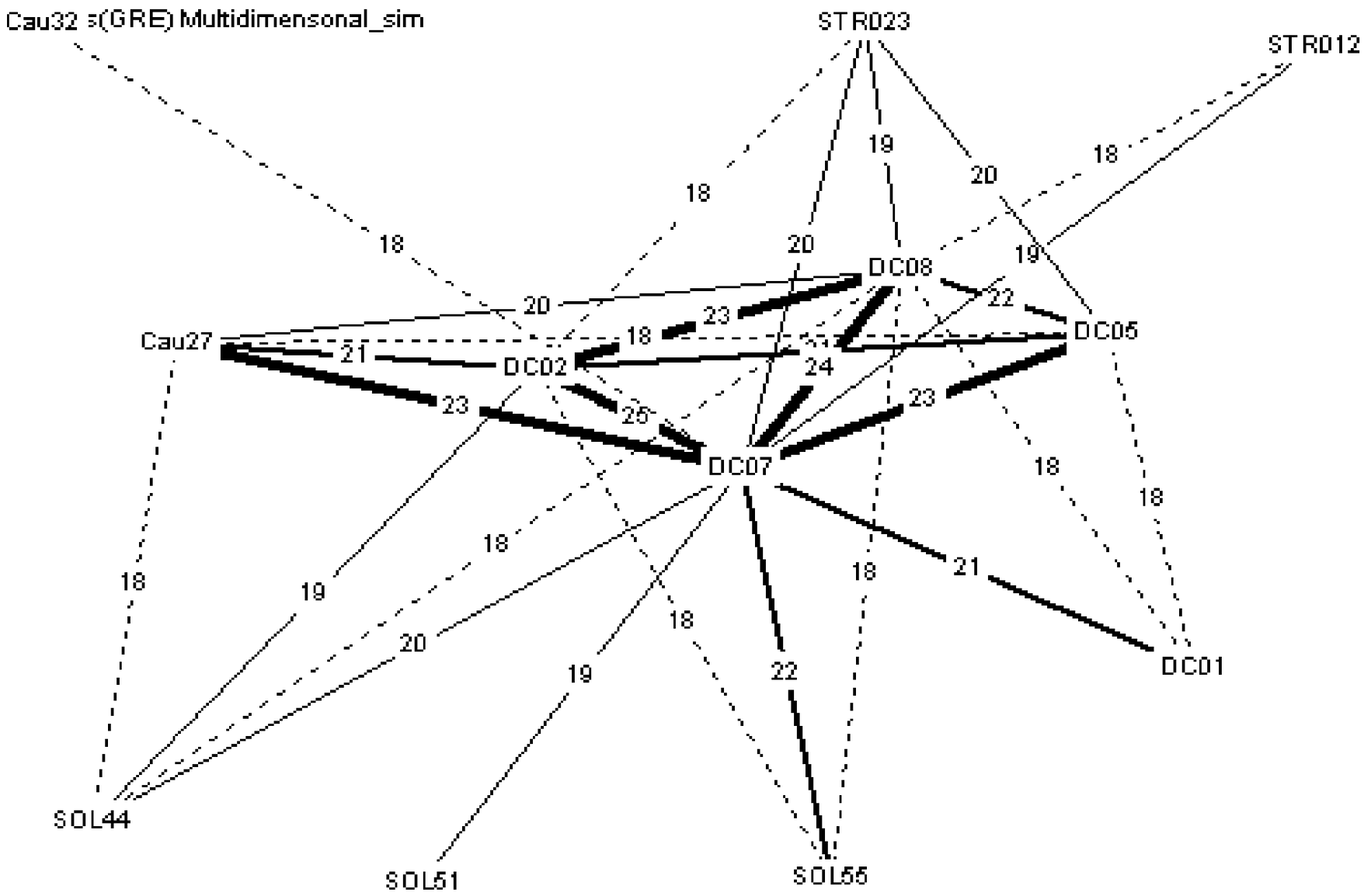

Figure 5
Greek students multidimensional similitude graph: Co-occurrence criterion (Thresholds: 18)

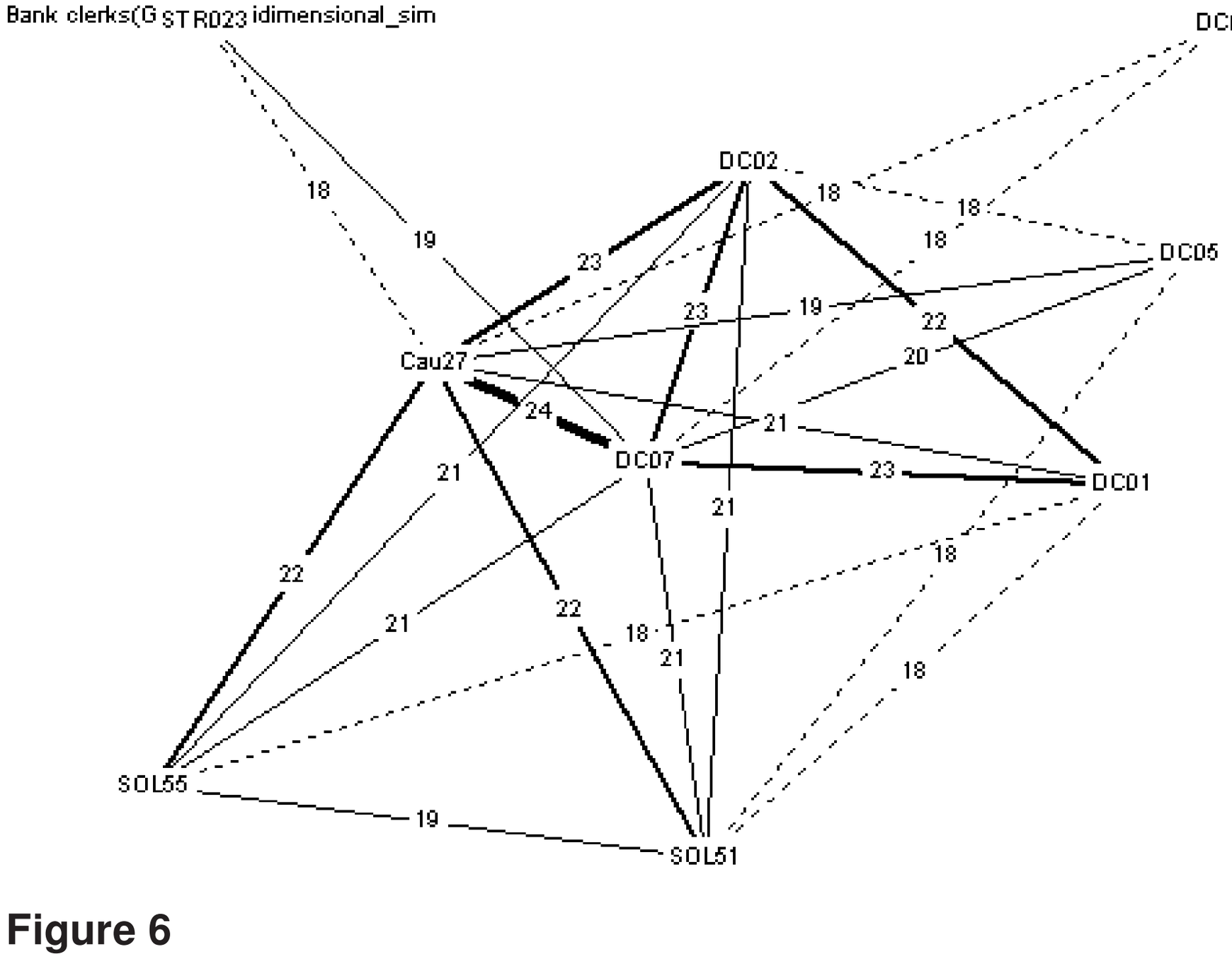

Figure 6
Greek bank clerks multidimensional similitude graph: Co-occurrence criterion (Thresholds: 18)

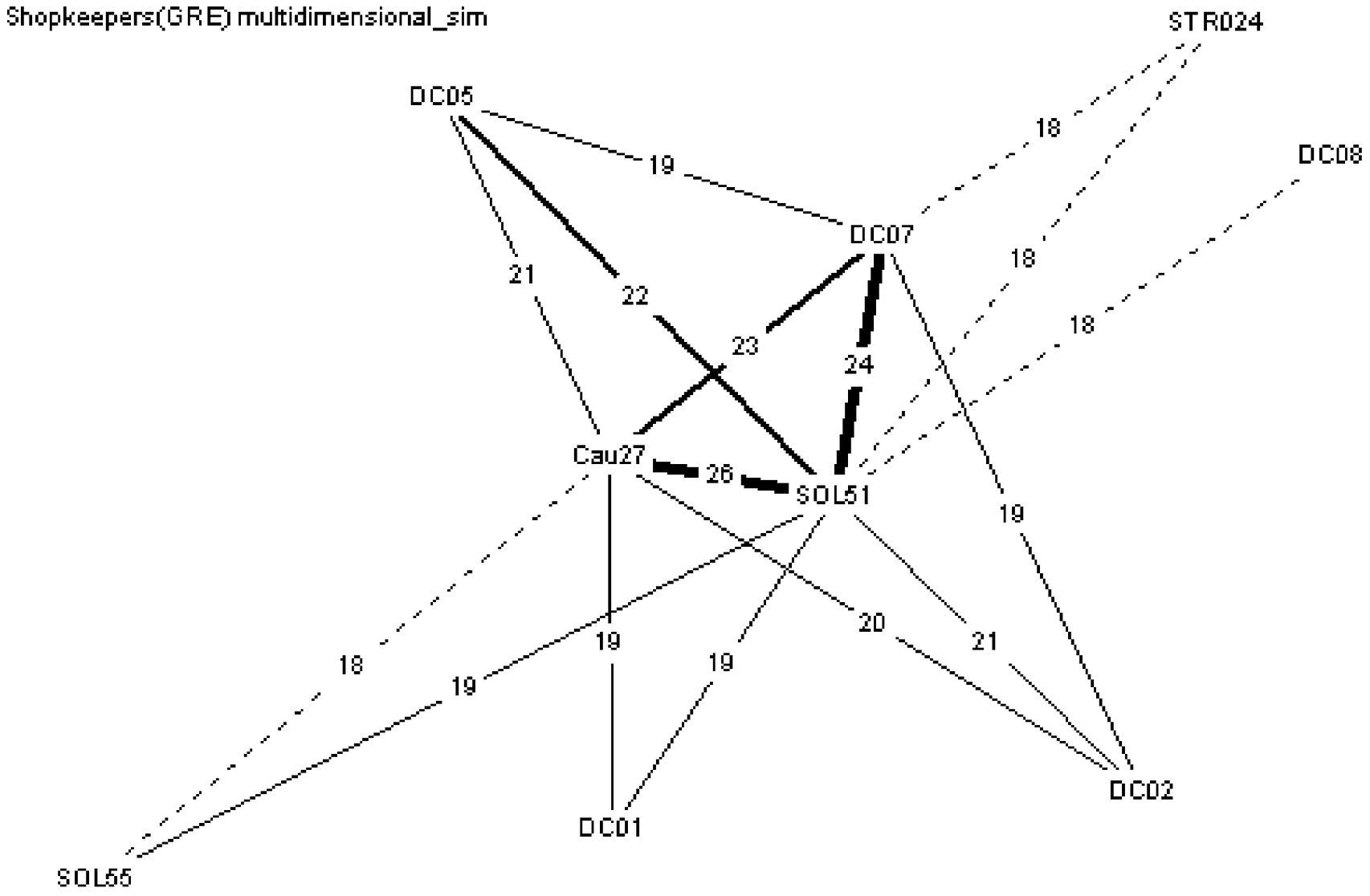

Figure 7
Greek shopkeepers multidimensional similitude graph: Co-occurrence criterion (Thresholds: 18)

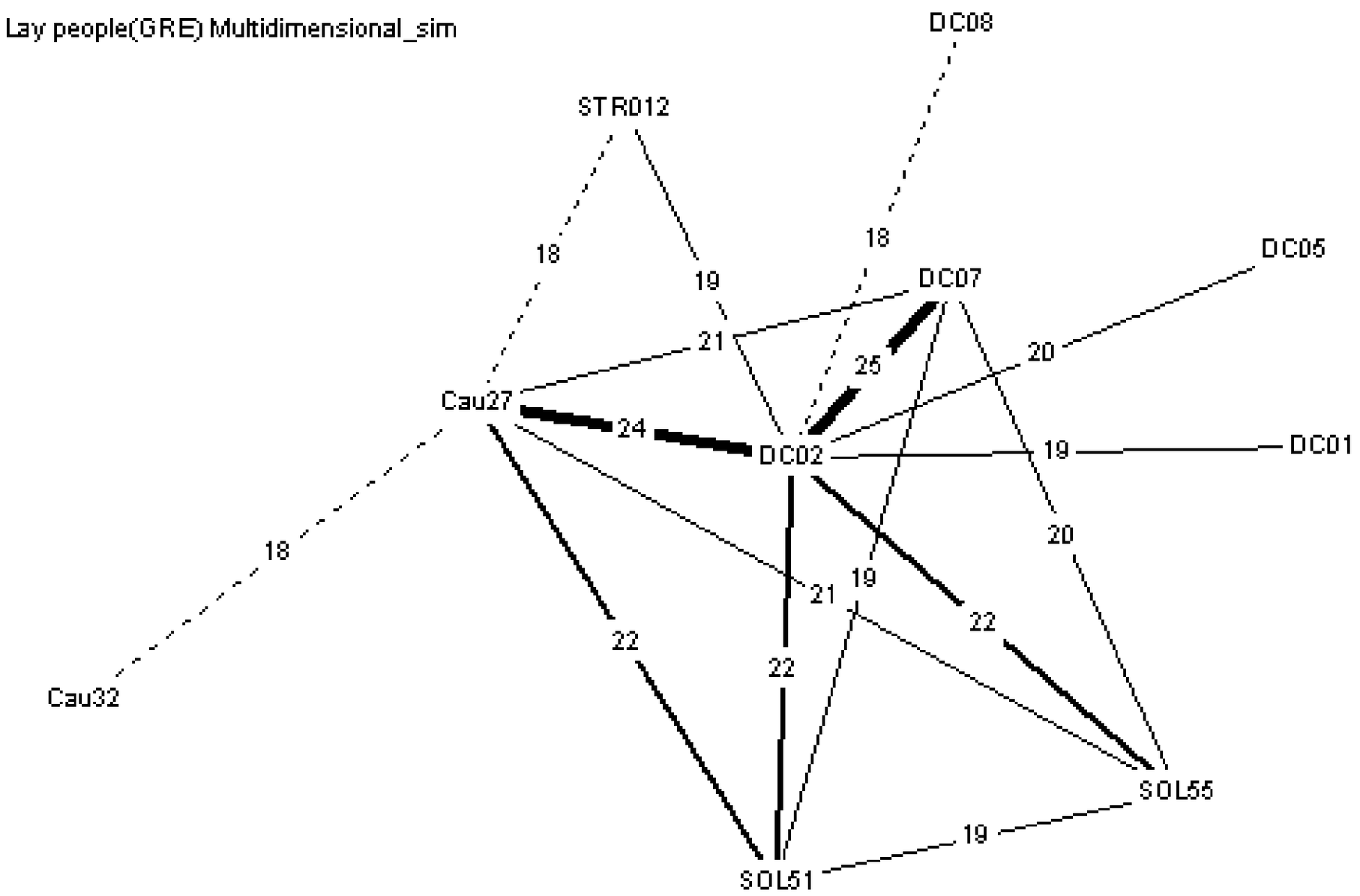

Figure 8
Greek laypeople multidimensional similitude graph: Co-occurrence criterion (Thresholds: 18).

The Multidimensional Similarity Analysis shows in which way the vision of crisis is more schematized and differentiated for Italian than for Greek participants. Among these interviewees, in particular, *Job loss* remains undeniably a central and a stable part of the SRec. The study of representational content and organization of the four Greek groups SRec's, allows to identify two approaches to the crisis: *an emotional-fatalistic approach*, shared particularly by lay people and shopkeepers, and a *theoretical-expert*

approach mainly expressed by the students. These results confirm those of 2009. The group of shopkeepers was the most emotionally involved while the group of students was the least. The group of bank employees expressed an intermediate position. These results allow us to conclude that, despite the change of keywords, the conceptual axes remain the same over time for the studied groups. This is probably due to the impact that the crisis has had on the social practices rather than on ways of thinking about the problem. In 2009 students and laypeople thought that in their daily life *anything has changed* (36,67% of students and 30% of laypeople) while bank clerks avoided *unnecessary expenses* (26,67%) and *gave more attention to costs* (16,67%). Shopkeepers, instead, were *more and more worried* (36,67%).

This sense of anxiety, in 2012, mostly affects bank clerks (30%), who answer "*I feel anxious and future anguishes me*", as well as students (33,33%), while shopkeepers and laypeople, as well as students, affirm mainly to *have become more prudent, reflective and to remain informed* (40%; 53%; 40%).

Also *the relation with money* appears to be changed for bank clerks (20%), shopkeepers (23%) and laypeople (16%). So, in 2012, our participants appear to be more worried and more reflective in their daily life. The differences are significant in 2012 (χ^2 = 41,378; p = 0,022) with a low level of association (V= 339; p = 0,022).

Discussion and Conclusions

"Crisis does not exist" was the mantra of every mass-mediatic and political discourse at the beginning of the phenomenon. "Job loss is the nightmare of our times", is the mantra of every public and private discourse, expressly related or not to crisis, in our daily life. "Austerity as the answer" provoked the most serious slump of the economics and politics credibility, since 1929. Recessive policies, in fact, haven't limited the general world collapse and the terrible consequences for common people, so ironically related to an "excel error" (Krugman, 2012).

In this scenario, the aim of this research was to explore this evolution towards the *naïve theories* of different categories of people in the two different stages of the crisis (2008, 2012) and in different countries. How common, real people, with different kinds of expertise about economics and politics, based on their daily professional and cultural environment, interpret and construct a coherent representation of such a complex event? Which are the differences in these social representations between the two periods of the crisis?

Despite the intention of the media mantras, common people always create their own theories to understand a new, unfamiliar and threatening phenomenon, through social communication. Since 2009, as evidenced in our data, it was clear that the financial explanation of crisis that politics tried to diffuse was never completely accepted, but it was reworked in theories more pertinent to the reality of participants of this research. Before the media discourse arrived to the conclusion that *Job loss is the nowadays night-*

mare, it was already the core of our participants social representations. Laypeople, as shown in other researches, also seem to focus on unemployment when they think about the crisis and differ in their notions of the crisis depending on whether they are afraid or unafraid of its consequences (Roland-Lévy, Pappalardo Boumelki, & Guillet, 2010). Nevertheless, in 2012, the most shared and important part of participants' representations, anticipated again the forthcoming mantra: *Future is the nightmare of our century*. As it appears from central cores, Uncertainty, fear of future, is the new, almost omnipresent element, which characterizes both Italian and Greek social representations. *This Uncertainty, fear of future* is not a "metaphysical fear" or something linked to the future perspective of the modern man. More implicitly or explicitly linked to *Job loss*, it represents the putting into question of a configuration of hopes and certainties involves an obligatory identity reconstruction. Losing a job does not mean to lose just a way to gain money to survive, but it means to lose the way to place self-identity in the world and the power to plan the future (Strangleman, 2012).

As shown by Roland-Lévy (1996), among others, the relationship between representations and behaviour is not unilaterally causal. Also in this case, social representations determine behaviour, but are interdependently modified by behaviour.

A methodological reflection can be done too. The use of motivation in the questionnaire of evocation gave us the possibility to clearly understand the meaning of each associated term: i) when the term should suggest other meanings; ii) in the case the evoked term seems to be completely unrelated to the inductor term; iii) in case of a term used in a double/opposite meaning; iv) to understand the articulation of reasoning behind the evocation of a term; v) when the justification gives the possibility to link the term not to a general state of society, but to a specific part of it.

The use of Questionnaire of Characterization gave us the possibility to identify a central element, *Uncertainty, fear of future*, which was not freely evoked by our participants. This information was extremely useful to better qualify the central core of our SRec's structures but at the same time to confirm their superimposability. Consequently, the integration of Hierarchized Evocations and Questionnaire of Characterization allows highlighting the centrality of elements that could be not spontaneously evoke as central and, at the same time, of elements not provided by the researcher.

The same remarks can be made for the chosen set of analysis. If Similarity Analysis is generally used to catch the associative value of central elements but, in particular, to have a major view on the connection that make the reasoning of people. It is also evident that the Multidimensional Similarity Analysis gives the additional opportunity to have a snapshot of the connections among different kinds of elements that means, in other words, to re-construct the whole naïve theories circulating in a specific context.

References

Abric, J.-C. (1994a). *Pratiques sociales et représentations*. Paris : Presses Universitaires de France.

Abric, J.-C. (2003). La recherche du noyau central et de la zone muette des représentations sociales. In J-C. Abric (Ed.), *Méthodes d'étude des représentations sociales*, (pp. 59-80). Ramonville Saint-Agne : Érès.

Abric, J.C., & Vergès, P. (1994). Les représentations sociales de la banque. *Etudes et recherches du Gifresh*, 26.

Bardin, L. (2003). L'analyse de contenu et de la forme de communications. In S. Moscovici & F. Buschini (Eds.). *Les méthodes des sciences humaines*, (pp. 243-269). Paris : Presses Universitaires de France.

Dany L., & Abric J. C. (2007). Distance à l'objet et représentations du cannabis, *Revue Internationale de Psychologie Sociale, 20* (3), 77-104.

Farr, R.M., & Moscovici, S. (Eds.) (1984). *Social Representations*. Cambridge, United Kingdom: Cambridge University Press.

asanelli R., Galli I. & Sommella D. (2005). *Professione caregiver. Studio delle relazioni tra pratiche assistenziali e rappresentazioni sociali della malattia di Alzheimer*. Napoli: Liguori.

Flament, C. (1962). L'analyse de similitude. *Cahiers du Centre de Recherche Opérationnelle, 4*, 63-97.

Flament, C. (1994a). Structure et dynamique des représentations sociales. In D. Jodelet (Ed.), *Les représentations sociales* (p. 204-219). Paris : Presses Universitaires de France.

Flament, C. (1994b). Structure, dynamique et transformation des représentations sociales. In J.-C. Abric (Ed.), *Pratiques sociales et représentations*, (pp. 37-57). Paris : Presses Universitaires de France.

FGalli I., Markova I., Bouriche B., Fasanelli R., Geka M., Iacob L., & Iacob G. (2010). La représentation sociale de la crise économique dans quatre pays européens. *Les Cahiers Internationaux de Psychologie Sociale, 87* (3), 585-620.

Guimelli, C. (Ed.) (1994). *Structures et transformations des représentations sociales*. Lausanne : Delachaux et Niestlé.

Kirchler, E. (2007). *The Economic Psychology of Tax Behaviour.* New York: Cambridge University Press.

Krugman, P. (2012). *Fuori da questa crisi, adesso*! Milano: Garzanti

Moscovici, S. (1961). *La psychanalyse son image et son public*. Paris : Presses Universitaires de France.

Moscovici, S. (1984). The myth of the lonely paradigm: A rejoinder. *Social Research, 51*,939-968.

Moscovici, S. (1986). Editoriale. *Psicologia e Società, 1*, 3-4.

Moscovici, S. (1988). Notes towards a description of Social Representations. *European Journal of Social Psychology, 18*, 211-250.

Puaschunder, J. M., (2012). *On the Social Representations of Intergenerational Equity.* Retrieved December 4 from SSRN: http://ssrn.com/abstract=2011359 or http://dx.doi.org/10.2139/ssrn.2011359.

Roland-Lévy, C. (1996). Comportements financiers et représentations sociales. *Cahiers du GRATICE, Revenus, Consommation, Epargne, 10,* 65–92.

Roland-Lévy, C., & Adair, P. (Eds.). Psychologie Economique : Théories et Applications. Paris: Economica.

Roland-Lévy, C., Pappalardo Boumelki, F.E., & Guillet, E. (2010). Representation of the financial crisis. Effect on social representations of savings and credit. *The Journal of Socio-Economics, 39*, 142–149.

Strangleman, T. (2012). Work Identity in Crisis? Rethinking the Problem of Attachment and Loss at Work. *Sociology, 46*(3), 411-425.

Vergès, P. (1992). L'Evocation de l'argent : Une méthode pour la définition du noyau central d'une représentation. *Bulletin de Psychologie, 45* (405), 203-209.

Vergès, P. (1994a). Les représentations sociales de l'économie : une forme de connaissance. In D. Jodelet (Ed.), *Les représentations sociales* (p. 387-405). Paris : Presses Universitaires de France (1re éd. 1989).

Vergès, P. (1994b). Approche du noyau central : propriétés quantitatives et structurales. In C. Guimelli (Ed.), *Structures et transformations des représentations sociales* (p. 233-253). Lausanne : Delachaux et Niestlé.

Vergès, P. (1995). Représentations sociales partagées, périphériques, indifférentes, d'une minorité: méthodes d'approche. *Les cahiers internationaux de psychologie sociale, 28*, 77-95.

Vergès, P., & Bouriche, B. (2009). *L'analyse des données par les graphes de similitude*. Retrieved June 3, 2011, from http://www.scienceshumaines.com/methodes-quantitatives-pour-les-sciences-sociales_fr_15151.html

Vergès, P., & Bastounis, M. (2001). Towards the Investigation of Social Representations of the Economy: Research Methods and Techniques. In C. Roland-Lévy, E. Kirchler, E. Penz, & C. Gray, (Eds.) *Everyday Representations of the Economy* (pp. 19-48). Wien: WUV|Universitatsverlag.

Zappalà, S. (2001). Social representations of Economics across Cultures. In C. Roland-Lévy, E. Kirchler, E. Penz, & C. Gray (Eds.), *Everyday representations of the Economy* (pp. 183-203). Wien: WUV|Universitatsverlag.