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BETWEEN THE REPRESENTATION OF THE CRISIS AND THE CRISIS OF REPRESENTATION

TR SYNCHRONIC ANALYSIS

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1. THE REPORT IN A NUTSHELL

Core theme	This document presents the framework, aims, methodology and findings of the part of the Re.Cri.Re. WP3 devoted to the analysis of the current state of the cultural context of European societies
Key terms	*Symbolic universe.* A system of generalized meanings embedded within the cultural milieu and working as affect-laden worldview shaping the lived experience of the person identified with it. *Cultural milieu.* The culture milieu is the social arena where people communicate, act, think and experience life and in so doing reproduce and elaborate symbolic universes. The cultural milieu consists of a plurality of symbolic universes; each of them emerging as a particular interpretation of the cultural milieu.
How to read it	The presentation is organised in different levels. The main text reports the main elements; boxes give more depth on core theoretical and methodological aspects; notes play the same function as boxes, yet concerning more specific technical aspects. The Glossary provides the definition of the key terms used.
Table of contents	1. The report in a nutshell 2. Purpose and aims of synchronic analysis 3. General framework 4. PART I. The MAP of symbolic universes 5. PART II. psychological and Socio-ecological characterization of symbolic universes 6. PART III. The enactment of the symbolic universes 7. PART IV. The analysis of the social representation of relevant topics 8. Summary 9. References 10. Notes
Aims	A) identify the symbolic universes and the cultural milieu they are embedded in as well as their incidence within the European societies; B) analyse the relation of the symbolic universes with both psychological and (broadly speaking) socio-ecological characteristics of the population; C) analyse how the symbolic universes express themselves in the embodied dimension of lived experience as well as in way of feeling, thinking and acting; D) analyse how the symbolic universes find expression in the way of representing social objects relevant to identity (immigration, Islam, homosexuality, health, participation, and subjectivity) in public opinion.
Areas of investigation	<u>A1.The map of symbolic universes</u> This area of investigation is designed to map the symbolic universes characterizing the European Societies and their incidence within European societies. This was done by means of a multiple-choice questionnaire developed ad hoc The analysis focused on a sample of territories encompassing a set of European counties distributed over the whole European space (Cyprus, Denmark Estonia, France, Germany, Greece, Italy, Malta, Netherlands, Spain, UK). <u>A2.Socio-ecological and psychological correlates of symbolic universes</u>

	This area aims to estimate the relation of the symbolic universes with: - higher mental functions (e.g. ways of thinking); - socio-economic factors (e.g. rate of unemployment) - the results at the Brexit referendum A3. The microanalysis of the enactment of symbolic universes This area is aimed at detecting how symbolic universes work in situ, namely how they are expressed in terms of embodied patterns of bodily activation. A4. The analysis of the representational structure of topics in media contexts This area is designed to map how some major topics (participation, health, homosexuality, Islam, immigration, and subjectivity) - chosen for their relevance for European identity - are represented at the level of media (more particularly, in national and local newspapers) over several European countries, and to analyse how and to what extent such representations can be interpreted as enactment of more general symbolic universes.
Linkage with other WPs	The output of the latter analysis is complemented by the diachronic analysis – task 3.2 - aimed at analysing the retrospective evolution of the representational structures (cf. Deliverable 3.3). The outputs of the synchronic universes is functional to *WP4-Case Studies for policies*. They frame the study of how different policies have been organized and how their impact might or might not have been moderated by the symbolic universes at stake. Moreover, the output of the synchronic analysis, integrated with the output of diachronic analyses and WP4 analysis will be the frame of the WP5 actions, aimed at elaborating guidelines for policy (*WP5- Guidelines Design).*
Framework	Synchronic analysis adopts the *Semiotic-Cultural Psychology Theory* (SCPT) as theoretical and methodological framework. SCPT is a specific interpretation of a more general view (cognitive paradigm), which highlights the essential role played by mental processes in shaping social, psychological and behavioural processes as well as their relation.
Main findings	1. Some components of the cultural milieu (cf. § 4) appear to work as cultural resources (i.e. semiotic capital) for socio-economic and civic development as well as for European cohesion: • There is an association between high rate of unemployment and incidence of the anomic form of sensemaking connoting the experience in terms of unreliableness, fatalism, lack of agency. • UK regions where the proportion of leave votes at the recent Brexit referendum was higher were differentiated from the regions with lower levels of leave votes due to a combination of cultural markers, as defined by the map of the symbolic universes. • People identified with the symbolic universes regarded as cultural resource (*ordered universes and caring society*) are characterized by functional forms of thinking (risk propensity, flexibility), openness to experience, commitment to relating, positive feelings, valorisation of otherness. • From a complementary standpoint, these symbolic universes are characterized by a explorative attitude, as showed by how they distribute embodied attentional resources in viewing a politically significant image.

	2. Symbolic universes associated with positive psychological and sociological and developmental conditions (*ordered universe* and *caring society*) are characterized by the combination of two aspects: on the one hand, the willingness to enter constructive relationships with the world (e.g. trust in the future and institutions, commitment to rules and civic participation); on the other hand, the recognition that life goes beyond the situated, lived experience since it is part of a higher-order, abstract – systemic – context, which constrains lived experience and at the same time provides it with sense and perspective. 3. On the other hand, semiotic capital is rather scarce and European societies are affected by quite a serious incidence of anomy. More than 40% of the European sample (though with major differences among countries) is identified with worldviews (*symbolic universes*, according to the terminology adopted) connoting experience in terms of impotence, lack of sense, defensive use of belongingness. 4. The symbolic universes and more in general the basic semiotic structures substantiating the cultural milieu are also salient at the level of how relevant topics are addressed by the media: the more the topic implies an emotional demand of identity (in particular: Islam, Homosexuality and Migration), the more its representational structure is similar to that of the general cultural milieu.
Implications and expected impact	Knowledge of cultural characteristics provides a precious source of information for understanding psycho-social and social phenomena and the way of dealing with them.

2. PURPOSE AND AIMS OF SYNCHRONIC ANALYSIS

This document presents the framework, aims, methodology and findings of the part of the Re.Cri.Re. WP3 devoted to the analysis of the systems of meanings (henceforth: symbolic universes) grounding the forms of social identity characterizing current European societies (synchronic analysis, according to the Re.Cri.Re. terms).

After an introductory section outlining the theoretical framework of the whole synchronic analysis, the method and findings of each area of investigation are presented.

The presentation is organised in different levels of detail. The main text reports essential elements; the boxes examine in depth the core theoretical and methodological aspects; the notes play the same role as boxes, but concern more specific technical aspects. The Glossary provides the definition of the key terms used.

2.1. Aims

Synchronic analysis intends to:

A. identify symbolic universes and their cultural milieu as well as their incidence in European societies;
B. analyse the way symbolic universes are related to both the psychological and (broadly speaking) socio-ecological characteristics of population;
C. analyse how symbolic universes are expressed in the embodied dimension of lived experience as well as in ways of feeling, thinking and acting;
D. analyse how symbolic universes find expression in the way social objects relevant to identity (immigration, Islam, homosexuality, health, participation, and subjectivity) are represented in public opinion.

To this end, synchronic analysis is divided into lines of investigation, each of them aimed at a specific goal of empirical analysis.

1. To map both the content and the semiotic structure of symbolic universes.
2. To analyse with which different higher mental functions (e.g. way of feeling, thinking, planning; forms and processes of memory; logical structures of reasoning, locus of control) symbolic universes are associated.
3. To analyse how symbolic universes shape individual experience, attitudes and actions in the circumstances of daily life.
4. To analyse how symbolic universes are enacted in the ways some social objects, relevant to European cohesion (immigration, Islam, homosexuality, health and wellbeing, participation, and subjectivity), are represented at the level of public opinion.
5. To estimate the incidence of symbolic universes within (some) local territories of European countries.
6. To estimate the relation of symbolic universes with important socio-economic phenomena (e.g. forms of social behaviour, characteristics of communities, consumption, economic activities).

2.2. The position of synchronic analysis within the WP3

Synchronic analysis is one of two complementary stages of analysis comprising the *WP3 Multilevel Analysis of symbolic universes*: the synchronic and diachronic analyses of symbolic universes.

Synchronic analysis is divided into 4 areas of investigation:

A1.The map of symbolic universes

This area of investigation corresponds to task WP3.1.a, which is aimed at mapping symbolic universes characterizing European societies and their incidence within European societies. This is

done by means of a multiple-choice questionnaire developed ad hoc on the basis of previous studies and translated into the different languages of the sites sampled. The analysis is designed to identify patterns of answers that can be interpreted as markers of the corresponding symbolic universes.

A2.Socio-ecological and psychological correlates of symbolic universes
This area corresponds to the first part of task WP3.1.b, which is aimed at assessing the relation of symbolic universes with:
- the way higher mental functions (e.g. ways of feelings, thinking, planning) work;
- the (broadly speaking) socio-ecological phenomena (e.g. forms of social behaviour, functioning of institutions, characteristics of communities, consumption, economic activities).
The analysis is based, on the one hand, on a set of indicators of psychological functions (e.g. affective activation, memory, cognitive styles, locus of control) and, on the other hand, on a set of socio-cultural (e.g. forms of social communication; cultural consumption; forms of civic commitment; family size), ecological (e.g. level of pollution), economic (e.g. employment rates, economic activities, levels of saving) indicators. The analysis is aimed at identifying socio-ecological and psychological correlates with the symbolic universes obtained from task 3.1.a and at assessing the strength and direction of such associations.

A3. The microanalysis of the enactment of symbolic universes
This area corresponds to task WP3.1.c, which is aimed at detecting if and how symbolic universes affect the embodied dimension of lived experience.

A4.The analysis of the representational structure of topics in media contexts
This area concerns the first of the two parts of task WP3.2. It is designed to map how some topics (participation, health, homosexuality, Islam, immigration, and subjectivity - chosen for their relevance to European identity) are represented at the level of the media (more particularly, in national and local newspapers) over several European countries, and to analyse how and to what extent such representations can be interpreted as the enactment of the more general symbolic universes identified in task 3.1.a.
The second part of task 3.2, aimed at analysing the retrospective evolution of the representational structures, is part of the diachronic analysis (cf. Deliverable 3.3)

The outputs of the synchronic universes is functional to *WP4-Case Studies for policies*. They frame the study of how different policies were organized and how their impact might or might not have been moderated by the symbolic universes at stake.
Moreover, the output of the synchronic analysis, integrated with the output of diachronic analyses and WP4 analysis will be the frame for WP5 actions, aimed at elaborating guidelines for policy (*WP5- Guidelines Design).*

3. GENERAL FRAMEWORK

Synchronic analysis adopts the *Semiotic-Cultural Psychology theory* (SCPT;cf. Box 1) as its theoretical and methodological framework. SCPT is a specific interpretation of a more general view (henceforth: *cognitive paradigm*), which highlights the essential role that mental processes play in shaping social, psychological and behavioural processes as well as the way they are related to each other.
This section presents SCPT briefly.The first part refers to the prevailing paradigm in the social sciences, compared to which the cognitive paradigm – presented in the second part – is an innovative proposal. The third part outlines the Semiotic-Cultural Psychological Theory.The fourth part highlights the relevance of SCPT to policy.

3.1. The prevailing paradigm in social science

The majority of social scientists assume that people think, make choices and act as a function of:

a) objective characteristics of the world (tenet of realism)
b) universal abstract rules (tenet of rational choice)
c) the maximization of utility (tenet of utility)[1].

One can provide a great many instances of policies based, more or less implicitly, on these assumptions. For instance, as regards development policies, they are intended essentially to supply resources (monetary incentives, technologies, information, credit) that people in low - and middle - income economies need (World Bank, 2015). This view presupposes that the lack of development is attributable to a scarcity of resources (tenet of realism). According to this perspective, the entry of resources would guide their use in the expected direction (tenet of rational choice), insofar as people and local communities would be naturally inclined to improve their living conditions (tenet of utility).

An example of this kind of logic is provided by the European cohesion policy, which is designed to reduce the gap between different regions, supporting the less favoured ones, with particular attention to post-industrial areas. In these regions it is planned to inject a considerable amount of money (in total, in the period from 2014 to 2020, it will account for an expenditure of 351.8 billion Euros) in order to create jobs, improve competitiveness of enterprises, promote economic growth and sustainable development and improve the citizens' quality of life. In order to access funds, beneficiaries have to meet specific prerequisites. This was based on the idea that the policy's effectiveness increases by introducing constraints on the behaviour of beneficiaries which in this way will be normatively oriented to follow the virtuous direction intended by the policy, in order to have access to available funds. On the other hand, this idea implies that beneficiaries will regard the constraints as the policy intended them (tenet of realism) and approach them following the logic one can expect from a rational decision maker (tenets of rational choice) aimed at maximizing one's advantage (tenet of utility).

All over the world, campaigns against smoking play a central role in health programs. A considerable number of the policies in this field are carried out by means of information campaigns designed to discourage tobacco consumption by highlighting the damage associated with it (for instance: alarming messages on cigarette packets). Now, one can see that this risk prevention strategy implies the idea that one's health is considered a self-evident, objective value for everyone – or at least for all normal people (tenet of realism). Accordingly, risky behaviours like smoking can only be due to lack of information and they are expected to diminish when people are informed (tenet of rational choice), given that people cannot but want to improve their health and are prepared to put effort into doing so (tenet of utility).

The final point considered is the policy designed to counteract the underground economy. In order to reduce this phenomenon, policies are mainly oriented to deregulation of the labour market in

[1]. For instance: Coleman (1990) claims that the micro-study of rational choice is the foundation of the macro-level analysis of social structures. In economics, according to the Arrow-Debreu model (Arrow & Debreu, 1954) in the market economy, if certain hypotheses and conditions are satisfied (i.e. the convexity of preferences, perfect competition and the autonomy of demand), a series of prices will be introduced so that the aggregate offer will match the aggregate demand for each item. Some sociological theories of crime (e.g. Cohen, Felson, 1979) consider it an activity that depends on the opportunities available. The less protected the target and the more advantageous the reward, the more likely it is that a crime will be committed. Finally, in the field of international political studies, Waltz (2010) outlines the neorealist approach, in terms of three principles: the centrality of the nation-state, the anarchy of the international context and the rationality and autonomy of political actors.

order to reduce labour costs (European Commission, 1998). Deregulation was expected to be an incentive to businesses to disinvest in underground activities, by reducing the cost differential between regular and non-regular systems and therefore making it less profitable to resort to the latter. This kind of policy, too, involves the idea that economic agents are maximizing individuals (tenet of utility) that decide on the basis of exogenous conditions (tenet of rational choice) which are interpreted by all in their objective, self-evident characteristics (tenet of realism).

3.2. The cognitive paradigm

The fundamental view of the cognitive paradigm is that choice and action are not the direct function of the inherent characteristics of the world, but of *how the latter is represented* (i.e.experienced and interpreted). This view can be summed up in three basic tenets:
i) the person does not experience the world directly, but experiences its cognitive (re)construction;[2] this means that mental processes mediate the relation between the person and the world (*tenet of the mediational role of cognition*);
ii) the cognitive (re)construction has autonomy – the mental processes comprising it do not fully depend on the inherent characteristics of the world, being regulated to a certain extent by inner rules (*tenet of the autonomy of cognition*);
iii) mental processes may vary in the way they work, due to the local circumstances where they operate (e.g. the social context and/or actor's aim and task) (*tenet of the situativeness of cognition*)

The tenets of the mediational role, autonomy and situativeness of cognition are based on a huge variety of theories, crossing the whole domain of the social sciences.[3] It can be seen that these tenets provide a different view from the prevailing paradigm. In fact, according to them:
I) People respond (i.e. have experience, find a solution to a problem, choose, act) to the meaning attributed to the reality, rather than to the objective characteristics of the latter.[4]
II) Mental processes through which the response is elaborated are to some extent contingent to circumstances, to how people represent (more or less implicitly) the context of choice, rather than following an invariant, universal abstract rule.[5]

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[2].Theories vary as to the view of this process as construction or reconstruction. The difference concerns the level of autonomy of the cognitive activity from reality (see point ii).

[3]. They can be tracked back in linguistics (e.g. Bühler, 1934/1990), philosophy (Peirce, 1897/1932; Wittgenstein, 1953), sociology (e.g. Berger & Luckmann, 1966; Boltanski, Thévenot, 1991; Bourdieu, 1972; 1979; Cicourel, 1974; Di Maggio, 1997; Zerubavel, 1999), economics (e.g. Basu, 2010; Hayec, 1967; Kahneman, 2003; Salvatore, Forges Davanzati, Potì & Ruggieri, 2009; Forges Davanzati & Salvatore, 2012), policy studies (Edelman, 1976; Hirschmann, 1970; 1977; Lindblom, 1965, March & Olsen, 1984; 1997), theory of organization (e.g. Feldman & March, 1981; Weich, 1995), urban studies (Crosta, 2006; Davoudi, 2015; Guidi, Fini & Salvatore 2012; Forester, 1984); socio-cultural psychology (e.g. Bruner, 1986; 1990; Cole, 1996; Moscovici, 1961; Valsiner, 2007, 2009; Vygotskij, 1934), anthropology (D'Andrade, 1987; 1992; Douglas, 1986; Douglas, Wildavsky, 1982; Geertz, 1983), psychoanalysis (Carli & Giovagnoli, 2011; Klein, 1976; Kirshner, 2010; Gill, 1994; Muller, 1996), community psychology (Mannarini, Ciavolino, Nitti & Salvatore, 2012), cross-cultural studies (Heine, 2011), geography (Massey, 1994; Amin, Thrift, 2002; Pollice, Spagnolo & Urso, 2013).

[4]. For instance, the classic studies by Bruner (Bruner & Goodman, 1947; Bruner & Postman, 1947; 1949) show that perception is not a passive response to an external stimulus, but an inferential process influenced by values, motivations and beliefs. The subject, while perceiving, makes a categorization in order to simplify reality by selecting, among the information available, the most consistent with their structures, values, needs, emotions and aspirations. Perception is therefore subjective since it is linked to past experiences, expectations about reality and the culture where one lives.

[5]. As many studies have shown (e.g. Kahneman 2003), people do not choose only in terms of the structure of the payoff; indeed, the same payoff can lead to different decisions depending on how it is presented, insofar as this presentation triggers different interpretations (e.g. people are more willing to accept "failed

III) Mental processes are not necessarily aimed at maximizing utility but are often motivated and regulated by other types of generalized meanings (e.g. mental models, social norms, social representations, values), available within the cultural environment, that work as motivational frameworks (e.g. the sense of belonging to a community).[6]

3.3. The Semiotic-Cultural Psychology theory (SCPT)

The Semiotic-Cultural Psychology Theory (SPCT) has developed over the last two decades (Valsiner, 1998; 2007, Salvatore, 2016) within the framework of socio-cultural psychology (Valsiner & Rosa, 2007). Such an approach integrates several lines of innovative theoretical and methodological thinking – interpersonal psychoanalysis (Mitchel, 1988; Salvatore & Zittoun, 2011), Dynamic Systems Theory (Salvatore & Tschacher, 2012; Lauro-Grotto et al 2009; Salvatore et al, 2009); pragmatic semiotics and discursive analysis (Linell, 2009), abductive reasoning (Salvatore & Valsiner, 2010).

SCPT shapes the more general cognitive paradigm in accordance to the view of mental processes:

a) in terms of *on-going dynamics of sensemaking* (i.e. processes of interpretation of the world that shapes experience),
b) *channelled by generalized meanings* embedded within the cultural milieu and working as affect-laden systems of assumptions (in the context of the Re.Cri.Re. project and henceforth these generalized meanings are named symbolic universes).

Figure 3.1 provides a visual description of the dynamics of sensemaking and of the role that generalized meanings play in shaping experience. Meaning is not attributed to contents of the world that exist before being interpreted (this view is illustrated by Figure 3.1a). Rather, sensemaking (the red and blue arrows in Figure 3.1a) makes up the reality; needless to say, it does not create the world, but shapes the way of experiencing it, namely of *presentifying* its reality to the mind (cf. Figure 3.1b)[7]. Thus, sensemaking makes up the actual content of the experience of both the outside and inside environment (i.e. the experience of one's body and feelings) and more in general, the image individuals have of themselves and of their relation with the context, therefore their social identity.

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to win" than "lost", despite the fact that the two contexts of choices express the same payoff). From a complementary standpoint, Gigerenzer has shown how people adopt a simplified – "fast and frugal" - way of reasoning (Gigerenzer & Tod, 1999), based on inferential automatisms learnt from local fields of experience; thus, the reasoning is a twofold variable – automatisms vary due to the local circumstances where they were learnt, and they are adopted in certain circumstances but not always, according to the way the actors interpret the latter.

[6]. An instance of this issue is provided by a field study carried out in Israel aimed at understanding the delay of parents in picking up their children from daycare centres at the end of the day. The initiative involved late parents paying a fee: this caused an increase in delays, not a reduction. The study demonstrated that parents interpreted the measure as a legitimization of their behaviour, rather than a punitive measure: by paying a price, they thought they were entitled to take liberties (Gneezy & Rustichini 2000). In terms of our discussion: money does not necessarily have the meaning of a cost (fee) to be avoided for the sake of maximizing utility; money can be interpreted – and this seems to be what the study documented – as the term of exchange that legitimizes the target action.To give another example, the practice of female genital mutilation is unexplainable within the framework of maximizing utility, whereas it becomes understandable once one recognizes that it is based on the socially-shared assumption that it increases fertility (Mackie 1996; WHO 1999).

[7]. This is so because the world is not a space holding self-contained objects that the mind represents and therefore interprets (Manzotti, 2010). Rather, the world is an on-going flow of occurrences and sensemaking is the process of foregrounding some of them (and backgrounding the others), in so doing enabling quite a stable frame of experience to emerge from the flow (Salvatore, 2013; 2016; Salvatore & Freda, 2011; Valsiner, 2007).

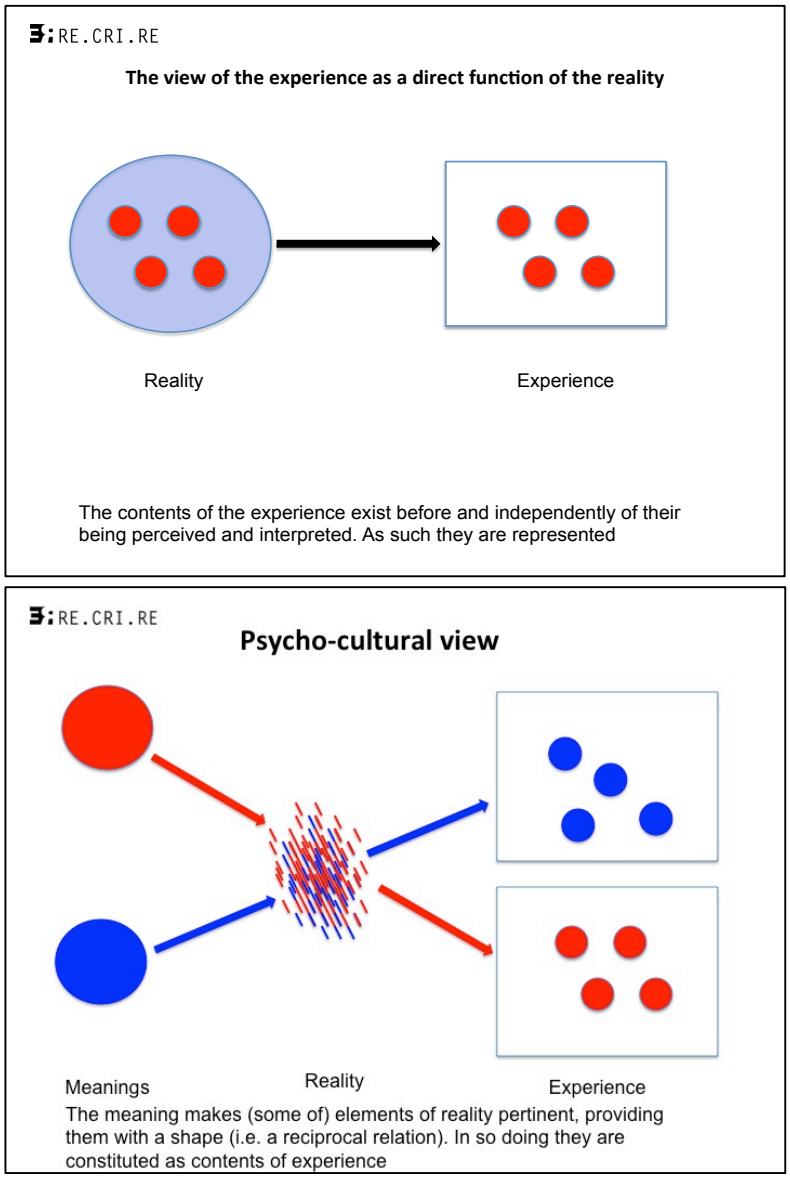

Figure 3.1. Two views of the relation between reality and experience

3.3.a. Culture and cultural variability

It is worth noting that this view does not dismiss intra-group and intra-psychological variability in the way of feeling, thinking and behaving. This is so because a cultural milieu does not consist of a single symbolic universe that is always the same for all members of that culture. Rather, a culture consists of a plurality of symbolic universes. Each symbolic universe emerges from the same culture, as a particular interpretation of it (Cobern & Aikenhead, 1997) - where each interpretation consists of making certain basic dimensions of culture salient and de-emphasising others.[8] Moreover, symbolic universes are distributed heterogeneously, namely they are active with different salience within the cultural milieu. From this it follows that individuals belonging to the same culture vary from each other due to the position they have within the cultural milieu - that is,

[8]. The fact that each symbolic universe emerges as a particular form of pertinentization of the same basic dimensions of the same culture implies that symbolic universes are not self-contained elements but related parts of a dynamic whole. From a complementary standpoint, it implies that culture can be viewed as the inherent dynamic organization underpinning the network of symbolic universes.

due to the symbolic universe that is salient for them.[9] Thus, the fact that persons share the same culture does not mean that they have the same feelings, ideas and behavioural manifestations; rather it means that their different feelings, thoughts and acts emerge from the way symbolic universes are distributed – namely, are related to each other - within the cultural milieu. Accordingly, culture can be seen as the system of related symbolic universes that channels and constrains the plurality of ways individuals and groups belonging to a certain cultural milieu - namely the people that share that culture - feel, think and act.
In sum, SCPT conceives of culture as the *organization of the variability of the individual trajectories of sensemaking* that characterize a certain human group – namely the landscape that defines the movements of feeling, thought and acts that are possible for a certain society. [10]Thus, the cultural analysis is not aimed at understanding what people share, but what makes the difference.

Box 1. Specificity of Semiotic-Cultural Psychology Thoery

Some aspects of SCPT make it more specific than other theories that share the assumptions of the cognitive paradigm.
First, according to SCPT, cognitive activity is not located in people's heads. Rather, it is a transitional process working at the level of the dynamic interplay between the individual mind and the cultural milieu. Thus, SCPT represents a *socio-cognitive version* of the cognitive paradigm: it adopts a contextual view of the mind that is dissociated from theories that conceive of cognition in terms of mechanisms encapsulated within the individual mind (e.g. Gigerenzer, 2008; Gigerenzer

[9]. The individual's position within the cultural milieu, namely the symbolic universe the individual is identified with, may depend on a combination of biographical factors as well as one's social membership. Indeed, it is possible that the position of specific subgroups within the cultural milieu can be a result of factors such as language, gender, social class, economic and educational level, occupation, religion, and so on (Jegede and Aikenhead 1999; Triandis 1996). On the other hand, given that symbolic universes are generalized meanings concerned with basic interpretation of experience, SCPT assumes that they are affected only marginally by social factors.
More specifically, the position of a given individual on the semiotic field, therefore her/his identification with a certain symbolic universe, depends on the longitudinal experience of the social context that she/he has had: certain patterns of systematic experiences of the social milieu contribute to "move" the individual on the semiotic field, making a certain area of it (therefore one symbolic universe) more salient than others. Thus, if in a given social milieu a certain social condition is associated with a higher probability of a certain kind of systematic experience, one can expect that such social condition will be found associated with the symbolic universe(s) that are consistent with that kind of experience. For instance, take a person living in an outlying degraded urban zone who has been fired and has been long unable to find a new job – one can expect that such a pattern of experience will make the anomic symbolic universes (cf. § 4.4.B) salient for this person. Now, if in a certain society this pattern of experience is more probably associated with certain social conditions than others – e.g. with education level, with age – then such conditions will also be associated with symbolic universes.
[10]. The analogy with language helps to clarify this view. The fact that a social group shares a language does not mean that individuals in that group produce the same statements; rather, it means that these individuals produce different statements between which a relation can be found because of the fact that they are produced in accordance to a common rule. Accordingly, language is the set of shared rules that define the conditions and constraints of the linguistic variability within the social group, namely the conditions according to which and the constraints within which a relation can be found between two texts, due to their quality of both being the enactment of the same rule. In the final analysis, this means that language is a second-order form of sharing, namely a form of sharing that generates differences among those who share it. This is so because language is a process, and any process can be seen as having a set of relations (i.e. an inner organization) that is maintained over time through a constant variation of its elements (e.g. counting is a process that is maintained over time through the constant variation of the numbers that are called). Thus, like any process, language reproduces itself through the variation it makes possible, triggers and constrains.

& Tod, 1999; Gilovich et al., 2002; Goldstein et al., 2002; Kahneman, Tversky, 1979, 2000; Kanheman, 2003; Thaler, 1985)

Second, SCPT conceives of the relation between individual mind and cultural milieu in *semiotic terms,* namely as consisting of an on-going activity of sensemaking –i.e. transition among signs. People are constantly engaged with the existential task of presentifying/interpreting the reality they are immersed in – namely going beyond the ever-changing flow of the present moment and extracting from it a stable enough frame of experience. On the other hand, the on-going process of sensemaking is possible insofar as it is channelled by generalized meanings – called symbolic universes in the Re.Cri.Re. project (e.g. the idea that the world is untrustworthy) – that are available in the cultural milieu. These generalized meanings work as the system of assumptions enabling the cognitive activity of feeling, thinking, forming opinions and attitudes, making choices. In other words, the generalized meanings set the cognitive environment for sensemaking, playing the same role that the map and the compass play for the traveller.

Third, SCPT proposes a *dynamic and performative view of meaning*. As is entailed in the previous point, meaning is not considered an entity – i.e. a given set of concepts and categories, but is viewed as the on-going emergent product of sensemaking - its dynamic organization. Consistently with the teachings of scholars like Peirce (1897/1932) and Wittgenstein (1953), the focus is on action, on the interpretative activity of presentification/interpretation from which meaning emerges: meaning is the embedded form of such interpretative activity, just as the direction and form of a movement is the inherent, emerging property of the movement itself.

Fourth, SCPT highlights the *embodied valence of sensemaking*. Indeed, according to SCPT, sensemaking works by linking embodied, pragmatic and symbolic forms of meanings in a recursive spiral. The forms of activation of the body are seen as the first pre-symbolic modalities of interpreting the reality, which need to be further interpreted in terms of more developed signs, in the on-going recursive process of interpretation of which sensemaking consists (Peirce, 1897/1932). Thus, sensemaking does not concern only the symbolic, verbal level of meaning; rather, it works by linking body and language; action, feeling and words; the emotional level of experience (which is conceived in terms of affective semiosis, cf. Salvatore & Freda, 2011) and the formal level of cognition. This view is relevant because it leads us to enlarge the notion of semiosis to emotional, embodied and pragmatic forms of sensemaking and to recognize the constitutive role played by affects in sensemaking; namely the fact that affects – in being the basic and triggering form of semiosis - are the grounds of rationality, rather than its constraint. From a complementary point of view, the embodied, recursive view of sensemaking makes it possible to recognize that culture is at the root of psychological experience, where the subjective, emotional experience of oneself and the world emerges. This aspect is particularly cogent for Re.Cri.Re., because it provides the conceptual devices for seeing and analyzing the role that culture plays in grounding and shaping the social identity. And this means that the embodied and recursive view of sensemaking makes SCPT a *genetic model*, namely a theory that provides a way of understanding how sensemaking generates and shapes mental life and human action, by being embedded in the cultural milieu. In other words, SCPT is not confined to retrieving the content of the meanings that play a role in channelling individual and social cognition; rather, it enables the recursive pre-symbolic dynamics that underpin and fuel the emergence and stabilization of such contents to be understood.

Fifth, the previous points are consistent with the idea of the *reciprocal embeddedness of mind and culture.* Indeed, the dynamic and performative view of meaning means that the latter are embedded within any individual act of sensemaking. The cultural milieu is not an external super-order frame working on sensemaking from the outside (for a critique of the idea of frame in socio-cognitive theories, see Bickhard, 2009); rather, it is the inherent organization of sensemaking. And this means that any act of sensemaking reproduces performatively (i.e. by means of its exercise, as the intrinsic consequence of its enactment) the cultural milieu that grounds and shapes the act. To use an analogy, the reciprocal embeddedness of mind and culture is the same that subsists between the vortex and the molecules of a fluid – vortex and molecules are not two different things, with

the former working as the super-order level regulating the latter, but two different scales of observation of the same field dynamics, with the former being the shape of the dynamics of the latter and the latter the constitutive substance of the former. According to this conception, culture is not a meta-factor, competing with other factors (e.g. economic, normative, technological) in the construction of human events; instead, culture is the dynamic gestalt where human events come to life and develop. It is the immanent form of human phenomena.

The combination of the aspects highlighted above defines the particular profile of SCPT in the more general domain of theories informed by the cognitive paradigm. The recognition of the role played by the context in cognitive processes differentiates SCPT from the psychological models that adopt an individualist focus of analysis, viewing mental processes as a function of intra-psychological mechanisms, even if concerned with social objects. These theories are relevant because they were the first to show the potentiality of the cognitive paradigm in the study of social and economic behaviour (e.g. Kanheman & Tversky, 1979, 2000; Kahneman, 2003). SCPT is not alternative to them, but a way to complement them by means of the recognition of the contextual dynamics in which individual cognition is embedded.

On the other hand, the semiotic view of the linkage between mind and context makes SCPT a unique approach within the set of theories that recognize the role played by society in shaping psychological processes. SCPT conceives of the context in terms of cultural milieu. However, SCPT views the cultural milieu neither in terms of contents (e.g. traditions, social norms, artefacts, mental model) - as many approaches in social psychology (e.g. Social Cognition, Social Representation Theory) and cultural psychology (e.g. Shweder, 1991, 2000) do – nor as an autonomous overarching entity acting on cognition from the outside, in a top-down way - as is more or less implicitly assumed by approaches like cross-cultural psychology (Heine, 2011), structuralism (Levy-Strauss, 1958), and Marxian approaches (e.g. Racker, 1968). Unlike these approaches, the context is interpreted in dynamic and performative terms, namely as an embedded system of generalized meanings that the subject is part of, and which therefore works as the generative matrix of individual cognition [for similar approaches, see Rommetveit (1992), Moscovici (1961), Douglas (1986), Geertz (1983), Bourdieu (1972)]. This view is shared by cultural psychologists that interpret the legacy of Vygotsky (1978) in terms of the constitutive and mediational role that human activity and artefacts play between cognition and reality (e.g. Cole, 1996). On the other hand, with respect to the latter theories, the embodied and recursive view of sensemaking leads SCPT to introduce a micro-genetic standpoint, enabling the fact that individual cognition is shaped by contextual meanings to be integrated with the model of how this shaping is enacted, namely the model of the affective constitution of subjective experience (see the concept of presentification, § 3.3). In so doing, SCPT is similar to models that focus on the micro-analysis of concrete acts of sensemaking – i.e. discursive psychology (Edwards & Potter, 1992; Harrè & Gillet,1994; Linell, 2009), dialogical theory (Hermans, 2001), ethnomethodology (Schutz, 1967), intersubjective psychoanalysis (Mitchel, 1988; Storolow et al., 1995) - which are interested in the way meaning is construed through interpersonal communication dynamics. However, the recognition of the reciprocal embeddedness of the cultural system of meanings and individual cognition leads SCPT to differentiate itself from the tendency of such theories to remain entrapped in the local level of analysis (i.e. interpersonal communication), that leads, on the one hand, to the implicit assumption of a sort of unlimited capacity of the actors to construe and negotiate meaning and, on the other hand, to skip the major issue of how culture changes by means of its local enactment.

3.4. Implications of SCPT for policy-making

The Re.Cri.Re. project is based on the assumption that the analysis of social identity through the theoretical and methodological lens of SCPT may provide a significant contribution both to the understanding of social dynamics characterizing the current status of European societies and the way of designing and implementing policies for addressing them. More particularly, due to its

particular theoretical traits, SCPT may provide an answer to two main needs of policy design - the need for a *deeper understanding of the cultural milieu* and *the need for a model of social change*. This is so because SCPT is designed not only to depict the contents of the cultural milieu, but also to understand the latent mechanisms underpinning them.
Four aspects of STCP enable it to pursue this task.
1) The focus on the embodied dimension of sensemaking makes SCPT a genetic model (see above § 3.3); thanks to this focus, one can understand that the cultural milieu is part and parcel of the individual affective-laden lived experience, and vice versa. As a result, any cultural innovation has to be recognized in the fact that it requires and is conveyed by a subjective change in identity.
2) The recognition of the reciprocal embeddedness of individual sensemaking and cultural milieu; accordingly, any act of sensemaking can be seen as a process of reproduction or change of the cultural milieu.
3) The idea of the immanency of meaning in action, which enables us to think of actions not only as the targets of the interventions, but also as their performative drivers.
4) The dynamic, content-free view of culture in terms of semiotic process, namely as a field dynamics of transition among signs, that needs to be understood in terms of oppositional linkages of similarity/dissimilarity relationships. This view paves the way to the definition of a computational model of the underpinning mechanisms through which the cultural milieu reproduces itself over time.

Box 2. Psychosocial mechanisms between *explanans* and *explanandum*

A recent report by the World Bank (WB 2015) has reviewed the contribution that the cognitive paradigm can provide to developmental economics and more in general to the design of intervention aimed at social innovation. The review sums up the findings of several decades of research in psychology in three basic tenets:
1- constraining thinking;
2- social embeddedness of thinking;
3- mental models.

These three tenets are fully representative of what was defined the cognitive paradigm in the framework of this deliverable. On the other hand, they represent the expression of psychological theories that interpret the cognitive paradigm from within an individualist approach to the mind. Needless to say, these tenets do not negate the fact that cognitive activity is performed within a context and that it is contingent to it; yet, the context is considered the source of the input, which is however elaborated at the level of the individual mind (for instance, the actor's membership of a certain social group – tenet 2 – is considered as an input that is computed by the individual cognitive system)
The WB report shows that these tenets introduce an important modification in the traditional view of rationality. Moreover, from each tenet the report draws several exemplificative practical suggestions for the design and the implementations of interventions. These suggestions are very important – they show that psychology and the social sciences informed by the cognitive paradigm are able to provide a significant impact on the quality and efficacy of policies, often without great additional costs. On the other hand, in several cases the main value of these suggestions lies in the fact that they call for the adjustment of the interventions in order to make them consistent with the constraints due to the way the individual mind supposedly works.
For instance, in Kenya, many households report a lack of cash as an impediment to investing in preventive health products, such as insecticide-treated mosquito nets. However, by providing people with a lockable metal box, a padlock, and a passbook that a household simply labels with the name of a preventive health product, researchers increased savings, and investment in these products rose by 66–75% (Dupas & Robinson, 2013). The idea behind the program is that although money is fungible—and cash in hand can be spent at any time—people tend to allocate funds through a process of "mental accounting" in which they establish categories of spending and

structure their spending behaviours accordingly. What was important about the metal box, the lock, and the labelled passbook was that it allowed people to put the money in a mental account for preventive health products. *"The intervention worked because mental accounting is one way in which people are often "thinking automatically" and is an example of a more general framing or labelling effect in which assigning something to a category influences how it is perceived"* (World Bank 2015, p. 4).

Another example concerns the interventions made to address the problem of diarrheal diseases (Ahuja, Kremer & Zwane, 2010). Lack of access to clean water was diagnosed as the problem. Thus an early intervention aimed at improving the infrastructure of households' water sources, which are naturally occurring springs. The springs were susceptible to contamination, such as fecal matter from the surrounding environment. To reduce contamination, the springs were covered with concrete so that water flowed from an above-ground pipe rather than seeping from the ground. While this measure considerably improved water quality at the source, it had only moderate effects on the quality of the water consumed at home because the water was easily re-contaminated while it was being carried or stored. Thus the problem was redefined this way: households were not adequately treating their water at home. Another interaction of experiments demonstrated that providing free home delivery of chlorine or discount coupons that could be redeemed in local shops elicited high take-up of the water treatment product at first but failed to generate sustained results. People needed to chlorinate their water when they returned home from the springs, and they needed to continue to go to the store to purchase the chlorine when their initial supplies ran out. These results suggested yet another diagnosis of the problem: households cannot sustain the use of water treatment over time. This led to the design of free chlorine dispensers next to the water source, which made water treatment salient (the dispenser served as a reminder right when people were thinking about water) and convenient (there was no need to make a trip to the store, and the necessary agitation and wait time for the chlorine to work automatically occurred during the walk home). It also made water treatment a public act, which could be observed by whoever was at the spring at the time of water collection, allowing for social reinforcement of using water treatment. These dispenser proved to be the most cost-effective method for increasing water treatment and averting diarrheal incidents (World Bank 2015, p. 19).

What suggestions like those reported above cannot do - because the tenets they are based on do not enable it – is to envisage how to go beyond the psychosocial reality that the tenets describe. To be sure, one can imagine many circumstances when people's tendency to adopt automatized, framed thinking, to shape their choice in accordance with and as a function of the social bond, to constrain and let their thinking be guided by their implicit mental model, is not problematic in itself, being compatible with the promotion of social innovation. On the other hand, one can find circumstances in which automatized, framed thinking, social bond and mental models prevent any form of development, representing the very target of policies. In such circumstances the social sciences are asked to go beyond the description of the salience of this mechanism in order to model not only their way of affecting social and economic behaviour, but also their way of being affected. The questions that arise in such circumstances are:

- How to help people to use more functional reasoning processes? How does it happen and why?
-How to develop innovative social norms and how to reduce the impact of critical social norms? How does it happen and why?
- How to change mental models? How does it happen and why?

In the final analysis, these questions challenge us to shift from considering the individual cognitive mechanisms as the *explanans*, to consider them as the *explanandum*

4. PART I. THE MAP OF SYMBOLIC UNIVERSES

4.1. Aims

The aim of this area of investigation is to map both the content and the semiotic structure of symbolic universes. "Content" here refers to the ideational fabric – opinions, representations, values, worldview – substantiating the worldviews expressed in the symbolic universe. "Semiotic-structure" here refers to the latent dimensions of sense that shape the cultural milieu.

It is worth noting that the distinction between content and structure is based on SCPT view of the cultural milieu and of the relation between cultural milieu and sensemaking (see § 3.3 and Box 1), and it is aimed at analysing symbolic universes in a way that goes beyond the mere description of culture in terms of its manifestations, in order to provide an interpretative model of the deep dynamics these manifestations emerge from.

This aim descends from the more general purpose of the Re.Cri.Re. project, which does not regard symbolic universes only as an explicative construct to be used for understanding social identity and social behaviour (i.e. the social phenomenon X depends on the cultural state Y); indeed, the ambition of the Re.Cri.Re. project is to make symbolic universes – and more in general the cultural milieu – the target of strategic interventions; and to do so means developing a methodological approach that combines the hermeneutic search for a deep comprehension of the anthropological and psychological aspects of the cultural dynamics with a computational approach aimed at providing abstract, mathematical models of its inherent, latent structure. This integrated approach is what is needed in order to provide policy makers with an outlook on the cultural milieu that is able not only to assess the impact of symbolic universes on social identity- and more in general on policies- but also to envisage how to intervene to change them, to set realistic objectives and to foresee the kind of expected impact.

4.2. Framework

The method adopted for analysing symbolic universes is based on the interpretation of culture following the Dynamic System Theory (Lauro-Grotto et al, 2009; Salvatore et al, 2009). According to such a view, culture is viewed as a *semiotic field* and modelled consequently. This part outlines this methodological framework. The following section presents the research design drawn from it.

4.2.a. Culture as field, attractors, lines of force

The analysis of symbolic universes is based on the view of sensemaking as a dynamics of *sign transition* (cf. § 3.3): sign *n* follows sign *m* as the interpretation of *m* (Peirce, 1897/1932). Thus, the meaning lies neither in *m* nor in *n*, but in the fact that *m* is followed by *n* (instead of *p*, *q*,...) (Linell, 2009; Salvatore, 2016).[11]

Now, if one takes signs as points of a space (*semiotic space*), each transition from one sign to another can be viewed as movement within this space (Salvatore, 2016). And this means that sensemaking can be viewed as a *trajectory of signs within a semiotic space.*[12]

[11]. For instance, the sign "it is a cake", followed by "it is very tasty" gives relevance to the zone of meaning concerning the pleasure of eating; differently, the sign "it is a cake" followed by "it is very beautiful" would give relevance to the zone of meaning concerning the aesthetic experience.

[12]. More particularly, a semiotic trajectory consists of a space-time pattern of association among signs: a set of co-occurring signs (synchronic, syntagmatic association) that tend to be associated over time (diachronic, paradigmatic, temporal association) and in so doing tend to activate a certain instance of meaning. For instance, a synchronic set of signs consisting of a verbal statement, a state of feeling, a non-verbal expression and a certain co-occurring act is a syntagmatic association; the moment by moment chain of these sets represents a temporal pattern. Sensemaking consists of the semiotic trajectory comprised by this chain.

On the other hand, the semiotic space can be seen as a field. The notion of field comes from physics, but it has been used by social sciences (e.g. Lewin, 1947). A field is a system whose inherent dynamic organization (i.e. the interplay of its elements) exerts an effect on the elements constituting it. [13] As should appear evident, the definition of culture in terms of field is a way of operationalizing the more general theoretical view of sensemaking as depending on the position of the subject within the semiotic space (see § 3).[14]

Accordingly, a symbolic universe can be seen as an attractor – i.e. as a sub-region of the semiotic space towards which the semiotic trajectory leads - being active within the semiotic field and making a certain trajectory of sensemaking preferable to others. At a phenomenical level, the activity of an attractor consists of the fact that given sets of co-occurring ideas, habits, acts, attitudes, artefacts, statements, feelings, etc. - that is to say a given state of human affairs - tend to be associated with each other, and for this reason tend to qualify the experience of oneself, others and the world.

In turn, the inherent organization of a field, therefore the salience of the attractors that characterize it - can be modelled in terms of lines of force. A line of force describes the local dynamic effect the field exerts on its elements due to their position within the field. Thus, a line of semiotic force detects the direction and the magnitude of the effect that the individual sensemaking is subjected to, due to its position within the cultural milieu, once the latter is interpreted in terms of semiotic field (for a similar view of linguistic meaning, see Anderson, 2001; Visetti & Cadiot, 2002).[15]

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[13]. Accordingly, the behaviour of the element is modelled as a function of the position it has within the field, therefore of the way it is subjected/participates in the whole dynamics (i.e. the inherent organization) of the field. For instance, the behaviour (i.e. the trajectory and the speed) of a certain object is a function of its position within the gravitational field.

[14]. It is worth highlighting that the notion of field is an analytic concept- it does not correspond to a specific piece of world; rather it is a theoretical device through which the reality under investigation is modelled. This means that one can apply the notion of field to different objects of investigation. This is what has been done here in the context of the synchronic analysis. Indeed, we have used the notion of field with two different gradients of extension. On the one hand, area A1 of investigation is focused on the more generalized organization of sensemaking, the one underpinning the cultural milieu as a whole. In this case, the map of the cultural milieu is not specific to a certain domain of life, but represent the basic, generalized way of experiencing, feeling, thinking and acting, across and regardless of the specific contents of experience. The analysis of symbolic universes reported in Part I concerns this trans-domain level of investigation, aimed at mapping the basic, generalized components of sensemaking. On the other hand, similarly to other theoretical traditions (e.g. Social Representation Theory) area A4 of investigation - focused on the analysis of how specific objects are represented by the media - is an example of the study of a domain-specific semiotic field.

Moreover, it is worth observing that the extension of the semiotic field may vary according to the dimensionality of the social group it is associated with. In the context of the synchronic analysis we have considered three different dimensionalities – the European population as a whole, the social group corresponding to a country, the social group corresponding to a quite homogeneous geographical site (i.e. a territory). Also in this case, the lines of forces detecting the organization of sensemaking have to be considered as referring to different levels of generalization, corresponding to the extension of population under investigation.

[15]. It is worth noting that this view does not imply a unidirectional, top-down view of the relation between culture and sensemaking – as if the latter were just the dependent variable of the former. Rather, the relation between cultural milieu and individual sensemaking is recursive, even if the components of the recursion work on a different temporal scale and different magnitude. This is so because whereas the symbolic universes provided by the cultural milieu channel sensemaking, in turn the unfolding of the trajectory of the individual sensemaking across time constantly modifies both the local and global dynamics of the field. Indeed insofar as an element changes its position within the field as a result of the field forces it is subjected to, the field also has a different impact on the element (local effect). However, given that the lines of forces represent the inherent organization of the field, they change as a result of the behaviour of the elements constituting the field – and this means that the trajectory of the element has an impact on the whole

Accordingly, the variability of the individual trajectories of sensemaking within a semiotic field can be viewed as the manifestation of the interplay of lines of semiotic force. And this means that each attractor of the semiotic field – namely, each *symbolic universe - can be interpreted as the emergent effect of the interplay of a certain set of lines of semiotic force* (cf. Figure 4.1).

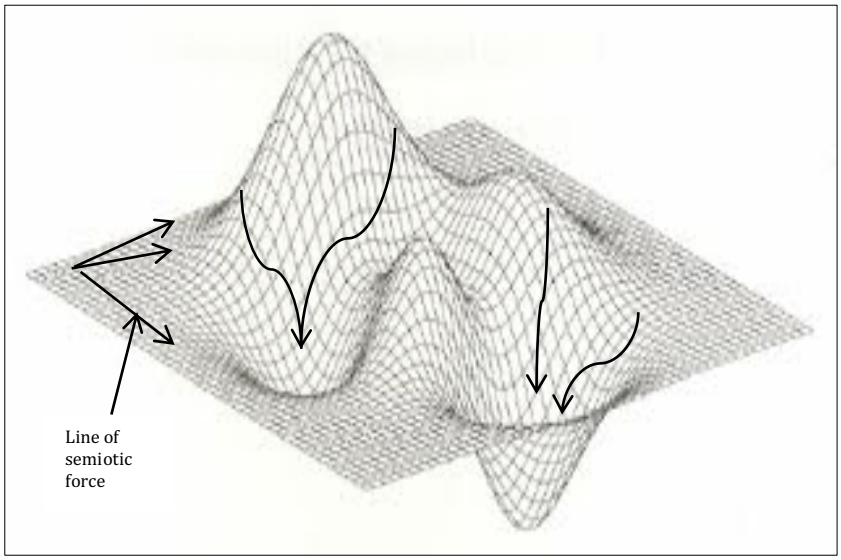

Figure 4.1. Culture as field

Box 3 Symbolic universes between invariance and variability

The model of culture in terms of field dynamics leads us to distinguish two levels of variability.
On the one hand, culture is inherently variable. Indeed, the cultural milieu is made of a plurality of symbolic universes, each of them expressing a particular interpretation of the shared culture. This plurality corresponds to a different salience of the lines of semiotic force over the semiotic field: each symbolic universe can be considered to result from the combination of the salience of a certain cluster of line of semiotic force, as a certain colour results from a particular mix of certain basic chromatic units.
On the other hand, the salience of the lines of semiotic force are distributed in a heterogeneous way in the cultural milieu; namely, they have different gradients of "appeal" within the population and/or in relation with particular domains (i.e. the experience of health, economic behaviour), depending on how important they are in the semiotic organization of the experience. Indeed, one may assume that different segments of the population have to address semiotic tasks (i.e. interpretation of experience) that are partially equivalent, but partially specific. For instance, a segment of the population that (due to contingent or structural conditions) has to deal with a systematic state of threat will use the antinomy "powerful-impotent" more than a segment of population that is instead engaged with a semiotic task of interpreting a state of affairs characterized by the variable reliability of institutions. In sum, any segment of the same population tends to be exposed to a particular region of the social context, characterized by a certain form of variability of the state of affairs. Each form of variability triggers the salience of a certain cluster of latent dimensions of sense, due to the fact that any latent dimension of sense is an efficient way of making a certain aspect of reality pertinent, rather than others. The more a certain dimension is

dynamics of the field (global effect). For instance a certain body in the universe is subjected to the gravitational attraction of a bigger body- this attraction is not constant, but changes according to the distance between the two bodies: the closer they are, the higher the attraction; at the same time, the closer the two bodies are, the more they change the shape of the spatial-temporal structure of the gravitational field.

used as basic form of interpretation of experience, the more generalised its use, the more it will work as a salient line of semiotic force in shaping the subculture of that segment of population.

4.2.b. The oppositional structure of lines of force and the bivalence of meaning

According to SCPT, a line of semiotic force has to be conceived as a basic*, embodied, affect-laden latent dimension of sense.* This is so because as intended here, the line of semiotic force detects the dynamics of the field: it is the constitutive element of symbolic universes, which shapes their capacity of working as semiotic attractors. It follows that the lines of semiotic force are at the core of the process of presentification of experience, underpinning the two complementary basic semiotic operations through which such a process is enacted (cf. § 3): on the one hand, the pertinentization of one component of the world, foregrounded as the object of experience; on the other hand, the attribution of a certain affect-laden quality to the pertinentized dimension of the experience.[16, 17]

It is important to add that it is worth modelling the quality attributed to the pertinentized experience in terms of antinomian structures - e.g. pleasant *versus* unpleasant; trustworthy *versus* untrustworthy; familiar versus unfamiliar (for empirical analyses based on this method see Mossi and Salvatore 2011; for a methodological discussion, see Salvatore & Venuleo, 2013; see also Ugazio, 2013).[18, 19] This is what comprises the constitutive bivalence of meanings – namely the fact that the latent dimensions of sense working as lines of semiotic force have an oppositional structure: the semiotic activation of a certain quality is at the same time the semiotic neutralization of the opposite quality.

Incidentally, the bivalence of meaning is consistent with the dynamic view of sensemaking envisaged by SCPT. Indeed, according to SCPT, sensemaking is a process that defines its trajectory moment by moment, due to its position in the semiotic field - therefore its previous history and the semiotic forces currently subjecting and constraining it. This means that the moment-by-moment state of the trajectory emerges from a set of potential alternatives. For

[16]. It is worth noting that the two operations constitute each other – foregrounding is performed by attributing the quality, because this quality inherently entails a certain pertinentization of the object. For example, to say "X is red" means attributing a quality (redness) and *ipso facto* pertinentizing a dimension of X, namely interpreting it in its quality of being a chromatic object.

[17]. The final consideration clarifies why the semiotic field is a second-order form of sharing (cf. § 3) – it leads people to share categories in terms of which the experience is pertinentized; once this is done, people are enabled to disagree with each other on the specific attributes to give to the shared reality.

[18]. An antinomian category requires a 1-dimensional space to be represented (i.e. a line), while a self-contained category is represented by a 0-dimension space (i.e. a point). An antinomian category has the property that the negation of one pole is the same of the affirmation of the other (i.e. if *p* and *q* are the polarities of the category, then *p=no(q)* as well as *no(q)=p* [Salvatore, Tonti, Gennaro, 2016]).For instance, given the antinomy friend/foe, to be not-friend is the same as being foe (on the affective nature of the antinomian categories, see Salvatore & Zittoun, 2011).

[19]. The idea of the oppositional structure of meaning is implied in the huge literature on the semantic differential technique (Osgood, Suci, & Tannenbaum 1957). It can also be found in the context of Social Representations Theory- Markova (2003) maintained that representations are embedded in *themata*, namely culturally shared oppositional antinomies underlying commonsensical thinking, and grounding social representations of daily life phenomena; accordingly, social representations can be conceptualized as a specific position on these specific oppositional antinomies. The oppositional structure of meaning also plays a major role in psychoanalysis, in particular in the theory of affects (see the good/bad scheme proposed by Klein, 1967; see also Stein, 1999). This theory has important implications for our discussion here. Indeed, it helps to recognize how, when basic, affect-laden generalized meanings are concerned, the antinomian structure comes from the presence/absence of one fundamental quality, rather than from the contrast of two independent qualities. As Melanie Klein(1967) maintained, the little baby feels the absence of the mother as the presence of the "bad" mother (for a discussion, see Salvatore & Freda, 2011).

instance, if a person says "X", the meaning of "X" is not only in "X", but in the fact that she said "X" instead of "Y" which however she could have said. In sum, the meaning is not only a matter of *in-praesentia* relationship, but also of *in-absentia* relationship among signs (de Saussure 1916/1967; for a discussion, see Salvatore, 2016; Salvatore, Tonti, Gennaro, 2017).[20, 21]

Box 4 Antinomian structure of sensemaking and *in-praesentia* and *in-absentia* relationships between signs

Modelling the semiotic lines of force in terms of oppositional linkages is the way of describing how they involve both *in praesentia* and *in-absentia* relationships; namely the fact that when a transition between sign A and B occurs, this transition is also the event consisting of the fact that the potential transition A to B' has not occurred. And this is also a way of saying that the meaning of A-B is not held in B but in the fact that B occurred *instead of* B', and therefore that the meaning is in the B-B' oppositional linkage.

The modelling of the semiotic field in terms of the interplay of oppositional semiotic lines of force allows us to map sensemaking not only in what is claimed (the *in-praesentia* associations), but also to recognize that claiming something inherently entails neutralizing, de-empowering, dissociating from the polarized alternative.

According to what was observed above, it can be seen that the oppositional linkage is essential to the process of pertinentization that is at the grounds of sensemaking. Indeed, it is thanks to the *in-absentia* relationship between the opposite polarities that the component of the experience selected from the world is implied – and thus enacted. For instance, the basic semiotic line of force "good/bad" gives pertinence to the quality of the world consisting of its capacity to fulfil one's need/desire. The two polarities represent two different states of this property – being present or absent. Thus, the pertinentization consists of – and is enacted in the terms of - what the two opposite terms have in common, their ground (to use Peirce's terminology).

4.2.c. Summary

Before concluding, it is worth noting that the model of analysis envisaged above merges two different aims. On the one hand, it is aimed at identifying the *content* of symbolic universes that are active in the cultural milieu and as such shape social identities (symbolic universes as they are expressed in a particular worldview). On the other hand, symbolic universes are understood in terms of the basic, affect-laden oppositional latent dimensions of sense (i.e. lines of semiotic force), the combination of which produces the contents. In this way the analysis of the cultural grounds of social identity is not confined to describing the content, namely the emotional and cognitive output of the individual sensemaking channelled by the cultural milieu; instead, it is aimed at modelling the genetic dynamics that bring about these outputs, namely the latent organization of culture that underpins the salience of symbolic universes, what enables them to work as semiotic attractors. The ambition is to move the cultural analysis from a descriptive to an explicative form of knowledge, like chemical analysis which is not confined to describing the organoleptic

[20]. The relevance of *in-absentia relationship* is evident in the fact that many sets of signs are equivalent regardless of the differences in their content – for instance, in certain circumstances the statement "he is a boy" is equivalent to the expression "he is an immature person". These two statements have nothing in common at the level of content; yet they can enter the same set of *in-praesentia* associations because they share the same *in-absentia* relationships – for instance - in certain circumstances – they share the same in-absentia relationship with the statement "he is a trustworthy person.

[21]. It is worth highlighting that the oppositional linkages are contingent to the field. Any sign is part of an infinite set of *in-absentia* relationships – for instance, "to be a boy" can be opposed to "to be a girl", "to be an old man", and so forth. The oppositional linkage activated depends on the here and now of the sensemaking, namely on the local condition of the semiotic field.

characteristics of molecules, but provides an analysis of their chemical composition and of how this composition sheds light on the descriptive characteristics.

In sum, modelling culture in terms of semiotic field, and the latter in terms of lines of semiotic forces and attractors leads us to understand culture in terms of two complementary levels of analysis:

- the analysis of the inherent organization of the semiotic field as a whole, namely the model of the *lines of semiotic force* that work as the underpinning latent dimensions of sense that foster the salience of symbolic universes and in so doing shape (channel, constrain) the individual trajectories of sensemaking;
- the identification of *symbolic universes,* each of them consisting of a set of generalized meanings substantiating a particular worldview, an implicit theory of the world, a mindset in terms of which the relation with the world is interpreted and lived.

Moreover, the methodological view of culture in terms of field leads us to adopt a *multilevel and multifocal approach* – the analysis has to be repeated at different extensions and in terms of a plurality of phenomenical domains, in order to map the cultural milieu both in its structure and in its inherent variability (cf. Box 3).

4.3. Method

4.3.a. The operational model of culture in terms of phase space

The view of culture as a semiotic field underpinning the variability of the trajectory of sensemaking leads us to map it in terms of phase space. A phase space is a space in which each dimension describes a component of the variability of the object being investigated. For instance, if one wanted to describe a certain set of objects – say, cars - one can do it in terms of a 3-dimension phase space having colour, price, and horsepower as dimensions. Each car will correspond to a point of the phase space defined by the values of such parameters (i.e. colour, price and horsepower).

In the case of the analysis of the cultural milieu, each dimension of the phase space represents one line of semiotic force.[22] Accordingly, the phase space of the cultural milieu (henceforth, *semiotic space*) maps the whole variability of the trajectories of individual sensemaking enacted within the cultural milieu.

In order to operationalize the dimensions of the semiotic space modelling the cultural milieu, it is worth referring to SCPT models of meaning in terms of patterns of co-occurring signs (cf. § 3). On this basis, the view of the line of semiotic force as an oppositional linkage between two antinomian meanings/states of a basic quality (cf. § 3; Box 4) leads to the following operational definition: *a line of semiotic force consists of the oppositional linkage between two patterns of co-occurring signs.* In the final analysis, as in the case of electromagnetic polarization, a line of semiotic force consists of the capacity of polarizing the enactment of a certain set of signs in two antinomian subsets.[23]

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[22]. This follows from how the line of semiotic force is intended – as a factor fuelling the variability of the individual sensemaking.

[23], This capacity reflects the fact that – as intended here - a line of semiotic force consists of the pertinentization of a certain component of the world, in so doing emerging as the object of the experience (cf. § 3). Pertinentization makes a quality relevant and consequently also a certain cluster of signs usable to connote its presence or absence. Thus, signs of a certain cluster are channelled to be used together, interchangeably and alternatively to signs of another cluster, namely the signs corresponding to the oppositional pole. For example, say signs like "beautiful", "nice", "good" tend to co-occur within a certain instance of speech, and to be opposed to signs as "ugly", "bad", "unfair", where the opposition consists of

Accordingly, *the semiotic space is a space in which each dimension corresponds to an oppositional latent dimension of sense working as a line of semiotic force and represented in terms of the polarization between two sets of points, each of them depicting a pattern of co-occurring signs in reciprocal antinomian (in-absentia) linkage* (cf. Box 5).
According to the methodological framework presented above, any set of individual trajectories of sensemaking can be analysed in order to detect the oppositional linkages among antinomian patterns of signs that shape it. These oppositional linkages are the markers of a corresponding number of underpinning lines of semiotic force - as the distribution of the iron filings shows the effect of the lines of electromagnetic force, the way signs combines with each other reveals the underpinning line of semiotic force.

The same methodological framework also provides a way of operationalizing symbolic universes. Similarly to the line of semiotic force, a symbolic universe can be viewed as a set of co-occurring signs, thus expressing a certain area of meaning (i.e. a certain worldview). What distinguishes a symbolic universe from a line of semiotic force is the fact that the former does not have an oppositional structure. In sum, whereas a line of semiotic force encompasses both *in-preasentia* (i.e. the pattern between the co-occurring signs) and *in-absentia* relationships (i.e. the oppositional linkage with the antinomian pattern), symbolic universes consist of *in-praesentia* relationships only (Salvatore & Venuleo, 2013).

Box 5. The semiotic phase space as a device for the analysis of symbolic universes

Some considerations are worth adding to the model of semiotic space, in order to clarify how it can be used as a heuristic and operational device for the analysis of symbolic universes.
First, the semiotic space is not a universal, ubiquitous structure, but an analytic tool whose content changes according to the context of experience under investigation – namely the actual circumstances in which a social group, with a certain history, is involved in a certain system of activity (cf. footnote 14). On the other hand, SCPT assumes that at the basic level of experience – namely, at the level of the presentification of the world – generalized, embodied, affect-laden meanings are involved. Accordingly, a semiotic space consisting of the basic latent dimensions of sense through which the experience of the world as a whole is presentified can be interpreted as a quite stable and generalizable model of the cultural milieu. In other words, a model that one can assume will be more or less the same regardless of the specific context of activity at stake – the specificity of which becomes evident on a more specific level of analysis.[24]
Second, it must be taken into account that the semiotic space is a description of the cultural milieu from the standpoint of an external observer, rather than from that of the sensemaker. Indeed, the latter does not represent its activity of interpretation as a trajectory among semiotic attractors, but is embedded in a symbolic universe (which is why we have called it a "universe"); the sensemaker feels, thinks and acts through the symbolic universe she/he is identified with.
Third, according to its role of attractor, a symbolic universe represents a subspace of the semiotic space towards which the trajectory of sensemaking preferentially tends. It follows that a symbolic universe can be analysed in terms of its dimensionality, namely of the number of lines of semiotic force that are salient in its activity – the less the dimensionality of the attractor, the less the degree

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the fact that the two clusters of co-occurring signs are used so that one sign of the former cluster is associated with signs of the same cluster but not with signs of the other. Accordingly, the polarization between the two clusters can be interpreted as the marker of an *in-absentia* relationship detecting a line of semiotic force consisting of the latent dimension of sense: "positive/negative".

[24]. This is one of the reasons that leads a twofold level of analysis of symbolic universes to be adopted – the survey aimed at detecting the views of the context and the analysis of the way certain topics are represented on the media. The former level is aimed at detecting the generalized meaning mediating the experience of the world as a whole; the latter concerns the detection of the domain-specific lines of semiotic force.

of freedom of the trajectory, the more the constraints on its capacity to vary (Lauro-Grotto et al, 2009; Salvatore et al, 2012; Salvatore, Tebaldi, Potì, 2006/2009). A symbolic universe that is the effect of the salience of just the pole of one line of semiotic force corresponds to a 0-dimension attractor – i.e. a point of the semiotic space. An attractor of this kind rigidly channels the sensemaking, as if there were only one compulsory way of interpreting the experience. On the other hand, an attractor emerging from the interplay of *n* (polarities) of lines of semiotic forces is an n-dimension attractor that provides the trajectory of sensemaking with a corresponding number of chances of variability.
Fourth, it has to be highlighted that the semiotic space is a structural map of the dynamics of the cultural milieu, designed in order to model culture and how it channels individual sensemaking. This means that symbolic universes concern the cultural milieu and as such they may not be intended as constructs describing individual psychological characteristics (i.e. as a mental model or as personality traits). This is so for two main reasons. First, the symbolic universe is a construct that models a process (the way culture channels the trajectory of sensemaking), rather than a characteristic. Second, the symbolic universe is a construct concerning the population as the level of analysis, not the individual (for a similar view applied to the critique of the use of factorial dimensions as markers of personality traits, see Lamiell, 1998). In most, if not all cases, individuals are associated with a certain symbolic universe *preferentially, but not exclusively*; therefore, any individual trajectory of sensemaking is subjected to the attraction of a plurality of symbolic universes, though with different gradients of salience. In sum, the variability of the cultural milieu is able to foster an exponential variability of individual sensemaking.

4.3.b. Design

According to SCPT, the cultural milieu has to be considered to be inherently variable both at the level of content (i.e. the plurality of symbolic universes) and at the level of its inherent dynamic organization (i.e. the salience of the lines of semiotic forces) (cf. Box 3). It follows that the analysis of symbolic universes has to be performed at a different scale of population (e.g. at the level of Europe, countries, regional areas) and with different foci of investigation, in order to detect the components of the fields that work as the invariant grounds and the components substantiating the intra-cultural variability. Accordingly, two lines of investigation was carried out.
First (L1), the analysis of the European semiotic field was performed at the level of the whole universe – namely, assuming the domain of European countries as a whole. The output of this analysis is the map of the lines of semiotic force and symbolic universes in terms of which one can model the European cultural milieu (needless to say, the cultural milieu of the European countries covered by the analysis, see below).
Second (L2), the description of the segments of population associated with symbolic universes and the comparison of the incidence of symbolic universes within each European country was carried out. This analysis is based on the fact that any participant can be associated with the symbolic universe that is more representative of the individual (cf. Box 5). Consequently, it is possible to estimate the distribution of symbolic universes within each European country involved in the analysis.

4.3.c. Sample

Each line of investigation adopted a specific sample, extracted from the same main sample (henceforth, *Sample 0*), in accordance with the line's purpose.
Sample 0 is a convenience sample, collected by means of a mixture of snowball procedure and specifically designed communicational actions (e.g. presentation of the survey on social networks and in public contexts/events, addressed both to general and *ad hoc* audiences - local administrators, economic operators, academic teachers and students). In the case of Denmark,

Netherlands, and UK parallel to the convenience sampling, a finalized procedure of stratification was also adopted.[25]
Needless to say, the combination of the use of an on-line procedure and the adoption of a convenience sample exposes the survey to significant limitations. Indeed, the composition of the population of respondents is affected by the accessibility to internet and the level of commitment; complementarily, the convenience sample does not allow us to control the representativeness of the samples. The post hoc procedures adopted, together with the post-hoc analysis of reliability was designed for the sake of minimizing the constraints due to the procedure of sampling adopted (cf. § 4.3.f).
As currently defined, most Sample 0 consists of the set of participants collected from the beginning of November 2015 to the end of November 2016.[26] The inclusion criterion was response rate above 75% of the questionnaire's active variables (see below, § 4.3.d and 4.3.f). Accordingly, sample 0 size was N=7207 respondents (out of N=8959 persons that entered the survey). Sample 0 is characterized by a higher proportion of women compared to the European population (60.4% vs. 51.2%) and lower and more homogeneous age - Mean=41.44 (sd 16.01) vs. 41.47 (sd 23.15). Moreover, sample 0 was marked by a higher proportion higher education levels compared to the European population – levels to lower secondary education: 16.3% vs. 27.5%; upper secondary and post-secondary, non tertiary education 20.3% vs. 46.6%; tertiary education: 63.4% vs. 26.0%. Sample 0 is composed mainly of respondents from Netherlands (14.7%), Greece (13.9%), Estonia (13.5%), Italy (12.3%), Denmark (11.9%), UK (10.6%), Spain (5.4%), Brazil (4.0%), Cyprus (3.2%), Germany (3.0%), France (2.3%), Malta (2.3%). Sample 0 involved respondents from other European countries - Bulgaria, Belgium and Portugal - also, yet below 1%.

L1 Sample
Sample L1 (N=727) is a homogeneous, non-proportional block sample, randomly extracted from sample 0 in accordance to a 8-block schema (gender*4 levels of age [<31/31-45/46-60//>60]), applied separately to each country; n=9 was the designed number of participants for each block. Countries were included in the analysis if the corresponding subsample presented at least 5 out of 8 blocks with n>5. In so doing, 11 European countries were sampled (Cyprus, Denmark, Estonia, France, Germany, Greece, Italy, Malta, Netherlands, Spain, UK). Among these, 6 reached the designed distribution (n=9*8 blocks) – Denmark, Estonia, Greece, Italy, Netherlands, UK. In other countries most of blocks that could not be fully accomplished are those concerning the higher age level (>60 years).
The structure of sample L1 responds to the criterion of *maximum variability,* by which the validity of the sample does not consist of the correspondence between the frequencies of the relevant states in the sample and in the universe. Rather, the sample has to mirror as closely as possible the population's *extension* of the distribution, namely its variability, regardless of the probability associated with states. As a matter of fact, in any population there are patterns of conditions that

[25]. We have designed a sampling strategy for a national representative sample of Denmark, Netherlands, and UK respondents and paid a subcontractor to disseminate and collect data. This was necessary because of the low response rate for a survey that depends on voluntary participations. In particular, our data collection for the 3.1a task

- Stratified random sample (age*gender*education) within regional units (UK: NUTS1 level; Denmark and Netherlands: NUTS2 level).
- Survey implemented online.

[26]. More specifically, the sets was collected up June 2017, with the exception of Denmark and Netherlands' sub-samples. Denmark sub-sample was gathered in September-October 2016; Netherlands' subsample in October-November 2016. Taken as a whole, 65.3% respondents fullilled the questionnaire in the period November 2015- April 2016; 31.2% between May and October 2016; 3.3% in the following semester (November 2016- April 2017). Very few participants (0,2%) responded between December 2016 and June 2017.

even if quantitatively marginal, may have an important heuristic value – in particular in the case of studies designed to support innovative social dynamics. Such marginal patterns would have a very limited probability of being selected in the case of a sample based on the criterion of representativeness; this probability increases in the case of samples created following a procedure aimed at maximizing variety. Moreover, given that multidimensional analysis (the procedure of statistical analysis adopted for the mapping of the semiotic field; cf. § 4.3.f) is based on the analysis of similarities/dissimilarities within data, the more the sources of variety, the more the possibilities of identifying stable and meaningful patterns.

The three sample factors adopted for constructing sample L1 – country of residence, gender and age – were chosen because they are considered the ones with a high chance of being associated with cultural variability. Indeed, the country of residence is associated with institutional, linguistic and territorial differences; both age and gender are allegedly associated with variable positions and practices within societies. Moreover, the level of age implies different temporal frames of the participants' exposure to the cultural milieu.[27]

Table 4.1a-d shows sample L1's socio-demographic characteristics.

Taken as a whole, the distribution between age levels is homogeneous for the first three levels (27.5%, 27.1%, 26.2%, respectively for <31y, 31-45y, 46-60y); the oldest level is that with lower proportion (20.1%). Needless to say, due to its non-proportional structure, sample L1 is older than the European population (43.85 years [sd= 16,796 *vs.* 41.47]. Gender is homogeneously distributed (women: 50.8%) - roughly the same distribution (W=51.2%) as in the European population. The distribution of education levels is over-represented in the higher levels - lower secondary or lower levels (less than 10 years of education): 19.3%; upper secondary and post-secondary, non-tertiary (10-13 years): 18.3%; tertiary education (more than 13 years): 62.4%). It can be noted that majority of respondents lives in the same country they were born (84.0), it is married (61.6%) and has offspring (52.0%), whereas, less than one out three lives with the family of origin (28.7%), The sample was heterogeneous as to jobs, with students (14.5%), retired (12.7%), managers (10.1%), teaching professions (9.6%), as most frequent categories.

Table 4.1. Sample L1

a. *Gender * Age* Country*

Country	*Age*	*Gender*		*Total*	*Country*	*Age*	*Gender*		*Total*
		M	F				M	F	
Cyprus	<31	9	9	18	Italy	<31	9	9	18
	30-45	9	9	18		30-45	9	9	18
	46-60	9	9	18		46-60	9	9	18
	>59	4	9	13		>59	9	9	18
		31	36	67			36	36	72
Denmark	<31	9	9	18	Malta	<31	9	9	18
	30-45	9	9	18		30-45	9	9	18
	46-60	9	9	18		46-60	9	9	18
	>59	9	9	18		>59	1	2	3
		36	36	72			28	29	57
Germany	<31	9	9	18	Netherlands	<31	9	9	18
	30-45	6	9	15		30-45	9	9	18
	46-60	8	4	12		46-60	9	9	18
	>59	4	1	5		>59	9	9	18
		27	23	50			36	36	72

[27]. It is worth noting that we do not assume that the sources of variability adopted are actually effective. We only assume that they are the ones that have at least equivalent chances of being effective compared to alternative options (e.g. work occupation, education). The actual association between sample factors and cultural dimensions is a matter of empirical analysis, performed within the framework of the analysis of the reliability and construct validity of findings (see § 4.3.f).

Greece	<31	9	9	18	Spain	<31	9	9	18
	30-45	9	9	18		30-45	9	9	18
	46-60	9	9	18		46-60	9	9	18
	>59	9	9	18		>59	3	2	5
		36	36	72			30	29	59
Estonia	<31	9	9	18	UK	<31	9	9	18
	30-45	9	9	18		30-45	9	9	18
	46-60	9	9	18		46-60	9	9	18
	>59	9	9	18		>59	9	9	18
		36	36	72			36	36	72
France	<31	9	9	18		<31	99	99	198 (27.2)
	30-45	9	9	18		30-45	96	99	195 (26.8)
	46-60	5	9	14	Total	46-60	94	94	188 (25.8)
	>59	3	9	12		>59	69	77	146 (20.1)
		26	36	62			358 (49.2)	369 (50.8)	727 (100)

b. Education

Years	F	%
< 10	128	19.3
10-13	121	18.3
> 13	414	62.4
Tot	663	100
Missing	64	

c. Occupation		
	F	%
Student	90	14.5
Retired	79	12.7
Manager	63	10.1
Teaching professions	60	9.6
Clerical support workers	41	6.6
Health professionals	40	6.4
Legal. social. cultural and related professionals/technicians	39	6.3
Service and sales workers	36	5.8
Other professions	34	5.5
Not currently engaged in employment	30	4.8
Craft and related trade workers	29	4.7
Science and engineering associate professionals/technicians	25	4
Housewife	24	3.9
Plant and machine operators assemblers	12	1.9
Looking for first job	8	1.3
Skilled Agricultural, Forestry and Fishery workers	7	1.1
Armed forces occupations	5	0.8
Total	622	100

Missing	105	
Total	727	

Participants were involved between the first semester of the study (November 2015-April 2016) mainly – 74.2%; Danish and Dutch respondents were involved in the second semester (May-October 2016) (cf. Figure 4.2).

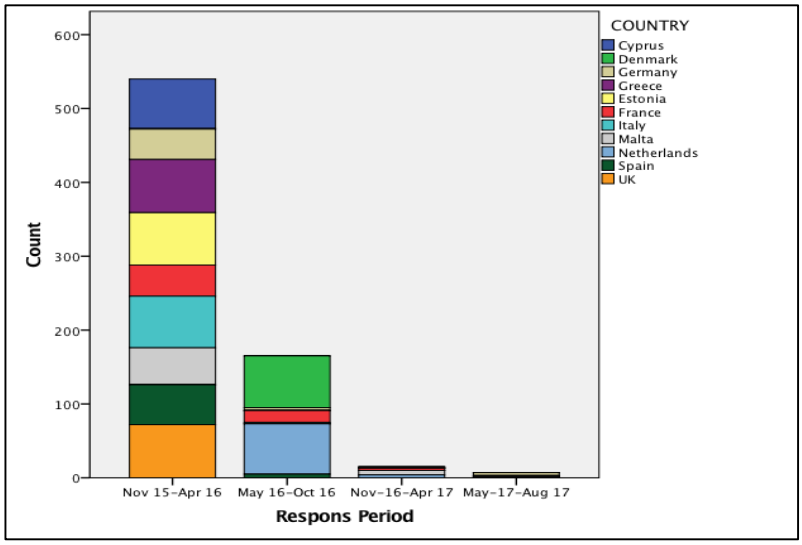


Figure 4.2. Distribution of L1 Sample over the period of response

L2 Sample

The L2 analysis is aimed at assessing the incidence of symbolic universes within the population. Accordingly, it required a sample constructed to maximise its representativeness. To this end, L2 analysis adopted proportional stratified samples (globally, N=4051), each of them focused on one country. All samples were defined in accordance to NUTS1*Sex*Age (4 levels - [<31/31-45/46-60//>60]). The proportion of cases for each layer was equated to that of the corresponding segment of population.

Due to the availability of data, it was possible to define samples for 8 countries: Cyprus, Denmark, Estonia, Greece, Italy, Netherlands, Spain, UK. [28] Table 4.2 shows the sample's distribution.

Table 4.2. L2 Samples

	Age/Sex	*<31 M*	*< 31 F*	*31-45 M*	*31-45 F*	*45-60 M*	*45-60 F*	*<60 M*	*<60 F*	*Tot*
Cyprus	N	12	12	11	15	12	12	4*	14	92
	% Samp.	13.04	13.04	11.96	16.30	13.04	13.04	4.35	15.22	
	% Pop.	11.89	11.65	12.74	14.77	11.54	12.27	11.78	13.35	
Denmark	N	79	99	91	84	83*	122	162*	138	858
	% Samp.	9.21	11.54	10.61	9.79	9.67	14.22	18.88	16.08	
	% Pop.	9.83	9.45	11.97	11.84	13.06	12.90	14.39	16.56	

[28]. In the cases of Denmark, Netherlands and UK the sample was built out by means of a direct random selection over the corresponding population. In the case of Estonia, Greece, Italy and Spain, the sample was obtained by means of a random selection from the Sample 0. In the latter cases, the number of respondents for each block was set by reason of the available data, in accordance to a criterion of optimization aimed at maximizing the extension of the sample. More particularly, for each of Estonia, Greece, Italy and Spain, the size of the sample was defined in accordance to the following two criteria: a) to obtain the biggest size of the sample; b) for at least 75% of the layers the difference between observed and expected proportion had to be less of |2.5|%.

Estonia		N	48	45	65	62	59	64	46	96	485
		% Samp.	0.10	0.09	0.13	0.13	0.12	0.13	0.09	0.20	
		% Pop.	0.10	0.09	0.13	0.13	0.12	0.13	0.11	0.20	
Greece	Northern Greece	N	6	6	9	9	9	10	11	14	74
		% Samp.	2.33	2.33	3.50	3.50	3.50	3.89	4.28	5.45	
		% Pop.	2.28	2.24	3.60	3.63	3.52	3.71	4.37	5.31	
	Greece Central	N	6	6	10	10	10	10	11	12	75
		% Samp.	2.33	2.33	3.89	3.89	3.89	3.89	4.28	4.67	
		% Pop.	1.95	1.87	3.29	3.13	3.15	3.20	4.09	4.73	
	Attiki	N	5	5	6	8	4	8	6	5	47
		% Samp.	1.95	1.95	2.33	3.11	1.56	3.11	2.33	1.95*	
		% Pop.	2.72	2.75	4.96	5.09	4.22	4.94	4.68	6.11	
	Aegean I. Crete	N	2	2	4	4	3	43	4	4	26
		% Samp.	0.78	0.78	1.56	1.56	1.17	1.17	1.56	1.56	
		% Pop.	0.96	0.87	1.45	1.48	1.25	1.30	1.47	1.69	
										Tot	222
Italy	Northern Western	N	3	9	9	25	8	18	9	4*	85
		% Samp.	0,67	2,01	2,01	5,59	1,79	4,03	2,01	0,89	
		% Pop.	1.83	1.75	3.34	3.28	3.59	3.64	4.05	5.21	
	Northern Eastern	N	9	10	18	18	6	5	3	7	76
		% Samp.	2,01	2,24	4,03*	4,03*	1,34	1,12	0,67	1,57	
		% Pop.	1.32	1.28	2.42	2.39	2.62	2.64	2.88	3.67	
	Centre	N	11	10	19	19	20	21	22	26	148
		% Samp.	2,46	2,24	4,25	4,25	4,47	4,70	4,92	5,82	
		% Pop.	1.41	1.35	2.50	2.55	2.62	2.78	2.99	3.83	
	Southern	N	15	15	22	22	22	19	12	0*	127
		% Samp.	3,36	3,36	4,92	4,92	4,92	4,25	2,68	0,00	
		% Pop.	2.05	1.97	2.88	2.92	2.95	3.13	3.17	3.93	
	Islands	N	0	1	3	4	2	1	0	0	11
		% Samp.	0,00	0,22	0,67	0,89	0,45	0,22	0,00	0,00	
		% Pop.	0.96	0.91	1.38	1.38	1.42	1.50	1.57	1.95	
										Tot	447
Netherlands	Northern Netherlands	N	5	18	11	20	9	19	15	20	117
		% Samp.	0.47	1.70	1.04	1.89	0.85	1.79	1.42	1.89	
		% Pop.	1.02	0.96	1.20	1.16	1.49	1.48	1.65	1.20	
	Eastern Netherlands	N	21	19	27	31	25	28	25	38	214
		% Samp.	1.98	1.79	2.55	2.92	2.36	2.64	2.36	3.58	
		% Pop.	2.09	1.99	2.58	2.58	3.12	3.08	3.10	2.31	
	Western Netherlands	N	40	51	70	57	72	72	57	71	490
		% Samp.	3.77	4.81	6.60	5.38	6.79	6.79	5.38	6.70	
		% Pop.	4.85	4.88	6.22	6.31	6.75	6.74	6.62	5.01	
	Southern Netherlands	N	21	22	33	25	37	38	43	20	239
		% Samp.	1.98	2.08	3.11	2.36	3.49	3.58	4.06	1.89	
		% Pop.	2.08	1.95	2.56	2.51	3.28	3.23	3.47	2.52	
										Tot	1060
Spain	Comunid. de Madrid	N	2	2	4	4	3	3	0	1	19
		% Samp.	1,60	1,60	3,20	3,20	2,40	2,40	0,00	0,80	
		% Pop.	1.03	1.05	2.11	2.15	1.73	1.86	1.57	2.13	
	Noroeste	N	1	1	2	2	2	2	0	0	10
		% Samp.	0,80	0,80	1,60	1,60	1,60	1,60	0,00	0,00	
		% Pop.	0.62	0.60	1.31	1.29	1.26	1.30	1.48	1.93	
	Noreste	N	1	1	2	2	0	2	2	0	10
		% Samp.	0,80	0,80	1,60	1,60	0,00	1,60	1,60	0,00	
		% Pop.	0.66	0.64	1.36	1.30	1.30	1.30	1.38	1.73	
	Centro	N	2	2	1	3	2	3	0	0	12
		% Samp.	1,43	1,35	0,80	2,34	1,60	2,40	0,00	0,00	
		% Pop.	0.96	0.91	1.68	1.58	1.68	1.60	1.78	2.14	
	Este	N	2	4	8	8	7	7	1	1	38

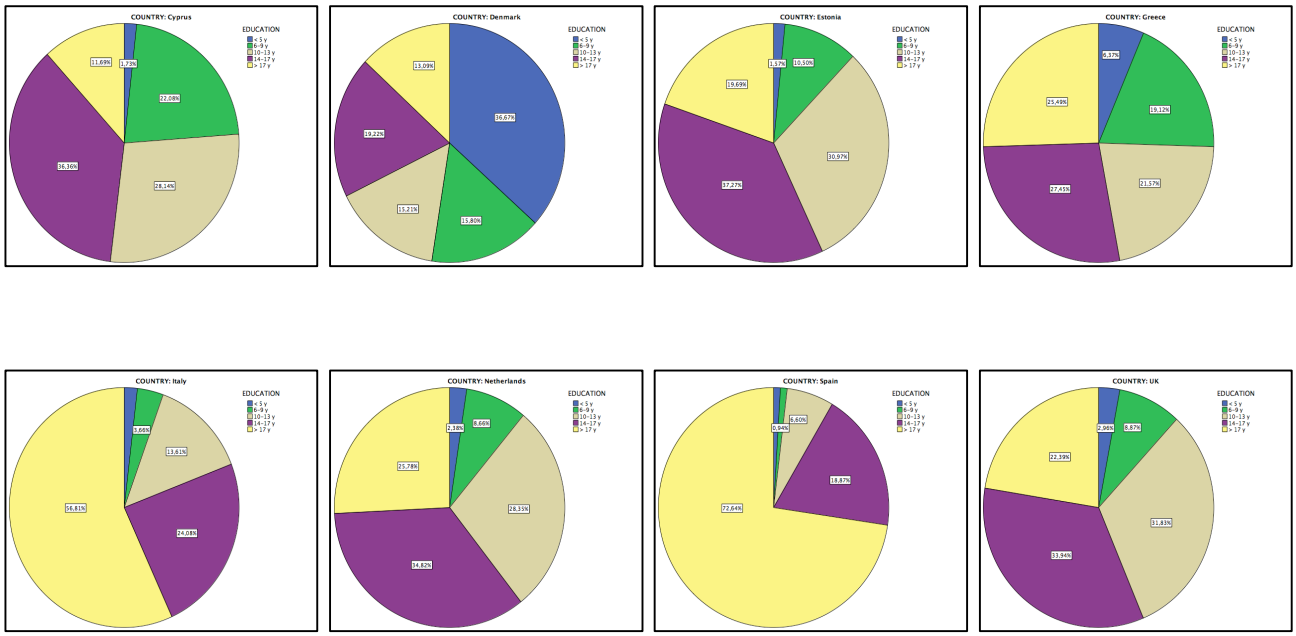
		% Samp.	1,60	3,20	6,51	6,29	5,59	5,59	0,80*	0,80*	
		% Pop.	2.19	2.15	4.38	4.23	3.76	3.76	3.71	4.63	
	Sur	N	3	3	6	6	4	5	0	0	28
		% Samp.	2,78	2,67	4,78	4,60	3,20	4,17	0,00	0,00*	
		% Pop.	1.87	1.79	3.21	3.09	2.80	2.80	2.46	3.04	
	Canarias	N	1	1	1	1	1	1	1	1	8
		% Samp.	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	
		% Pop.	0.39	0.39	0.73	0.71	0.65	0.63	0.52	0.61	
										Tot	125
United Kingdom	East Midlands	N	9	8	2	11	12	9	9	3	63
		% Samp.	1.17	1.04	0.26	1.44	1.57	1.17	1.17	0.39	
		% Pop.	0.72	0.69	0.83	0.85	0.93	0.95	1.04	1.19	
	East of England	N	10	5	4	12	11	12	7	5	66
		% Samp.	1.31	0.65	0.52	1.57	1.44	1.57	0.91	0.65	
		% Pop.	0.87	0.83	1.13	1.16	1.19	1.22	1.35	1.57	
	Greater London	N	7	10	10	10	9	9	10	4	69
		% Samp.	0.91	1.31	1.31	1.31	1.17	1.17	1.31	0.52	
		% Pop.	1.57	1.60	2.19	2.12	1.48	1.52	1.18	1.42	
	North East England	N	3	6	7	15	10	6	9	6	62
		% Samp.	0.39	0.78	0.91	1.96	1.31	0.78	1.17	0.78	
		% Pop.	0.42	0.40	0.45	0.47	0.53	0.55	0.59	0.69	
	North West England	N	6	8	10	11	8	7	6	7	63
		% Samp.	0.78	1.04	1.31	1.44	1.04	0.91	0.78	0.91	
		% Pop.	1.12	1.10	1.31	1.33	1.41	1.45	1.53	1.77	
	Northern Ireland	N	7	10	6	12	11	9	5	2	62
		% Samp.	0.91	1.31	0.78	1.57	1.44	1.17	0.65	0.26	
		% Pop.	0.29	0.28	0.35	0.37	0.36	0.37	0.34	0.41	
	Scotland	N	9	5	9	9	6	12	7	6	63
		% Samp.	1.17	0.65	1.17	1.17	0.78	1.57	0.91	0.78	
		% Pop.	0.83	0.83	0.97	1.02	1.10	1.16	1.15	1.39	
	South East England	N	2	11	10	10	11	7	9	3	63
		% Samp.	0.26	1.44	1.31	1.31	1.44	0.91	1.17	0.39	
		% Pop.	1.29	1.24	1.66	1.72	1.78	1.81	1.93	2.27	
	South West England	N	6	10	10	7	7	10	10	3	63
		% Sa	0.78	1.31	1.31	0.91	0.91	1.31	1.31	0.39	
		% Pop.	0.80	0.75	0.93	0.95	1.08	1.11	1.34	1.57	
	Wales	N	2	10	5	14	12	6	11	2	62
		% Samp.	0.26	1.31	0.65	1.83	1.57	0.78	1.44	0.26	
		% Pop.	0.49	0.47	0.53	0.54	0.60	0.63	0.73	0.85	
	West Midlands	N	6	10	9	11	11	5	8	7	67
		% Samp.	0.78	1.31	1.17	1.44	1.44	0.65	1.04	0.91	
		% Pop.	0.91	0.88	1.05	1.06	1.10	1.12	1.22	1.42	
	Yorkshire and the Humber	N	9	11	5	8	11	8	8	3	63
		% Samp.	1.17	1.44	0.65	1.04	1.44	1.04	1.04	0.39	
		% Pop.	0.88	0.85	0.98	0.99	1.05	1.07	1.14	1.33	
										Tot	766

* Population-sample difference >> |2,5|%

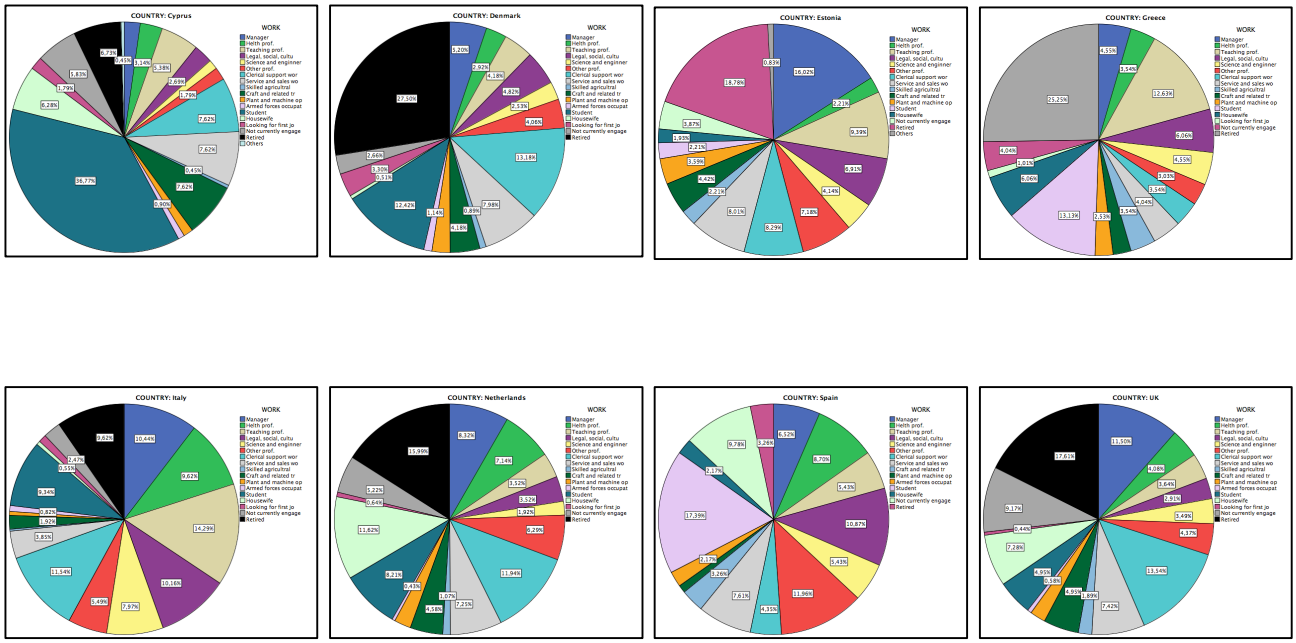
In 3 out 8 countries (Estonia, Netherlands, UK) observed and expected proportion were close for all layers (< |2.5|%); in the case of Cyprus, Greece, difference was higher than |2.5|% in 1 layers only; in the case of Denmark in 2 layers, in Spain in 3 layers, in Italy in 4 layers (cf. Table 4.2). Taken as a whole, the sample resulted not fully represented in the oldest level of age.

Figure 4.2 shows the socio-demographic characteristics of 8 samples. A rather high variability can be observed among them. In most countries (with the exception of Cyprus and above all Denmark) sample shows high level of education – this is true more specifically for Italy and Spain, where respectively about 80% and 90% of respondents has tertiary education. Samples show to be

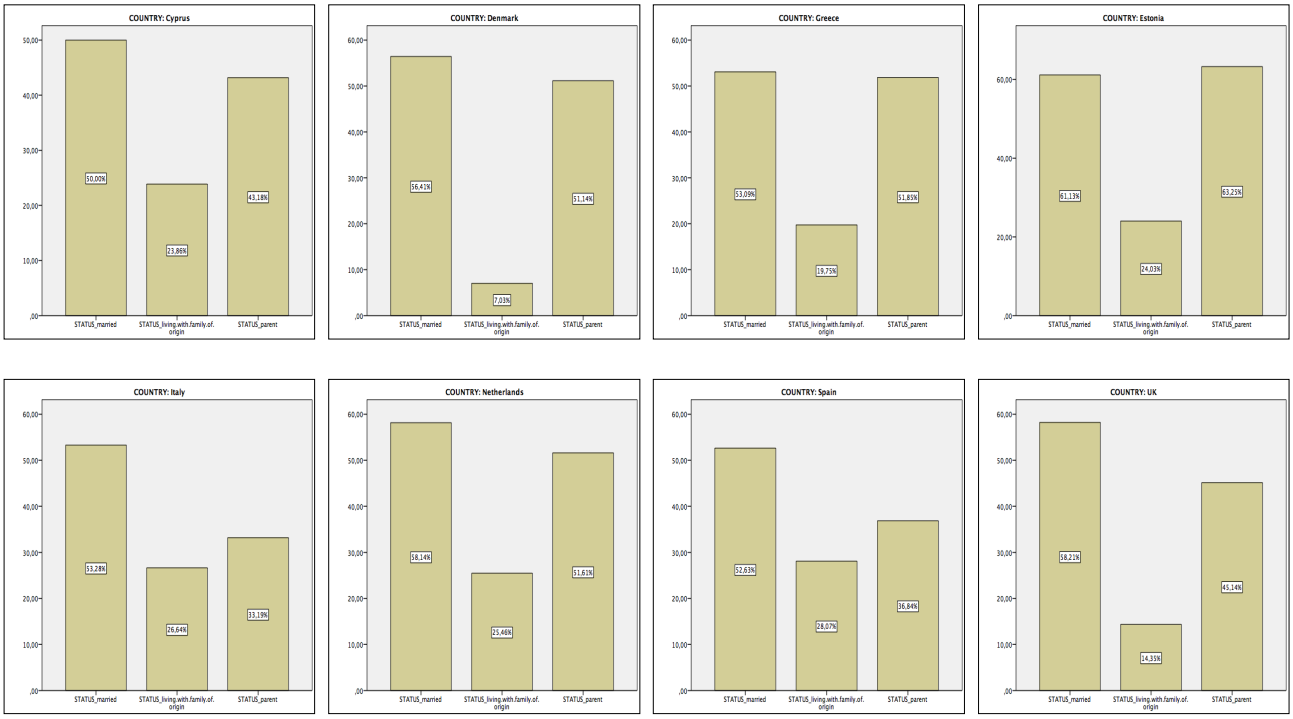
heterogeneous both within them and with each other as to occupation. The proportion of respondents being married is similar among countries – between 50% (Cyprus) and 61,3% (Estonia). The proportion of respondent being parent varies between 33,1% (Italy) and 63.25% (Estonia). Respondents living with the family of origin vary from 7,03 (Denmark) and 28,07 (Spain).



a. Education



b. Employment



c. Other characteristics

Figure 4.3. L2 Samples' socio-demographic characteristics

4.3.d. <u>Instrument</u>

The Re.Cri.Re. analysis of symbolic universes is based on the VOC questionnaire (*View of Context*). VOC is a 68-item questionnaire that maps how people represent affective-laden, significant aspects of their life and context.

The items are organized in one of the two following ways: (a) some items are associated with a four-point Likert scale without intermediate alternatives, purposely chosen as a way of 'forcing' the responses towards oppositional modes of response; (b) other items are associated to alternative, contrasting responses among which the respondent is asked to chose (the English verison of the VOC questionnaire is reported in Annex 1).

The questionnaire is integrated by a set of variables aimed at collecting information on respondents and the social context they are part of (socio-demographic characteristics, civil status, size of the family nucleus, place of birth and living, self-evaluation of current health, involvement in volunteer community activities). Following items were also inserted in the online version_

a) An item of the online questionnaire asked respondent to indicate the email address of persons that according to her/his view could be interested in being involved in the survey – this was done as a way of increasing the chances of snowball sampling.
b) How the respondent heard about the survey (this item was inserted in order to perform a II level analysis of the social network the respondents belong to; output of this analysis are not reported in the Deliverable).
c) An item was inserted to collect the respondent's email address, in case she/he wanted to receive the final report of the analyses.

Previous versions of the questionnaire have been used for the last 20 years with the aim of analysing the cultural milieu characterizing specific domain of activities (school: Carli, Paniccia, 2001; higher education: Venuleo, Mossi, Salvatore, 2016; organizations: Carli, Paniccia, 1999a; 2011; health: Venezia, 2016; local community: Mannarini et al, 2012; local development: Carli & Pagano, 2008; Fini et al., 2011; as well as the cultural frame of the representation of social objects - e.g. the profession of psychologist: Carli, Salvatore, 2001; Carli et al. 2004; urban mobility: Carli

& Paniccia, 1999b; risks in the workplace: Carli et al., 2012; gambling: Venuleo & Salvatore, 2008). Compared to these previous versions, VOC is shorter and more generalized, focusing on the analysis of how the context – in the sense of experience of the world as a whole – is interpreted. Previous studies conducted on Italian versions of the questionnaire have shown a satisfactory construct validity of the questionnaire (Carli, Salvatore 2001; Mannarini et al. 2012) as well as the satisfactory level of inner consistency (Alfa value = 0.74, cf. Venuleo, Mossi, Salvatore, 2016).
Currently, VOC is implemented in 11 language versions (Brazilian, Bulgarian, Danish, Dutch, Estonian, English, French, German, Greek, Italian, Japanese, Portuguese, Russian Spanish). Each language version was produced by means of translation from the English version followed by back translation.

Box 6. VOC questionnaire

The questionnaire items were constructed on the grounds of a methodology integrating psychoanalytic and psycho-cultural standpoints (Carli, Paniccia, 1999a; Guidi & Salvatore, 2013; Mannarini et al, 2012; Osgood, Suci & Tannenbaum, 1957; Salvatore & Venuleo, 2013; Salvatore & Zittoun, 2011) aimed at detecting the oppositional structures underpinning the modes of interpreting the reality. According to this methodology, items are aimed at facilitating the expression of perceptions/opinions/judgments concerning the micro- and macro-social environment (e.g. evaluation of the place where the person lives, level of trustworthiness of social structures) and social identity (e.g. moral judgments on critical social behaviours) and in so doing to trigger the activation of generalized meanings. Four characteristics of the items contribute to this purpose.
First, items spread over a plurality of levels and objects of experience (e.g. institutions, quality of life, sense of empowerment, future, rules, interpersonal bonds). Consequently, only meanings that due to their generalized valence are not contingent to the different domains of experience can combine with each other in significant patterns.
Second, most of the items are formulated with generic reference (e.g. your future, your life). This is so because when a person is asked to connote an object, the more the object is characterized by specific characteristics, the more such characteristics will constrain the way of interpreting it; on the contrary, the less specifically the object is defined, the greater the probability that it will work as a projective stimulus, triggering emotional forms of connotation.. For instance, if one is asked to answer the question "what colour is your car?" an emotional component of connotation will hardly be activated. Instead, if one is asked to answer to the question "how will your future be?", the very fact that one has to image one's own future implies an emotional connotation, namely the enactment of quite a generalized class of meaning that can make one aspect of the issue pertinent with respect to the infinite set of potentially relevant elements and aspects (Matte Blanco, 1975; Salvatore & Freda, 2011).
Third, items are designed to go beyond the mere description of states of things. Rather, most items are invitations to assume a position with respect to burning issues, identity-sensitive matters, which are open to contrasting ideological and value-laden options. For instance, the item "my life depends on my action" is not a matter of description of a fact, but a stimulus that pushes one to take a position on different ideological, identity, value and affective-laden options.
Fourth, items are associated to response modes that force the respondent further to take a stance with respect to contrasting positions. This makes the structure of the response isomorphic to the oppositional structure of the dimensions of sense that we intend to detect. As to the latter point, it is worth highlighting that according to the rationale grounding the construction of items, the alternative response modes have not been selected with the aim of covering the highest representative meanings associable with the objects-stimuli, but to work as 'bait' of a corresponding connotation of the object. To give an example, each response offered to the item 'In your opinion, to succeed in life, how important is' has been defined for the sake of triggering one or a plurality of allegedly generalized meaning - e.g. power ("forming alliance with stronger"),

conformism (‘adjusting to main trends’), commitment/achievement (‘to understand the world), opportunism/reactivity (“to have few scruples”), and so forth.

4.3.e. Procedure

The analysis was based mainly an on-line survey (93.8.7% of sample 0 [6762 out 7207]) is composed of respondents to the on-line version of the questionnaire). Versions of the questionnaire were uploaded on an ad hoc webpage, which was accessible both directly (www.okokok.info) and through the webpage of the Re.Cri.Re. project (www.recrire.eu).

The respondent can freely choose the language version by clicking on the relative flag; in order to load the right language, the system keeps the right data (all the necessary strings) dynamically querying its database.

The online survey consists of seven pages. The first page contains the presentation of the questionnaire (aims, context of the study, modality of answering); the second one contains a set of items aimed at identifying the basic characteristics of respondents (gender, age, place of living); these are mandatory fields. The following three pages are related to the sections named “THE PLACE WHERE YOU LIVE” (one page) and “SOCIAL CONTEXT” (two pages). The sixth page (MY SELF section) is aimed at collecting responses about the participants’ view of themselves and their future. The seventh page concerns the collection of descriptive variables (e.g. level of education, status, work). By clicking on the “Next” button of the first page, the respondents voluntarily agree to participate in the survey; this represents informed consent.

Respondents could shift to page 3 only after filling in the mandatory fields (age, sex, country, regional area and locality of living). This was done in order to have data for drop-out analysis.

The platform of the online questionnaire records in its database the start and end date of completion in addition to all the info entered by respondents.

The procedure requires that respondents fill out the entire questionnaire in a single session and it does not allow them to restart the completion of the questionnaire later; consequently, data for the identification of the respondent are not recorded.

In case it was required, the language version of the questionnaire was uploaded only once the Ethical Clearance of the corresponding Country had been acquired.

4.3.f. Data Analysis

L1 Analysis. The map of the European semiotic field

The Sample L1 respondents*answers data set underwent Multiple Correspondence Analysis (MCA). MCA is a method for mapping relations that are active within the dataset in a parsimonious way. These relations are summed up in terms of a limited number of synthetic bipolar variables(called factorial dimensions or factors), which explain a decreasing proportion of variability progressively: this means that a limited number of factorial dimensions retains the greatest amount of the information contained initially in the dataset (Benzecri, 1992, Blasius & Greenacre 1998; Lebart, Morineau & Warwick 1984).

Each factorial dimension extracted by the MCA describes the juxtaposition between two patterns of co-occurring response modalities across respondents, namely two response patterns that, within the dataset, exclude each other. According to the methodological framework adopted, and consistently with other authors (see, for example, Landaeur, Foltz, and Laham 1998; Lebart, Salem & Berry 1998), we see *each factorial dimension as the marker of a latent dimension of sense, namely of a line of semiotic force.*

After applying MCA, Cluster Analysis (CA) - hierarchical classification method – was carried out, in order to identify the response profiles that were active in the dataset, each one associated with a different group of individuals. The identification of profiles was based on the criterion of

maintaining the maximum similarity between the response profiles grouped in the same cluster and identifying the maximum difference in the response profiles among different clusters. In our case the similarity/dissimilarity criterion is given by the main factorial dimensions extracted by the previous MCA. Each cluster produced by the Cluster Analysis consists of a specific profile of individual responses, namely a pattern of responses that tend to co-occur redundantly over the sample. Thus, on the grounds of the methodological framework adopted, each cluster was interpreted as the marker of a symbolic universe, associated with a certain group of respondents characterized by that response profile.
Due to the fact that CA uses the factorial dimensions provided by the previous MCA as criteria of similarity/dissimilarity, it was possible to calculate the level of association between each cluster and each factorial dimension - i.e. the coordinate of the cluster over the factorial dimensions (More precisely, factor coordinates of a cluster correspond to factorial scores of that cluster's prototypical subject).

In sum, the procedure of data analysis consisting of the combination of MCA and CA led to the following outputs:

A) The identification of the factorial dimensions, each of them detecting an oppositional linkage among patterns of modalities of answer the survey.
B) For each respondent, the vector computing the degree of association she/he maintains with each factorial dimension (these vectors are used in the following steps – A2 and A3 - of the synchronic analysis, cf. § 5 and § 6).
C) The factorial space, represented by the orthogonal combination of factorial dimensions; the projection of the objects (i.e. respondents, illustrative and active variables) on it (as a function of the factorial coordinates) allows for a better description of both variables and factors. The factorial space is interpreted as the geometrical model of the semiotic space.
D) The identification of the clusters of response modes that tend to co-occur within and between respondents. For each cluster, Cluster Analysis calculates the representative response profile. Each cluster is seen as the marker of a symbolic universe; the response profile characterizing it is interpreted accordingly.
E) The attribution of each respondent to the cluster (i.e. the symbolic universe) that is the most similar to the individual response profile observed.
F) The projection of the clusters onto the factorial space, and the consequent possibility of understanding the similarity/dissimilarity among them in terms of the position within the factorial space. Moreover, the analysis of the position opens up a further level of analysis: the possibility of interpreting the cluster in terms of the relevance that the factorial dimensions play in it, namely in terms of how each symbolic universe emerges from the interplay of a certain set of underpinning lines of semiotic force.

Box 7. Multiple Correspondence Analysis

Two aspects of the MCA are worth highlighting, given that they will be involved in the analysis of the output.
First, MCA distinguishes between active and illustrative variables. Active variables are the ones used for extracting the factorial dimensions. In the context of the analysis of the symbolic universe, they consists of the response modes obtained from the 68 items of the VOC questionnaire. Illustrative variables are further variables that are not used in extracting the factorial dimensions, but are associated to the factor dimensions once the latter are extracted. In so doing a combination of three purposes is pursued: a) illustrative variables may provide further clues that are useful in the interpretation of the factorial dimension; and/or b) illustrative variables can integrate the description of the factors in terms of the relevance of certain contextual characteristics associated with them (characteristics considered relevant, yet for theoretical and methodological motivations viewed as not being inherent to the factorial dimension – e.g. gender,

education, employment); c) the illustrative variable is considered an element that can be understood better in the light of its association with the factorial dimensions.
Second, MCA assesses the level of association between each factor and also each row and column of the matrix - namely with respondents and items (both in terms of force of the association and statistical significance). Thanks to this, factorial dimensions can be represented geometrically: each factor is interpretable as an axis with the position (i.e. the factorial coordinate) of objects (i.e. the position of any respondent and any item on it) being indicative of the level of association between the factorial polarity and objects (the higher the absolute value of the coordinate, namely the nearer the position of the object on the factorial polarity, the higher the association, therefore the relevance of the item in defining the meaning of the factor or the representativeness of the respondent's profile of response with respect to the factorial polarity). Accordingly, the orthogonal combination of the *n* axes extracted by the MCA produces a geometrical space composed of *n* factorial dimensions (axes are combined orthogonally with each other because the computational procedure adopted by the MCA makes them independent with each other) Each point on this space also has *n* coordinates. Accordingly, the position of any object (i.e. any item and any respondent) on the factorial space geometrically describes the object in terms of the associations the object maintains with the MCA factorial dimensions. From the fact that each factorial dimension is interpreted as the marker of a latent semiotic force, it follows that the factorial space has to be considered the geometrical model of the semiotic space.

Analysis of reliability and validity

The reliability of the L1 map of the European semiotic field was assessed by means of the following 2 procedures, aimed at estimating the independency of the MCA output from the sampling procedures and modality of application, respectively.
First (R1) in order to test the aspect of the reliability concerning the independence of findings from sampling procedures, we adopted a bootstrapping-like logic. Accordingly, the outputs of a series of analyses, each of them applied on a different subsample extracted randomly from the Sample L1 were compared. More specifically, we randomly extracted 10 control samples (N=727) from the Sample L1. Then, we repeated the same L1 multidimensional analyses (MCA and AC) on each of these control samples (all MCA adopted the same parameters used for L1 analysis). Finally, the L1 outputs (i.e. the three factorial dimensions extracted by the Multidimensional Correspondence Analysis and the 5 response profiles characterizing the clusters obtained from Cluster Analysis) were compared with the corresponding outputs of each control subsample. To this end 3 kinds of parameter were used:

a) For each L1 factorial dimension, we calculated the correlation between coordinates of significant items on factorial dimensions and the coordinates that these items have on the corresponding factorial dimension extracted from each control sample. . It is worth noting that each comparison focused only on items that were significant on the L1 factorial dimension under analysis. This is so because the adoption of a more generalized criterion – namely, the extension of the comparison to the whole set of items - it would have affected the esteem, given that only a limited subset of items are associated significantly with each factor; therefore if the correlation had been applied to the whole set of items, this would have reduced the co-variance between the two series. On the other hand, our more conservative choice is consistent with the aim of the analysis, which is to see if the pattern of items characterizing each L1 factorial dimension is present in the control samples too.
b) For each cluster extracted from L1 Cluster Analysis we calculated the percentage of coverage of the list of items characterizing it and the list of items characterizing the corresponding cluster extracted from each control subsample.

Second (R2), the comparison between on-line surveys and pen and pencil survey was performed in order to test the reliability in terms of the independence of outputs from the modality of application. ANOVA and chi square tests were used for this purpose.

The validity of the analysis had a twofold aim. On the one hand, it focuses on the psychometric quality of the instrument adopted – the VOC questionnaire – and more specifically on the consistency between the theoretical approach adopted and characteristics of the symbolic universes detected. Framework, design and findings of the analysis represent the content of a scientific paper, currently under review for publication. On the other hand, the focus was on the validity of interpretations of L1 outputs and it was assessed by means of the following procedure of analysis (for a discussion on the rationale of this set of analyses, see Salvatore et al, 2012, 2015). Blind judges were asked to assess the validity of the factorial dimensions' interpretation. More specifically, a group of 15 judges – junior and senior researchers with middle to high competence in the interpretation of MCA output in accordance to the SCPT framework – were given the MCA output (i.e. the content of the table 4.5) and the interpretation of 5 factorial dimensions: three of them were those adopted in the study; the others were defined ad hoc, on the basis of the literature, in order to serve as a plausible interpretation of the MCA output. The control interpretations were the following:

Idealization vs. *Negotiation*

Polarity (-). *Idealization*

This polarity is characterized by extreme responses. The context is seen as highly reliable, like well as the institutions and relationships. This promotes the idea that you can invest in it and you feel the power to control your own existence. The present is fine, like the future, which will be definitely better. The pole expresses appreciation and confidence in one's ability to make a commitment. The extreme modality of the responses draws a sort of axiomatic claim, as if the investment in one's own agency were the expression of a process of idealization, reflecting the intensity of one's desire and commitment.

Polarity (+). *Negotiation*

This polarity is characterized by intermediate value responses. The future will be worse than the present, and life presents unforeseen and accidental events. Nevertheless, one feels part of one's life context, which one hopes to be able to improve. One feels one can influence reality, even if the institutions are sometimes not entirely reliable, and there are power groups. The set of intermediate responses can be interpreted as the expression of engagement with the world where agency is modulated by the recognition of the constraints of reality

Moderation vs *Reactivity*

Polarity (-). Moderation

The polarity is characterized by intermediate responses. It is expected that the future will go a bit worse; one feels quite responsible for what happens and at the same time is also subject to the power of others and to chance. Institutions are both reliable and unreliable, like people, whom sometimes you can trust and sometimes not. The presence of answers with the opposite content and/or value leads us to interpret this polarity as a marker of a way of perceiving experience marked by a moderating attitude, which is reflected in the tendency to modulate one's judgements and attitudes towards the objects.

Polarity (+). *Reactivity*

The polarity is characterized by extreme responses, sometimes contradictory: life is controlled by powerful people and by fate, but the chance to influence reality is still high. People are unable to change, they cannot be trusted and, at the same time, strangeness is seen as a source of great enrichment. The institutions are completely unreliable, yet, sometimes, also very reliable. In this case too, the extreme response modes are associated with responses that on the whole are inconsistent and sometimes contradictory. As a result, this pole is likely to be interpreted in terms of extremism, which seems to reflect a reactive attitude towards experience, regardless of its quality, positive or negative.

Next, judges (who were blind with respect to the interpretations adopted by the study) were asked to assess, for each factorial dimension, the level of validity of each interpretation- a 6-point Likert scale was used for this purpose. Finally, the t-test (paired difference) was calculated for each pair of interpretations, so as to compare the level of validity of the interpretation adopted with all the others.

It is worth noting that several findings obtained from different areas and lines of investigation will be discussed below due to their being further indirect sources of validation.
First, the analysis of the association between cultural dimensions and socio-ecological and psychological constructs (see Part II) provides data that can be used for validating L1 outputs. In the same vein, in the context of the micro-genetic analysis a study of the way symbolic universes foster a situated process of thinking and speaking provides a further source of validation. These analyses provide the way of checking whether the relations between symbolic universes and psychological and social factors are consistent with those one can expect to find on the basis of SCPT.
Second, a qualitative meta-analysis has been carried out in the context of the topic analysis (cf. § 7) in order to compare lines of semiotic force identified at the L1 level and the semantic structures identified by topic analyses. This analysis provides elements to check the trans-domain generalizability of the map of the European semiotic field, as expected on the basis of SCPT.
Finally, the comparision between the position of symbolic universes observed on the semiotic phase space (i.e. the position detected by the output of the statistical analysis) and the theoretical position (i.e. the position identified on the basis of the content of the interpretations of both the line of semiotic forces and symbolic universes performed by blind judges) provides a further source of validation.

Line 2. Description of the segments of population associated with symbolic universes and assessment of their incidence in European countries
Each subject of sample 0 was classified in accordance to the most similar symbolic universe. To this end, sample 0 respondents were considered "illustrative individuals", in the sense that they did not contribute to the building of the cluster, but they were attributed to the clusters once the latter were formed.
On this basis, the distribution of symbolic universes was studied within each territorial area, in terms of the frequency of the corresponding segments of population. Moreover, the description of the segments was carried out in terms of their socio-demographic profiles. Univariate and chi-square analyses were used for this purpose.

4.4. Results

In this section the output of the Multiple Correspondence Analysis (MCA) and Cluster Analysis (CA) are reported and discussed. More particularly, 4 sets of results are presented:

a) The semiotic field of the European sample, namely the 3 main factorial dimensions extracted by the MCA and their interpretation in terms of lines of semiotic force (Line 1 analysis).
b) Symbolic universes of the European sample, namely the 5 clusters emerging from the AC and their interpretation (Line 1 analysis).
c) The analysis of reliability of the Line 1 output (R1-R4 analyses) as well as the validity of their interpretation
d) The socio-demographic characterization of segments of population associated with symbolic universes and their incidence in European countries (Line 2 analysis).

4.4.a. Line 1 analysis. The semiotic field of the European sample (point a)

Table 4.3a-c shows the description of the 3 main factorial dimensions extracted by the MCA. These three factorial dimensions correspond to 35.4% of the inertia of the whole matrix (respectively 19.9%, 10.9% 4.6%).[29]

Table 4.3. L1 analysis. MCA output

a. Factorial Dimension 1

N	*Items*	*Modalities*	*Coord.*
F1.1	RELIABILITY AGENCIES-Public Administration	Very	-0.72
F1.2	AGREEMENT-These days a person doesn't really know whom he can count on	strongly disagree	-0.66
F1.3	RELIABILITY AGENCIES-Health care services	Very	-0.65
F1.4	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	quite disagree	-0.63
F1.5	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	quite disagree	-0.62
F1.6	AGREEMENT-These days a person doesn't really know whom he can count on	quite disagree	-0.59
F1.7	RELIABILITY AGENCIES-Police	Very	-0.59
F1.8	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	strongly disagree	-0.58
F1.9	RELIABILITY AGENCIES-Companies	Very	-0.56
F1.10	RELIABILITY AGENCIES-Public transport	Very	-0.53
F1.11	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	strongly disagree	-0.48
F1.12	AGREEMENT-It is not possible at all to make any provision about the future	quite disagree	-0.47
F1.13	BEHAVIOUR DEPENDS ON_The need to make sense of experience	Yes	-0.45
F1.14	RELIABILITY AGENCIES-Schools	Very	-0.42
F1.15	AGREEMENT-My life is chiefly controlled by powerful others	quite disagree	-0.40
F1.16	RELIABILITY AGENCIES-Public Administration	Quite	-0.36
F1.17	AGREEMENT-It is not possible at all to make any provision about the future	strongly disagree	-0.36
F1.18	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly disagree	-0.35
F1.19	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	quite disagree	-0.34
F1.20	FUTURE WILL BE	A little better	-0.33

[29]. The inertia associated with each factor was calculated in accordance to the Benzecrì's simplified formula of revaluation ($\lambda^*=\lambda^2$)- where λ stands for the factorial dimension's eigenvalue and λ^* is the revaluated eigenvalue.

F1.21	AGREEMENT-People are unable to change	strongly disagree	-0.32
F1.22	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	quite disagree	-0.32
F1.23	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly disagree	-0.31
F1.24	PLACE YOU LIVE NEXT 5 YEARS	quite better	-0.30
F1.25	BEHAVIOUR DEPENDS ON-Shared values	Yes	-0.29
F1.26	AGREEMENT-Those who succeed in life have luck on their side	quite disagree	-0.29
F1.27	AGREEMENT-It is useless to bustle, since you cannot affect what will be	quite disagree	-0.27
Central zone			
F1.38	AGREEMENT-My life is chiefly controlled by powerful others	quite agree	0.32
F1.39	WELLBEING-Not suffering	Yes	0.35
F1.40	RELIABILITY AGENCIES-Police	not very	0.37
F1.41	RELIABILITY AGENCIES-Companies	not very	0.37
F1.42	BEHAVIOUR DEPENDS ON-The need to defend one's reputation	Yes	0.38
F1.43	RELIABILITY AGENCIES-Public transport	not very	0.40
F1.44	PLACE YOU LIVE NEXT 5 YEARS	quite worse	0.40
F1.45	AGREEMENT-My life is determined by my own actions	quite disagree	0.47
F1.46	BEHAVIOUR DEPENDS ON-Economic interest	Yes	0.47
F1.47	TO SUCCEED IN LIFE-Forming alliances with stronger people	Very	0.53
F1.48	TO SUCCEED IN LIFE-Adjusting to the main trends	Very	0.54
F1.49	AGREEMENT-My life is determined by my own actions	strongly disagree	0.55
F1.50	RELIABILITY AGENCIES-Public transport	not at all	0.57
F1.51	RELIABILITY AGENCIES-Health care services	not very	0.59
F1.52	AGREEMENT-Immigrants are a source of cultural enrichment	strongly disagree	0.60
F1.53	RELIABILITY AGENCIES-Schools	not very	0.64
F1.54	TO SUCCEED IN LIFE-Understanding the world	not at all	0.66
F1.55	TO SUCCEED IN LIFE-Having a few scruples	Very	0.79
F1.56	TO SUCCEED IN LIFE-Sharing	not at all	0.84
F1.57	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	strongly agree	0.88

F1.58	TO SUCCEED IN LIFE-Following rules	not at all	0.94
F1.59	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly agree	0.95
F1.60	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	strongly agree	1.01
F1.61	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	strongly agree	1.02
F1.62	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	strongly agree	1.14
F1.63	AGREEMENT-Those who succeed in life have luck on their side	strongly agree	1.15
F1.64	AGREEMENT-These days a person doesn't really know whom he can count on	strongly agree	1.21
F1.65	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly agree	1.25
F1.66	RELIABILITY AGENCIES-Police	not at all	1.28
F1.67	AGREEMENT-My life is chiefly controlled by powerful others	strongly agree	1.29
F1.68	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly agree	1.33
F1.69	RELIABILITY AGENCIES-Public Administration	not at all	1.34
F1.70	AGREEMENT-People are unable to change	strongly agree	1.37
F1.71	AGREEMENT-It is not possible at all to make any provision about the future	strongly agree	1.38
F1.72	RELIABILITY AGENCIES-Health care services	not at all	1.40
F1.73	FUTURE WILL BE	Far worse	1.47
F1.74	RELIABILITY AGENCIES-Companies	not at all	1.66
F1.75	RELIABILITY AGENCIES-Schools	not at all	1.81
F1.76	PLACE YOU LIVE NEXT 5 YEARS	much worse	1.90

a. Factorial Dimension 2

N	*Items*	*Modalities*	*Coord.*
F2.1	AGREEMENT-It is useless to bustle, since you cannot affect what will be	quite agree	-0.54
F2.2	AGREEMENT-It is not possible at all to make any provision about the future	quite agree	-0.52
F2.3	TO SUCCEED IN LIFE-Having a few scruples	Quite	-0.47
F2.4	AGREEMENT-People are unable to change	quite agree	-0.44
F2.5	AGREEMENT-My life is chiefly controlled by powerful others	quite agree	-0.44
F2.6	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	quite agree	-0.44
F2.7	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	quite agree	-0.42

F2.8	AGREEMENT-These days a person doesn't really know whom he can count on	quite agree	-0.39
F2.9	TO SUCCEED IN LIFE-Acquiring knowledge	Quite	-0.38
F2.10	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	quite agree	-0.36
F2.11	RELIABILITY AGENCIES-Health care services	Quite	-0.34
F2.12	AGREEMENT-Those who succeed in life have luck on their side	quite agree	-0.33
F2.13	AGREEMENT-My life is determined by my own actions	quite disagree	-0.32
F2.14	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	quite agree	-0.31
F2.15	AGREEMENT-To a great extent, my life is controlled by accidental happenings	quite agree	-0.30
F2.16	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	quite disagree	-0.28
F2.17	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	quite agree	-0.28
F2.18	RELIABILITY AGENCIES-Police	Quite	-0.28
F2.19	AGREEMENT-Immigrants are a source of cultural enrichment	quite disagree	-0.27
F2.20	TO SUCCEED IN LIFE-Sharing	Quite	-0.27
F2.21	AGREEMENT-My life is determined by my own actions	quite agree	-0.25
F2.22	TO SUCCEED IN LIFE-Understanding the world	Quite	-0.24
F2.23	TO SUCCEED IN LIFE-Acquiring knowledge	not very	-0.24
F2.24	TO SUCCEED IN LIFE-Adjusting to the main trends	Quite	-0.23
F2.25	BEHAVIOUR DEPENDS ON-The need to defend one's reputation	Yes	-0.23
F2.26	TO SUCCEED IN LIFE-Forming alliances with stronger people	Quite	-0.23
F2.27	FUTURE WILL BE	A little worse	-0.22
F2.28	TO SUCCEED IN LIFE-Following rules	Quite	-0.22
F2.29	RELIABILITY AGENCIES-Schools	Quite	-0.21
F2.30	RELIABILITY AGENCIES-Public transport	Quite	-0.20
F2.31	RELIABILITY AGENCIES-Public Administration	Quite	-0.20
Central zone			
F2.43	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly agree	0.32
F2.44	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly agree	0.35
F2.45	TO SUCCEED IN LIFE-Following rules	Very	0.36

F2.46	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	strongly agree	0.37
F2.47	PLACE YOU LIVE NEXT 5 YEARS	Much better	0.37
F2.48	BEHAVIOUR DEPENDS ON-The need to defend one's reputation	Yes	0.38
F2.49	TO SUCCEED IN LIFE-Sharing	Very	0.38
F2.50	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	strongly agree	0.40
F2.51	AGREEMENT-Those who succeed in life have luck on their side	strongly agree	0.43
F2.52	RELIABILITY AGENCIES-Companies	not at all	0.44
F2.53	TO SUCCEED IN LIFE-Understanding the world	not at all	0.45
F2.54	AGREEMENT-People are unable to change	strongly agree	0.47
F2.55	PLACE YOU LIVE NEXT 5 YEARS	much worse	0.50
F2.56	AGREEMENT-My life is determined by my own actions	strongly agree	0.53
F2.57	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly disagree	0.53
F2.58	TO SUCCEED IN LIFE-Having a few scruples	not at all	0.55
F2.59	RELIABILITY AGENCIES-Schools	Very	0.57
F2.60	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly agree	0.57
F2.61	RELIABILITY AGENCIES-Schools	not at all	0.58
F2.62	TO SUCCEED IN LIFE-Following rules	not at all	0.58
F2.63	AGREEMENT-Immigrants are a source of cultural enrichment	strongly agree	0.62
F2.64	TO SUCCEED IN LIFE-Forming alliances with stronger people	not at all	0.66
F2.65	AGREEMENT-My life is determined by my own actions	strongly disagree	0.67
F2.66	RELIABILITY AGENCIES-Public transport	Very	0.71
F2.67	AGREEMENT-People are unable to change	strongly disagree	0.76
F2.68	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly disagree	0.77
F2.69	RELIABILITY AGENCIES-Health care services	Very	0.79
F2.70	TO SUCCEED IN LIFE-Adjusting to the main trends	not at all	0.81
F2.71	FUTURE WILL BE	Far better	0.85
F2.72	AGREEMENT-My life is chiefly controlled by powerful others	strongly disagree	0.86
F2.73	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	strongly disagree	0.87

F2.74	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	strongly disagree	0.91
F2.75	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly disagree	0.92
F2.76	AGREEMENT-It is not possible at all to make any provision about the future	strongly disagree	0.94
F2.77	RELIABILITY AGENCIES-Police	Very	0.95
F2.78	RELIABILITY AGENCIES-Companies	Very	0.97
F2.79	AGREEMENT-Those who succeed in life have luck on their side	strongly disagree	1.03
F2.80	RELIABILITY AGENCIES-Public Administration	Very	1.07
F2.81	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	strongly disagree	1.32
F2.82	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	strongly disagree	1.34
F2.83	AGREEMENT-These days a person doesn't really know whom he can count on	strongly disagree	1.43

a. Factorial Dimension 3

N	*Items*	*Modalities*	*Coord.*
F3.1	RELIABILITY AGENCIES-Public Administration	Very	-1.60
F3.2	RELIABILITY AGENCIES-Police	Very	-1.13
F3.3	RELIABILITY AGENCIES-Companies	Very	-1.06
F3.4	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly agree	-0.94
F3.5	RELIABILITY AGENCIES-Schools	Very	-0.92
F3.6	RELIABILITY AGENCIES-Public transport	Very	-0.71
F3.7	AGREEMENT-Those who succeed in life have luck on their side	strongly agree	-0.69
F3.8	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	strongly disagree	-0.68
F3.9	RELIABILITY AGENCIES-Health care services	Very	-0.66
F3.10	AGREEMENT-People are unable to change	strongly agree	-0.60
F3.11	TO SUCCEED IN LIFE-Acquiring knowledge	not very	-0.52
F3.12	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly agree	-0.47
F3.13	AGREEMENT-It is useless to bustle, since you cannot affect what will be	quite agree	-0.41
F3.14	AGREEMENT-My life is chiefly controlled by powerful others	strongly agree	-0.40
F3.15	BEHAVIOUR DEPENDS ON-Norms and laws	Yes	-0.39
F3.16	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	strongly disagree	-0.39

F3.17	TO SUCCEED IN LIFE-Forming alliances with stronger people	Very	-0.38
F3.18	AGREEMENT-People are unable to change	quite agree	-0.36
F3.19	AGREEMENT-To a great extent, my life is controlled by accidental happenings	quite agree	-0.31
F3.20	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	strongly agree	-0.29
F3.21	TO SUCCEED IN LIFE-Having a few scruples	Very	-0.28
F3.22	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly agree	-0.28
F3.23	WELLBEING-Not being ill	Yes	-0.27
F3.24	WELLBEING-Not suffering	Yes	-0.26
F3.25	TO SUCCEED IN LIFE-Forming alliances with stronger people	Quite	-0.24
F3.26	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	quite agree	-0.23
F3.27	TO SUCCEED IN LIFE-Having a few scruples	Quite	-0.23
F3.28	TO SUCCEED IN LIFE-Adjusting to the main trends	Very	-0.23
F3.29	WELLBEING-Detachment	Yes	-0.23
F3.30	WELLBEING-Capacity to love	No	-0.22
F3.31	FUTURE WILL BE	Far worse	-0.22
F3.32	TO SUCCEED IN LIFE-Understanding the world	not very	-0.20
F3.33	AGREEMENT-Immigrants are a source of cultural enrichment	strongly disagree	-0.20
F3.34	AGREEMENT-These days a person doesn't really know whom he can count on	strongly agree	-0.20
F3.35	AGREEMENT-Those who succeed in life have luck on their side	quite agree	-0.20
F3.36	AGREEMENT-My life is chiefly controlled by powerful others	quite agree	-0.20
F3.37	TO SUCCEED IN LIFE-Understanding the world	not at all	-0.18
F3.38	BEHAVIOUR DEPENDS ON-The need to defend one's reputation	Yes	-0.18
F3.39	TO SUCCEED IN LIFE-Sharing	not at all	-0.17
Central zone			
F3.39	PLACE YOU LIVE NEXT 5 YEARS	much worse	0.23
F3.40	TO SUCCEED IN LIFE-Following rules	not very	0.24
F3.41	RELIABILITY AGENCIES-Police	not at all	0.25
F3.42	AGREEMENT-My life is chiefly controlled by powerful others	strongly disagree	0.26

F3.43	TO SUCCEED IN LIFE-Sharing	Very	0.27
F3.44	FUTURE WILL BE	Far better	0.27
F3.45	BEHAVIOUR DEPENDS ON-The feeling of group membership	Yes	0.29
F3.46	WELLBEING-Safety	No	0.30
F3.47	RELIABILITY AGENCIES-Public transport	not at all	0.32
F3.48	RELIABILITY AGENCIES-Health care services	not at all	0.33
F3.49	RELIABILITY AGENCIES-Public transport	not very	0.34
F3.50	RELIABILITY AGENCIES-Public Administration	not at all	0.40
F3.51	RELIABILITY AGENCIES-Health care services	not very	0.40
F3.52	RELIABILITY AGENCIES-Public Administration	not very	0.42
F3.53	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly disagree	0.44
F3.54	AGREEMENT-Immigrants are a source of cultural enrichment	strongly agree	0.44
F3.55	TO SUCCEED IN LIFE-Having a few scruples	not at all	0.45
F3.56	TO SUCCEED IN LIFE-Adjusting to the main trends	not at all	0.45
F3.57	BEHAVIOUR DEPENDS ON-The need to defend one's reputation	Yes	0.46
F3.58	TO SUCCEED IN LIFE-Forming alliances with stronger people	not at all	0.48
F3.59	RELIABILITY AGENCIES-Companies	not very	0.48
F3.60	AGREEMENT-People are unable to change	strongly disagree	0.49
F3.61	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly disagree	0.61
F3.62	RELIABILITY AGENCIES-Schools	not very	0.63
F3.63	RELIABILITY AGENCIES-Police	not very	0.63
F3.64	RELIABILITY AGENCIES-Schools	not at all	0.71
F3.65	AGREEMENT-Those who succeed in life have luck on their side	strongly disagree	0.76

Line of semiotic force 1. AFFECTIVE CONNOTATION OF THE WORLD – *friend* vs. *foe*

Polarity A (-). *Friend*

Agencies and institutions [F1.1; F1.3; F1.5; F1.7; F1.9; F1.10; F1.11; F1.14; F1.16][30] are reliable resources. Trust in people [F1.2; F1.6; F.21], and the future [F1.4; F1.8; F.18; F1.20; F1.24]. Sense of control and agency on one's life [F1.12; F.15; F.17; F1.19; F1.23; F1.26; F1.27]. Rejection of familism [F1.22], centrality of meaningfulness [F1.13] and shared values [F1.25]

Polarity B (+). *Foe*
The future is expected to be worse [F1.76; F1.73]; non no chance to think of it [F1.71]. The present is worse than the past [F1.61]. Agencies and institutions are highly unreliable [F1.75; F1.74; F1.72; F1.69; F1.66; F1.53; F1.51; F1.50]; institutions are unwilling to take care of people's requests [F1.60]; people are unreliable too [F1.64], motivated by selfish interests [F1.46] and unable to change [F1.70]. Sense of pessimism, impotency, passivity [F1.68; F1.67; F1.65; F1.63; F1.62; F1.59; F1.49; F1.45]; rejection of otherness [F1.52]. Rules and moral constraints do not count [F1.58; F1.57; F1.55] nor do social [F1.56] and cognitive [F1.54] resources; what counts is power [F1.47] and conformism [F1.48].

Taken as a whole, the first factorial dimension polarizes two opposite generalized, affect-laden ways of connoting the field of experience as a whole. On the one hand a positive connotation that qualifies the world as a fine, trustworthy object, lending itself to be engaged with; on the other hand a negative connotation qualifying it as unfair, meaningless, unreliable. We therefore interpret the factorial dimension as the marker of the line of semiotic force consisting of the very basic, *affective connotation of the world,* in terms of the generalized opposition: *foe/friend*.

Line of semiotic force 2. DIRECTION OF DESIRE - *passivity* vs *engagement*

Polarity C (-). *Passivity*
Sense of passivity weakness, uncertainty, lack of control on one's own life [F2.1; F2.3; F2.5; F2.10; F12.13; F2.14; F2.15; but also F.2.21 (perhaps in the sense of being asked to account for one's actions)], distrust in people [F2.4; F2.8], in the present as well as the future [F2.6, F2.7; F2.27]. Agencies – starting from those concerning control and care [F2.11; F2.18; F2.29; F2.30; F2.31] are quite reliable, and together with the belongingness to the network of primary bonds [F2.17; see also F2.20] – the latter characterized by closeness to otherness [F2.22] – conformism [F2.24; F2.28; see also F2.22 and F2.23, (in this context, the latter can be interpreted as the marker of the sense of having to understand the rules of the game to adjust oneself to them)] and acceptance of power games [F2.26] are the ways to adjust to life successfully.

Polarity D (+). *Engagement*
Trust in people [F2.83], in their willingness to change [F2.54] as well as in agencies [F2.80; F2.78; F2.77; F2.69; F2.66; F2.59; but also F2.61]. The present is better than the past [F2.82] and the future will be far better than the present [F2.71], though not for one's place of living [F2.55]. Sense of agency and ability to engage with issues, rejection of any feeling of lack of control over one's life and passivity [F2.81; F2.79; F2.76; F2.75; F2.74; F2.72], however with the recognition of the fact that one cannot be the creator of one's destiny [F2.65] in the current condition of uncertainty [F2.60]. Rejection of conformism [F2.70; F2.62], power [F2.64], as well as familistic [F2.73] and illegal/immoral strategies [F2.58]. Valorisation of otherness [F2.63].

According to the interpretation of the polarities provided above, the second factorial dimension can be viewed as the marker of the line of semiotic force consisting of what we propose to

[30]. Here and henceforth, the alpha-numeric string in square brackets reports the VOC item referred to by the comment. The same is done for the interpretation of symbolic universes (see below, § 4.4.b). For each polarity, the first 30 items are taken into account.

consider the *direction of desire*, namely the position assumed with regard the world: *passivity* versus *engagement*. Passivity is characterized by the sense of dependency on institutions, agencies and primary network, thanks to which the subject can cope with the uncertain world; Engagement is characterized by the sense of agency, fostered by trust in people and institutions. In the final analysis, this line of semiotic force concerns the meaning of the world as the source of the action directed towards the subject (i.e. passivity) or, in contrast, as the goal of the subject's investment (i.e. engagement). In other words, being the object or the subject of desire (investment, commitment, action on).

Line of semiotic force 3. FORM OF DEMAND – *demand for systemic resources* vs. *demand for community identity*

Polarity E (-). *Demand for systemic resources*
High trust in institutions and agencies [F3.1; F3.2; F3.3; F3.5; F3.6; F3.8; F3.9], in an unpredictable world [F3.4], which is destined to get worse in the future [F3.22; F3.26], and makes one unable to have control over one's life [F3.7; F3.14; F3.19]. Thus, one has to give up the idea that one's effort can change things [F3.12; F3.13] and people [F3.10; F3.18], with the latter that follow norms and rules only [F3.15]. The only strategy consists of resigning oneself to give up any further aspiration [F3.20] and rely on those who have power [F3.17; F3.25; see also F3.8] and be part of the majority F3.28], even if this is in contrast with moral constraints [F3.21; F3.27]. This is not for the sake of pursuing positive aims [F3.29], or of engaging in meaningful relationships [F3.30], but the way to reduce the risk of being damaged [F3.23; F3.24].

Polarity F (+). *Demand for community bond*
Sense of agency and control over one's life [F3.65; F3.61; F3.53; F.42]. Trust in people's ability to change [F3.60], and in the future [F3.44] - but no faith in possible development of the place one lives [F3.39] - in spite of the unreliability of institutions and agencies [F3.64; F3.63; F3.62; F3.59; F3.52; F3.51; F3.50; F3.49; F3.48; F3.47; F3.41]. Rejection of conformism [F3.56], power [F3.58], and unethical attitudes [F3.55]; commitment to significant social linkages [F3.45; F3.43], that involves the relevance of defending one's reputation among others [F3.57]. These social linkages that go beyond the narrow context of the primary bonds [F3.44], and are open to what is outside them [3.54].

In sum, the polarities characterizing this factorial dimension can be interpreted as the marker of the line of semiotic force consisting of the opposition between what we propose to consider two *forms of demand*, namely two basic views of what is one's fundamental need: the *demand for systemic resources* versus the *demand for community bond*. In the former case, the demand concerns functional devices and services one needs in order to address a challenging, uncertain world; in the latter case the demand concerns the need to make life meaningful in spite of the untrustworthiness of institutions; where the meaning lies in the significant, vital participation in community bonds, namely bonds that go beyond the primary linkages (i.e. beyond the relation within family and close friends).

Discussion
It is worth noting five major facets closely associated with the affective valence of the three lines of semiotic force discussed above (Salvatore & Freda, 2011; see section § 3.3).
First, the form of connotation comprising each line of semiotic force is generalized - namely it does not concern single elements of experience, but the entire field of experience, namely the world as a whole. This is shown by the fact that each factorial dimension is not specific to a given domain of experience (e.g. the reliability of agencies, the way of thinking of one's life, how to have success in life), but is associated with items of all domains of experience included in the questionnaire.

Second, complementary to the previous point, it is important to notice that the pattern of meanings comprising each line of semiotic force consists of semiotic linkages (i.e. linkages among signs) that are not only or mainly mediated by their semantic content – indeed, in many cases there is no logical or semantic consistency among many of the response modalities associated with each other on the same polarity; thus, in these a-semantic patterns one can recognize the salience of generalized, affective meaning, working as the symbolic, overarching grounds of more differentiated semantic interpretation (Mannarini et al, 2012; Tonti & Salvatore, 2016).
Third, the affective meanings detected by the lines of semiotic force are not a representation of the state of affairs, but embodied dispositions to feel and act – which is where their affective and identity value lies.
Fourth, and strictly connected with the previous point, the meaning detected by the lines of semiotic force are inherently relational – they do not describe the object in itself, but the way the person feels the object relates to him/herself – thus, for instance, the object is not good/bad, but *good/bad with respect to oneself* - namely: foe/friend
Finally, the affective, generalized, a-semantic valence of the lines of semiotic force finds further support in their similarity with the three dimensions of the Semantic Differential (*evaluation*, *power* and *activity*, Osgood et al., 1957; 1969) as they result from the huge number of studies that have implemented this instrument for more than fifty years over several countries and in reference to many different issues (for a review, cf. Arnold *et al*., 1972; Capozza, 1977; Heise, 1970; McCroskey, 1968; James, 1967; Maggino & Mola, 2007; Sytsma, 2005; Williams, 1969; Wood, 1997). More specifically, the correspondence between the first line of semiotic force (AFFECTIVE CONNOTATION OF THE WORLD) and the Semantic Differential's *evaluation* dimension (divided into good/bad polarities) as well as between the second line of semiotic force (DIRECTION OF DESIRE) and the Semantic Differential's *activity* dimension (divided into active/passive polarities) are quite evident. However, one can see a certain similarity between the third line of semiotic force (FORM OF DEMAND) and the Semantic Differential's power dimension (divided into strong/weak polarities) insofar as that line of semiotic force is recognized to polarize between a connotation of oneself in terms of dependency on the context (demand of systemic resources) and a connotation of agency and sense of having one's life in one's own hands (demand for community bond).
The similarity between the lines of semiotic force and the dimensions of the Semantic Differential is theoretically relevant: it supports the SCPT psychodynamic and cultural psychology interpretation of the lines of semiotic force in terms of basic, generalized, embodied, affectively-laden, latent dimensions of sense – indeed, the fact that these dimensions are involved in many different contexts and with regard to many different objects leads them to be seen as stable, fundamental grounds of sensemaking. On the other hand, such a conclusion is not inconsistent with the variability of the cultural dynamics - as intended here, the lines of semiotic force work as the essential embodied alphabet that provides the "bricks" whose infinite possibilities of combination enable the trajectories of sensemaking to be open to the new.

4.4.b. <u>Line 1 analysis. Symbolic universes of the European sample (point b)</u>
The partition in 5 clusters was chosen as the optimal solution of Cluster Analysis (Inter-class inertia/Total inertia: 0.1910/0.4588=0.4163). Further differentiation would not have greatly increased the inter-class/total inertia ratio (e.g. ratio corresponding to 6 Clusters: 0.4531), without improving the meaningfulness of the partition. Table 4.4 reports the descriptions of the response profiles characterizing the 5 clusters.
In accordance with the framework adopted, each cluster was interpreted as the marker of a symbolic universe.

Table 4.4. L1. AC output

ID	*Items*	*Modalities*	*Modal/ class (%)*	*class/ modal. (%)*	*Test Values*	*p (0.)*

Cluster 1 (N=138; 18.98%)						
C1.1	TO SUCCEED IN LIFE-Having a few scruples	not at all	57.97	40.82	8.58	0.000
C1.2	TO SUCCEED IN LIFE-Sharing	Very	65.94	35.97	8.25	0.000
C1.3	TO SUCCEED IN LIFE-Forming alliances with stronger people	not at all	35.51	52.69	7.86	0.000
C1.4	AGREEMENT-People are unable to change	strongly disagree	48.55	42.41	7.84	0.000
C1.5	AGREEMENT-Those who succeed in life have luck on their side	strongly disagree	29.71	53.25	7.12	0.000
C1.6	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly disagree	31.88	49.44	6.95	0.000
C1.7	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly disagree	47.83	38.15	6.87	0.000
C1.8	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly disagree	50.00	33.33	5.90	0.000
C1.9	RELIABILITY AGENCIES-Police	not very	42.75	35.76	5.83	0.000
C1.10	RELIABILITY AGENCIES-Public Administration	not very	50.72	30.43	5.12	0.000
C1.11	WELLBEING-Not being ill	No	73.91	25.69	5.06	0.000
C1.12	AGREEMENT-My life is chiefly controlled by powerful others	strongly disagree	32.61	34.09	4.52	0.000
C1.13	AGREEMENT-Immigrants are a source of cultural enrichment	strongly agree	26.09	34.62	4.02	0.000
C1.14	TO SUCCEED IN LIFE-Adjusting to the main trends	not at all	18.84	38.24	3.80	0.000
C1.15	TO SUCCEED IN LIFE-Adjusting to the main trends	not very	45.65	27.04	3.63	0.000
C1.16	RELIABILITY AGENCIES-Companies	not very	38.41	28.49	3.62	0.000
C1.17	FUTURE WILL BE-	Far better	15.22	39.62	3.51	0.000
C1.18	WELLBEING-Capacity to love	Yes	77.54	22.38	3.22	0.001
C1.19	BEHAVIOUR DEPENDS ON-The need to make sense of experience	Yes	18.12	34.25	3.16	0.001
C1.20	BEHAVIOUR DEPENDS ON-Norms and laws	No	89.13	21.10	2.94	0.002
C1.21	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	strongly disagree	10.87	39.47	2.87	0.002
C1.22	WELLBEING-Adaptability	Yes	52.90	23.78	2.71	0.003
C1.23	TO SUCCEED IN LIFE-Acquiring knowledge	Very	76.09	21.83	2.69	0.004
C1.24	AGREEMENT-It is not possible at all to make any provision about the future	strongly disagree	24.64	28.10	2.59	0.005
C1.25	AGREEMENT-These days a person doesn't really know whom he can count on	quite disagree	41.30	24.78	2.58	0.005
C1.26	AGREEMENT-My life is determined by my own actions	strongly agree	42.03	24.47	2.49	0.006
C1.27	RELIABILITY AGENCIES-Schools	not very	22.46	27.93	2.40	0.008
Cluster 2 (N=204; 28.06%)						
C2.1	AGREEMENT-It is not possible at all to make any provision about the future	quite disagree	68.14	50.92	10.48	0.000
C2.2	RELIABILITY AGENCIES-Public Administration	Quite	75.49	44.13	9.33	0.000
C2.3	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	quite disagree	51.47	52.24	8.63	0.000
C2.4	AGREEMENT-It is useless to bustle, since you cannot affect what will be	quite disagree	66.18	43.27	7.83	0.000
C2.5	AGREEMENT-These days a person doesn't really know whom he can count on	quite disagree	53.43	47.39	7.65	0.000

C2.6	AGREEMENT-My life is chiefly controlled by powerful others	quite disagree	65.69	42.68	7.57	0.000
C2.7	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	quite disagree	45.10	49.73	7.28	0.000
C2.8	FUTURE WILL BE-	A little better	75.00	38.93	7.13	0.000
C2.9	RELIABILITY AGENCIES-Police	Quite	75.00	38.73	7.04	0.000
C2.10	RELIABILITY AGENCIES-Companies	Quite	75.00	37.23	6.31	0.000
C2.11	AGREEMENT-People are unable to change	quite disagree	62.75	40.00	6.27	0.000
C2.12	TO SUCCEED IN LIFE-Having a few scruples	not very	52.45	42.13	6.02	0.000
C2.13	AGREEMENT-To a great extent, my life is controlled by accidental happenings	quite disagree	67.16	38.16	5.95	0.000
C2.14	RELIABILITY AGENCIES-Health care services	Quite	66.67	37.36	5.55	0.000
C2.15	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	quite disagree	50.49	39.77	5.08	0.000
C2.16	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	quite disagree	50.00	37.64	4.31	0.000
C2.17	TO SUCCEED IN LIFE-Adjusting to the main trends	Quite	56.37	35.94	4.10	0.000
C2.18	BEHAVIOUR DEPENDS ON-Shared values	Yes	32.35	41.51	4.07	0.000
C2.19	BEHAVIOUR DEPENDS ON-Economic interest	No	79.41	32.60	4.00	0.000
C2.20	RELIABILITY AGENCIES-Public transport	Quite	65.69	34.27	3.97	0.000
C2.21	RELIABILITY AGENCIES-Schools	Quite	70.10	33.65	3.94	0.000
C2.22	WELLBEING-Not suffering	No	73.04	33.11	3.83	0.000
C2.23	WELLBEING-Fulfilment	Yes	69.12	33.41	3.73	0.000
C2.24	AGREEMENT-My life is determined by my own actions	quite agree	66.18	33.75	3.72	0.000
C2.25	PLACE YOU LIVE NEXT 5 YEARS-	quite better	36.27	37.00	3.17	0.001
C2.26	AGREEMENT-Those who succeed in life have luck on their side	quite disagree	46.57	34.55	2.93	0.002
C2.27	TO SUCCEED IN LIFE-Sharing	Quite	51.96	33.65	2.84	0.002
C2.28	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	quite agree	57.84	32.78	2.72	0.003
C2.29	TO SUCCEED IN LIFE-Forming alliances with stronger people	Quite	46.08	33.81	2.62	0.004
	Cluster 3 (N= 79; 10.87%)					
C3.1	RELIABILITY AGENCIES-Police	Very	81.01	56.64	14.15	0.000
C3.2	RELIABILITY AGENCIES-Public Administration	Very	62.03	71.01	12.99	0.000
C3.3	RELIABILITY AGENCIES-Health care services	Very	86.08	41.46	12.86	0.000
C3.4	RELIABILITY AGENCIES-Schools	Very	79.75	37.50	11.37	0.000
C3.5	RELIABILITY AGENCIES-Companies	Very	58.23	51.69	10.67	0.000
C3.6	RELIABILITY AGENCIES-Public transport	Very	53.16	37.84	8.40	0.000
C3.7	AGREEMENT-These days a person doesn't really know whom he can count on	strongly disagree	30.38	48.98	6.95	0.000
C3.8	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	strongly disagree	27.85	48.89	6.60	0.000
C3.9	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	strongly disagree	20.25	51.61	5.66	0.000
C3.10	AGREEMENT-It is not possible at all to make any provision about the future	strongly disagree	41.77	27.27	5.58	0.000
C3.11	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	strongly disagree	31.65	26.60	4.55	0.000

C3.12	AGREEMENT-My life is chiefly controlled by powerful others	strongly disagree	36.71	21.97	4.06	0.000
C3.13	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly disagree	49.37	18.84	4.06	0.000
C3.14	AGREEMENT-People are unable to change	strongly disagree	39.24	19.62	3.64	0.000
C3.15	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	quite disagree	44.30	17.41	3.26	0.001
C3.16	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly disagree	39.24	17.92	3.14	0.001
C3.17	WELLBEING-Safety	Yes	87.34	12.41	2.38	0.009
	Cluster 4 (N= 199; 27.37%)					
C4.1	AGREEMENT-It is useless to bustle, since you cannot affect what will be	quite agree	56.28	61.88	11.48	0.000
C4.2	AGREEMENT-It is not possible at all to make any provision about the future	quite agree	62.31	53.68	10.54	0.000
C4.3	AGREEMENT-These days a person doesn't really know whom he can count on	quite agree	74.37	45.40	9.84	0.000
C4.4	AGREEMENT-My life is chiefly controlled by powerful others	quite agree	56.78	50.90	9.12	0.000
C4.5	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	quite agree	68.34	41.72	7.77	0.000
C4.6	AGREEMENT-People are unable to change	quite agree	47.24	49.74	7.68	0.000
C4.7	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	quite agree	64.32	38.32	6.04	0.000
C4.8	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	quite agree	57.29	39.58	5.85	0.000
C4.9	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	quite agree	40.20	44.94	5.78	0.000
C4.10	AGREEMENT-To a great extent, my life is controlled by accidental happenings	quite agree	49.75	40.91	5.61	0.000
C4.11	FUTURE WILL BE-	A little worse	42.21	41.18	5.01	0.000
C4.12	TO SUCCEED IN LIFE-Having a few scruples	Quite	39.20	41.71	4.89	0.000
C4.13	TO SUCCEED IN LIFE-Following rules	Quite	62.81	35.51	4.70	0.000
C4.14	WELLBEING-Not suffering	Yes	51.76	37.59	4.68	0.000
C4.15	AGREEMENT -Those who succeed in life have luck on their side	quite agree	54.27	36.36	4.41	0.000
C4.16	TO SUCCEED IN LIFE-Sharing	Quite	55.78	35.24	4.06	0.000
C4.17	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	quite agree	61.31	33.89	3.83	0.000
C4.18	WELLBEING-Fulfilment	No	52.26	34.44	3.50	0.000
C4.19	BEHAVIOUR DEPENDS ON-Shared values	No	86.43	30.39	3.43	0.000
C4.20	TO SUCCEED IN LIFE-Understanding the world	Quite	56.78	33.63	3.42	0.000
C4.21	BEHAVIOUR DEPENDS ON-The need to make sense of experience	No	95.48	29.14	3.21	0.001
C4.22	WELLBEING-Capacity to love	No	42.71	34.55	2.99	0.001
C4.23	AGREEMENT-My life is determined by my own actions	quite agree	63.82	31.75	2.86	0.002
C4.24	WELLBEING-Not being ill	Yes	53.77	32.72	2.84	0.002
C4.25	AGREEMENT-My life is determined by my own actions	quite disagree	17.09	41.46	2.82	0.002

C4.26	RELIABILITY AGENCIES-Public Administration	not very	39.70	34.35	2.75	0.003
C4.27	RELIABILITY AGENCIES-Companies	not very	33.17	35.48	2.74	0.003
C4.28	RELIABILITY AGENCIES-Health care services	not very	28.14	36.36	2.67	0.004
C4.29	RELIABILITY AGENCIES-Health care services	Quite	57.79	31.59	2.48	0.007
C4.30	TO SUCCEED IN LIFE-Acquiring knowledge	Quite	36.18	33.80	2.39	0.008
Cluster 5 (N= 107; 14.72%)						
C5.1	AGREEMENT-These days a person doesn't really know whom he can count on	strongly agree	68.22	60.33	13.41	0.000
C5.2	AGREEMENTENT- In spite of what some people say, the lot of the average man is getting worse, not better	strongly agree	75.70	48.50	12.76	0.000
C5.3	AGREEMENT-There's little use in writing to public officials because often they aren't really interested in the problems of the average man	strongly agree	69.16	45.40	11.36	0.000
C5.4	AGREEMENT-It is not possible at all to make any provision about the future	strongly agree	50.47	54.55	10.25	0.000
C5.5	AGREEMENT-It's hardly fair to bring children into the world, the way things look for the future	strongly agree	40.19	61.43	9.59	0.000
C5.6	FUTURE WILL BE-	Far worse	38.32	60.29	9.21	0.000
C5.7	RELIABILITY AGENCIES-Public Administration	not at all	39.25	56.00	8.90	0.000
C5.8	AGREEMENT-Sometimes one has to break the rules to help one's loved ones	strongly agree	53.27	41.61	8.78	0.000
C5.9	AGREEMENT-Nowadays a person has to live pretty much for today and let tomorrow take care of itself	strongly agree	39.25	50.60	8.31	0.000
C5.10	AGREEMENT-People are unable to change	strongly agree	29.91	58.18	7.77	0.000
C5.11	RELIABILITY AGENCIES-Police	not at all	28.04	57.69	7.44	0.000
C5.12	AGREEMENT- Those who succeed in life have luck on their side	strongly agree	33.64	49.32	7.43	0.000
C5.13	RELIABILITY AGENCIES-Companies	not at all	21.50	67.65	7.10	0.000
C5.14	PLACE YOU LIVE NEXT 5 YEARS-	much worse	16.82	81.82	7.00	0.000
C5.15	AGREEMENT-It is useless to bustle, since you cannot affect what will be	strongly agree	28.97	50.82	6.94	0.000
C5.16	RELIABILITY AGENCIES-Health care services	not at all	23.36	56.82	6.63	0.000
C5.17	AGREEMENT-My life is chiefly controlled by powerful others	strongly agree	26.17	50.00	6.47	0.000
C5.18	BEHAVIOUR DEPENDS ON-Economic interest	Yes	57.94	27.19	6.08	0.000
C5.19	AGREEMENT-Immigrants are a source of cultural enrichment	strongly disagree	40.19	33.08	5.88	0.000
C5.20	TO SUCCEED IN LIFE-Following rules	not at all	20.56	50.00	5.63	0.000
C5.21	RELIABILITY AGENCIES-Schools	not at all	12.15	76.47	5.59	0.000
C5.22	TO SUCCEED IN LIFE-Having a few scruples	Very	28.97	37.80	5.45	0.000
C5.23	RELIABILITY AGENCIES-Schools	not very	32.71	31.53	4.87	0.000
C5.24	RELIABILITY AGENCIES-Public transport	not at all	21.50	35.94	4.34	0.000
C5.25	AGREEMENT-My life is determined by my own actions	strongly agree	51.40	23.21	4.27	0.000
C5.26	AGREEMENT-To a great extent, my life is controlled by accidental happenings	strongly agree	14.02	45.45	4.20	0.000
C5.27	RELIABILITY AGENCIES-Health care services	not very	36.45	25.32	3.86	0.000
C5.28	TO SUCCEED IN LIFE-Adjusting to the main trends	Very	27.10	28.43	3.79	0.000
C5.29	WELLBEING-Not being ill	Yes	61.68	20.18	3.65	0.000
C5.30	TO SUCCEED IN LIFE-Sharing	not at all	11.22	38.71	3.20	0.001
C5.31	TO SUCCEED IN LIFE-Understanding the world	Very	55.14	19.87	3.12	0.001

C5.32	PLACE YOU LIVE NEXT 5 YEARS-	quite worse	22.43	25.53	2.85	0.002
C5.33	WELLBEING-Not suffering	Yes	49.53	19.34	2.60	0.005
C5.34	WELLBEING-Capacity to love	No	44.86	19.51	2.46	0.007
C5.35	BEHAVIOUR DEPENDS ON-The need to defend one's reputation	Yes	19.63	24.14	2.37	0.009
C5.36	RELIABILITY AGENCIES-Public transport	not very	30.84	21.15	2.37	0.009
C5.37	AGREEMENT-Immigrants are a source of cultural enrichment	strongly agree	22.43	23.08	2.35	0.009
C5.38	AGREEMENT-My life is determined by my own actions	quite disagree	18.69	24.39	2.34	0.010
C5.39	TO SUCCEED IN LIFE-Forming alliances with stronger people	Very	20.56	23.66	2.34	0.010

Items with p. < 0.01 included in table

Symbolic universe 1.*Ordered universe*

Rejection of unethical attitude [C1.1], power [C1.3], conformism [C1.14; C1.15], and familism [C1.21]. Centrality of solidarity [C1.2], faith in people [C.25] and their capacity to change [C1.4]. Sense of agency, of control over one's life and possibility of making plans [C1.5; C1.6; C1.7; C1.12; C1.24; C1.26]. Valorisation of otherness [C1.13]. People do not act because they are compelled by laws [C1.20], but due to the need to make life meaningful [C1.19; see also C.11] as well as to adapt positively to significant people [C1.18; C1.22].

Morality [C1.1], solidarity [C1.2], following rules [C1.21], confidence in one's efficacy [C1.7] go together, associated with a sense of trust in the future [C1.8; C1.17]. This interconnection entails the view of the world as a just place that has an inherent order. In such a world, one can pursue both adaptability and capacity to love as one's aim [C1.18; C1.22] - thus, if one embraces this order, one is on the right side of history, and this makes one confident about the future [C1.8; C1.17] in spite of the low trust in institutions and agencies [C1.9; C1.10; C1.16; C1.27].

Symbolic universe 2.*Interpersonal bond*

Sense of agency [C2.1; C2.3; C2.4; C2.6; C2.13; C2.15; C2.24; C2.26], generalized attitude of moderate trust in institutions and agencies [C2.2; C2.7; C2.9; C2.10; C2.14; C2.20; C2.21], people [C2.5; C2.11], present and future [C2.3; C2.8; C2.16; C2.25].

To be part of interpersonal bonds, based on common values [C2.18], trust [C2.5; C2.11] and reciprocity [C2.27; C2.19] means to have shared needs in the foreground [C2.28], however within the limit of ethical constrains [C2.12] Thus, belongingness to vital linkages requires one to join [C2.17], but it means being able to count on the power of the group [C2.29] and to pursue a fulfilling life [C2.23].

Symbolic universe 3. *Caring society*

Full trust in society - its agencies, and institutions [C3.1; C3.2; C3.3; C3.4; C3.5; C3.6], that take care of people's requests [C3.8], that are fostered by a demand for safety [C3.17]. Such a trust fosters the generalized feeling of confidence with people [C3.7; C3.14], agency [C3.11; C3.12; C3.16] and projectuality [C3.10] as well as the sense that all's right with the world [C3.9; C3.13; C3.15].

Symbolic universe 4. *Niche of belongingness*

Fatalism and lack of projectuality [C4.1; C4.8; C4.15], feeling of being immersed in an anomic context [C4.2], lack of control over one's life [C4.4; C4.10].Low trust in people [C4.3; C4.6; C4.15] as well as institutions and agencies[C4.7; C4.26; C4.27; C4.28 (yet C4.29 also)].Moderate pessimism about present and future [C4.5; C4.9; C4.11]. Centrality of being part of the primary network[C4.16; C4.17]. Belongingness is not the place of meaningful experiences of bonds and reciprocity [C4.18; C4.19; C4.21; C4.22]; rather, it is a system one has to support [C4.13] in order

to gain protection from being damaged [C4.14; C4.24] by the threatening outside [C4.9] and to salvage control on one's life. It involves the need to understand and follow the group's rule, in spite of the fact that this means going beyond ethical constraints [C4.12].

Symbolic universe 5. *Others' world*

People are untrustworthy [C5.1], motivated by selfish aims [C5.18]. Things are getting worse [C5.2] and will be far worse in future [C5.5; C5.6; C5.14; C5.32]. Institutions and agencies are completely unreliable [C5.7; C5.11; C5.13; C5.16; C5.21; C5.23; C5.24; C5.27; C5.36] and inaccessible to people's requests [C5.3]. The world – and one's life - belongs to those who have power [C5.17; C5.39] and reach success by using it without scruples [C5.22].

Plans and efforts for the future are useless [C5.4;C5.15] as well as values, rules and bonds [C5.20; C5.30; C5.34], because no change can be promoted [C5.10] and things go in accordance to chance [C5.2; C5.26]. What one can do is to survive, by adjusting to living day-by-day [C5.9] and affiliating oneself to winners [C5.28; C5.39] – even if this means giving up ethical and social constraints [C5.8; C5.20]. This choice is the only chance to keep one's life in one's own hands [C5.25], though it means assuming the avoidance of sufferance [C5.29; C5.33] as the only possible purpose.

Discussion

First, the 5 symbolic universes identified depict a meaningful, quite varied cultural scenario – indeed, each of them highlights a particular worldview, which is interpretable as reflecting the salience attributed to a specific anchorage – the ethical, axiomatic framework; the institutions and structure of the social system; the emotional experience of interpersonal life; the system of belongingness; respectively for *ordered universe, caring society, interpersonal bond, niche of belongingness* – associated within a corresponding specific valence – to guarantee the inherent consistency between moral behaviour, justice and adjustment (*ordered universe),* to provide the functional support to individual autonomy (*caring society*), to make the positive, meaningful quality of experience absolute (*interpersonal bond*), to allow survival in the anomic context (*niche of belongingness*). From a complementary standpoint, *others' world* can be interpreted as fostered by the inability of these anchorages to express salience – in these circumstances, the form of identity and sense that remains is an emotional, generalized anomic reaction. Such a reaction sees everything in a negative, fatalistic way; however, though at a high psychological and existential cost, it allows the sense of self as resulting from the radical opposition with the other-than-self to be salvaged.[31]

Second, the 5 symbolic universes are models that need to be described in quite an abstract way, given their generalized application. However, they consist of *concrete forms of life* that can be recognized and traced in the practices and discourses they trigger across European societies (see § 6).

Third, the 5 symbolic universes can be interpreted further as the background of political and social theories that play a role in the contemporary public and scientific debate. For instance, the worldview involved in the *ordered universe* is at the foundation of all those policy approaches (e.g. the Catholic Social Doctrine) that assume – more or less implicitly – an inherent convergence between rationality and ethicality, between what is right and correct and what is efficient and efficacious. *Interpersonal bond* can be linked to theories and practices that see the vital force of community as the fundamental resource for social regulation and development. *Caring society* can be recognized as related to the view of the institutions' role as source and constraint of social life

[31]. The function of the polarized emotional reaction as an extreme way of defending the boundary of self and of providing a sense of stability to it as is largely discussed in clinical and social psychology (e.g. Carli, Paniccia, 1981, 2003; Fornari, 1964; Jodelet 1989/1991; Salvatore, Gennaro, Valsiner, 2014; Rouhana & Bar-Tal, 1998).

(i.e. the centrality of public policies). *Niche of belongingness* highlights a form of life that is widely used in interpretations of states of social regression in terms of particularism and familism (e.g. Benigni & Valsiner, 1995; Bigoni *et al*, 2016; Mucchi, Faina et al, 2010).

The position of symbolic universes on the semiotic field

Figures 4.4. and 4.5 show the position of clusters on the semiotic space made up by the three lines of semiotic force (the 3 dimensional space was decomposed into two 2 dimensional subspaces, for the sake of clarity – Factor 1 vs. Factor 2 and Factor 1 vs. Factor 3); clusters are labelled in accordance to their interpretation in terms of symbolic universes.

As one can see, the line of semiotic force AFFECTIVE CONNOTATION OF THE WORLD differentiates *others' world* from all other symbolic universes, with the former being the only symbolic universe positioned on the left side of the semiotic space, almost fully overlapping the polarity *foe*. *Caring society* is opposed to *niche of belongingness* on the second line of semiotic force (DIRECTION OF DESIRE) –the former associated with the polarity *engagement*, the latter with the opposite polarity *passivity*. In turn, *ordered universe* and *caring society* have opposite positions on the line of semiotic force FORM OF DEMAND: the former with the polarity *Demand for community bond,* the latter with the polarity *Demand for systemic resources.*

The symbolic universes can be understood better by looking at their position

- The position of *caring society* and *ordered universe* on the *engagement* polarity is consistent and provides a further indication of how, in the case of these two symbolic universes, the anchorage to a super-order dimension (in view of the immanent order assumed to be at the basis of human affairs by *ordered universe* or the trustworthiness that *caring society* attributes to institutions) does not mean passivity and dependency; rather it works as a "safe base"[32] grounding and fostering the sense of agency. On the other hand, the opposite polarization of the two symbolic universes on the third semiotic force (respectively, *caring society* on the *demand for systemic resources* polarity and *ordered universe* on the *demand of community bond* polarity) is consistent with the two different values that these two symbolic universes are associated with: *caring society* looks at the society as the provider of services and common goods supporting individual agency; on the other hand, *ordered universe* implies a view of the world in terms of an act of faith in the inherent order of the whole.
- The *interpersonal bond* symbolic universe is characterized by its polarization on the first line of semiotic force, with almost no association either with the second or the third line of semiotic force (respectively DIRECTION OF DESIRE; FORM OF DEMAND).[33] This is consistent with the idea that the centrality of the emotional interpersonal experience expressed by this symbolic universe is a value in itself, that seems neither motivated, neither used due to further aspects of experience (e.g. as a modality of protecting and/or as a way of belongingness fostering the sense of identity).
- The strict association of *niche of belongingness* with only the *protection from* polarity is consistent with the interpretation of this symbolic universe – namely that, unlike

[32]. The concept of safe base comes from the psychodynamic model of infant-caregiver relationship (Bowlby, 1969; 1973; 1980; Mahler, 1968; Winnicott, 1958; 1965). One of the main proposals of this approach is that the more supportive and holding the parental function is, the more the new-born can develop autonomy and agency, as a result of the possibility of activating exploratory attitudes once confident with having a point of anchorage to come back to. In using the term "safe base" in the context of transitions between society and citizens, we suggest that the affective dynamics it denotes can be generalized to the whole class of relations involving the dialectics between dependency on a source of resources and the use of such resources to foster autonomy.

[33]. This is shown by the fact that the coordinates of this symbolic universe on the second and third factor are close to 0.

interpersonal bond, for this symbolic universe the investment in the primary network is exogenous, responding to the need to survive in an anomic context.

- The sense of impotency, lack of agency, anomy that characterizes the *others' world* symbolic universe is fully reflected in the fact that it is almost completely saturated by the extreme polarity *foe*. However, it is worth observing that this symbolic universe also shows a weak, yet appreciable association with the *engagement* polarity of the second line of semiotic force. This is consistent with an aspect highlighted in the interpretation of the symbolic universe – the fact that the anomy and sense of lack of agency are associated with a strategy of survival, consisting of surrendering to those with the power to lead the game.

Discussion

The positions of symbolic universes on the semiotic space prompts us to integrate the interpretation of both elements with further considerations.

First, it must be noticed that the positions of symbolic universes signals the conic form of the semiotic space. This form can be viewed as the effect of the fact that the first dimension of the factorial space – i.e. the line of semiotic force consisting of the affective evaluation of the world in *friend/foe* terms- plays a major role in shaping the trajectories of sensemaking.[34] More specifically, the polarity *foe* seems to work as a kind of *semiotic black hole* – when it is salient, it saturates the semiotic field, unavailable to any form of articulation/combination with further sources of meanings. Thus, the chances of an interaction among meanings – therefore the chance of making the trajectories of sensemaking variable - have room only when the polarity *foe* loses most of its semiotic force – namely when the axis moves away from the polarity. Indeed, the second and third line of semiotic force are salient only from the centre of the semiotic space to the right side, shaping other symbolic universes due to their multiple combinations. On the other polarity, the chance to address critical issues in terms of engagement and competence is not conceivable – negative issues mean only impotency and reactivity.

Second, the position of *caring society* and *ordered universe* on the third line of semiotic force highlights some important issues. On the one hand, it shows that how the European cultural scenario allows for the mentalization of the relation between the individual sphere of experience and the sphere of secondary relationships, namely the dimension of collective life that goes beyond the experience of oneself and the primary bond (family relatives, close friends). Yet, these semiotic resources seem rather marginal (the two symbolic universes correspond to only about 1/4 of the sample). On the other hand, it is the global form of this aspect of the semiotic field that has to be considered critical in itself. Indeed, according to how it was interpreted, this line of semiotic force splits into two alternative areas of meaning, communitarian identity and systemic functionality. The polarization between community and system is not at all new – being well known and debated in scientific and media arenas from the Tönnies' classic society-community dichotomy (Tönnies, 1887).What the analysis of the semiotic field adds to it is the fact that *caring society* and *ordered universe* are each positioned on one of the polarities of the line of semiotic force signalling the community-system dialectics. Accordingly, this pattern can be seen as the indicator of a twofold semiotic dynamics characterizing the current European scenario. On the one hand, there is the tendency of the area of meaning concerned with communitarian identity to be felt and enacted as an absolute value, the expression and interpretant of the inherent normative order of life. On the other hand, there is the tendency of the area of the systemic functionality to view the system as the instrumental provider of common goods (resources, services, safety, control) needed to support individual autonomy. Here we will simply highlight the potential critical elements associated with this semiotic dynamics. Indeed, both areas of meaning (i.e. the absolutization of the normative communitarian identity and the instrumental view of the system)

[34]. The high proportion of inertia associated with the first dimension (see § 4.4.a) is the computational correspondent of this geometrical consideration.

represent a resource, because they are ways of mentalizing the salience of a super-order dimension that can work as a *third* party, that is, as a normative framework that can regulate and constrain the vital, self-referential experience of the primary bond. On the other hand, both areas of meaning have their critical limit in the lack of reciprocal integration. Indeed, instrumentality without a sense of identification with the system paves the way to the logic of the free-rider, where the demand of consumption is not mediated and constrained by the vital sense of membership. Correspondingly, the absolutization of the community identity leads the source of variability of the social milieu to be seen as a violation of the canon, rather than a condition to deal with – and this means fostering reactive, ideological and generalized responses of a performative kind (whose value is not in their results, but in the claim that they make by means of their very enactment), rather than problem-oriented, resource-seeking forms of governance, marked by efficacy.[35]

Third, it is worth noticing that the relation between symbolic universes and the lines of symbolic force provides a way of differentiating the former in terms of their dimensionality. Accordingly, 2 (*others' world, , interpersonal bond*) out of 5 symbolic universes are mono-dimensional, namely, they are fully or almost fully associated with only one polarity; in contrast, in the case of *niche of belongingness, ordered universe* and *caring society,* their meaning emerges from the combination of more than one dimension - in the case of *niche of belongingness* from the combination of first and second dimension, in the case of *ordered universe* the second and third dimension; in the case of *caring society* a role is also played by the first dimension). Now, the dimensionality of the symbolic universe can be assumed to be an indicator of the level of differentiation of the meanings making them up – i.e. the less the dimensionality, the more the affect-laden, generalized valence of the symbolic universe (Salvatore, 2016; Salvatore Tebaldi et al 2006/2009; Tonti & Salvatore, 2015. Accordingly, the negative approach (*others' world*) to experience, even if it appears to be far from the positive, optimistic view (*interpersonal bond*) at the level of content, shares the basic structural characteristics of being the expression of a similar generalized, mono-dimensional view of experience.

On the other hand, the dimensionality of symbolic universes indirectly shows how their development is not (necessarily) a matter of change of content – rather, the development of symbolic universes can (also) be conceptualized – and pursued - in terms of the increase in their dimensionality.

[35]. Emblematic of this semiotic process is the way of addressing the issue of refugees characterizing several areas of the European population. Immigration fluxes are not seen in functional terms – i.e. in terms of pros and cons, analysis of impacts, feasibility of interventions – but as a rupture of a canonical order, a threat to one's identity, the loss of the world as it has been so far and as it cannot but continue to be. Accordingly, answers are emotional and performative – they are not oriented to address the issue, but to claim the threatened identity/canon. More in general, the consideration provided above leads to view populism as the absolutization of the community identity, the latter assumed as the inherent order of collective life.

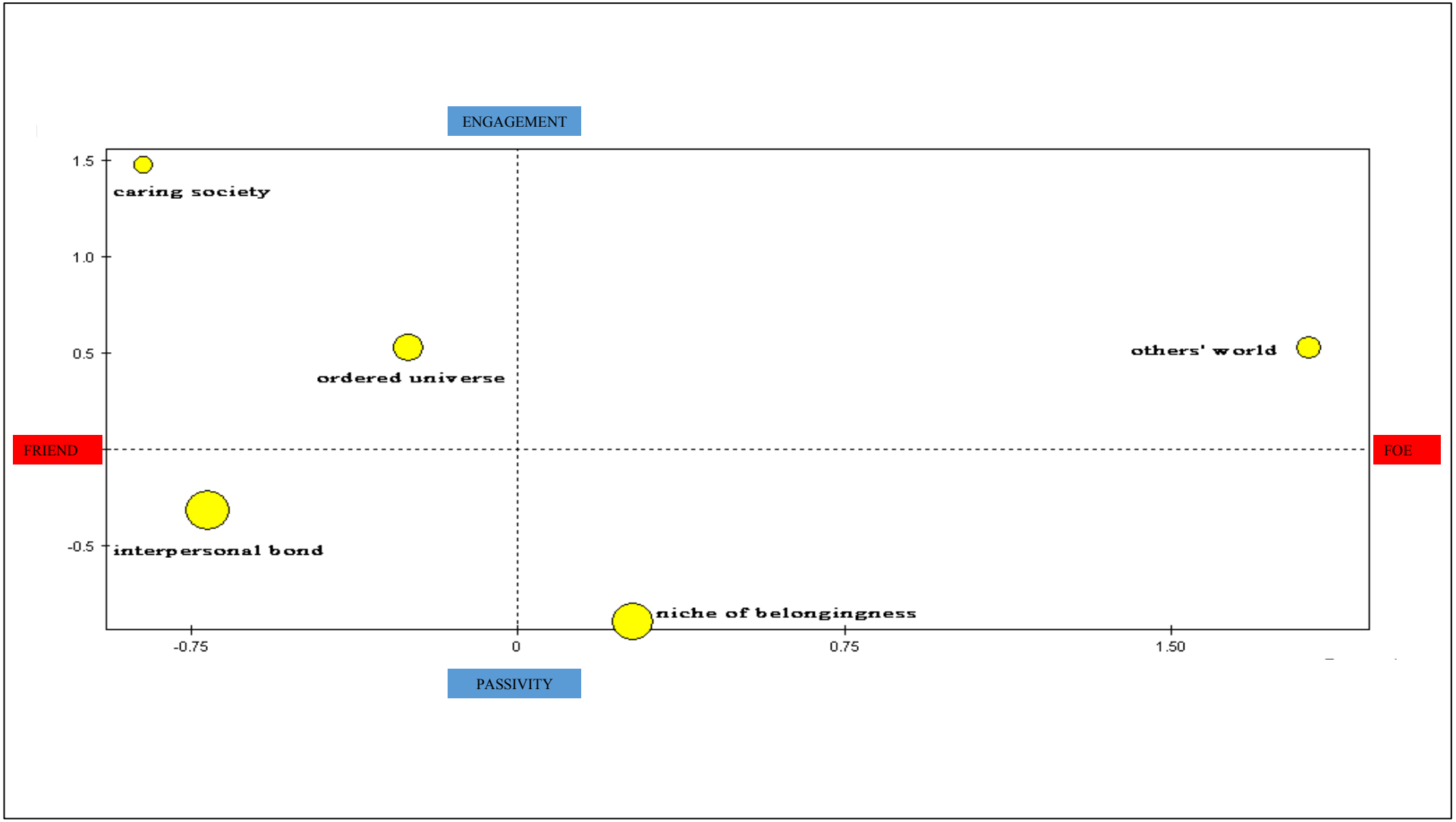


Figure 4.4. Position of the clusters of the semiotic space. Factor 1 vs. Factor 2

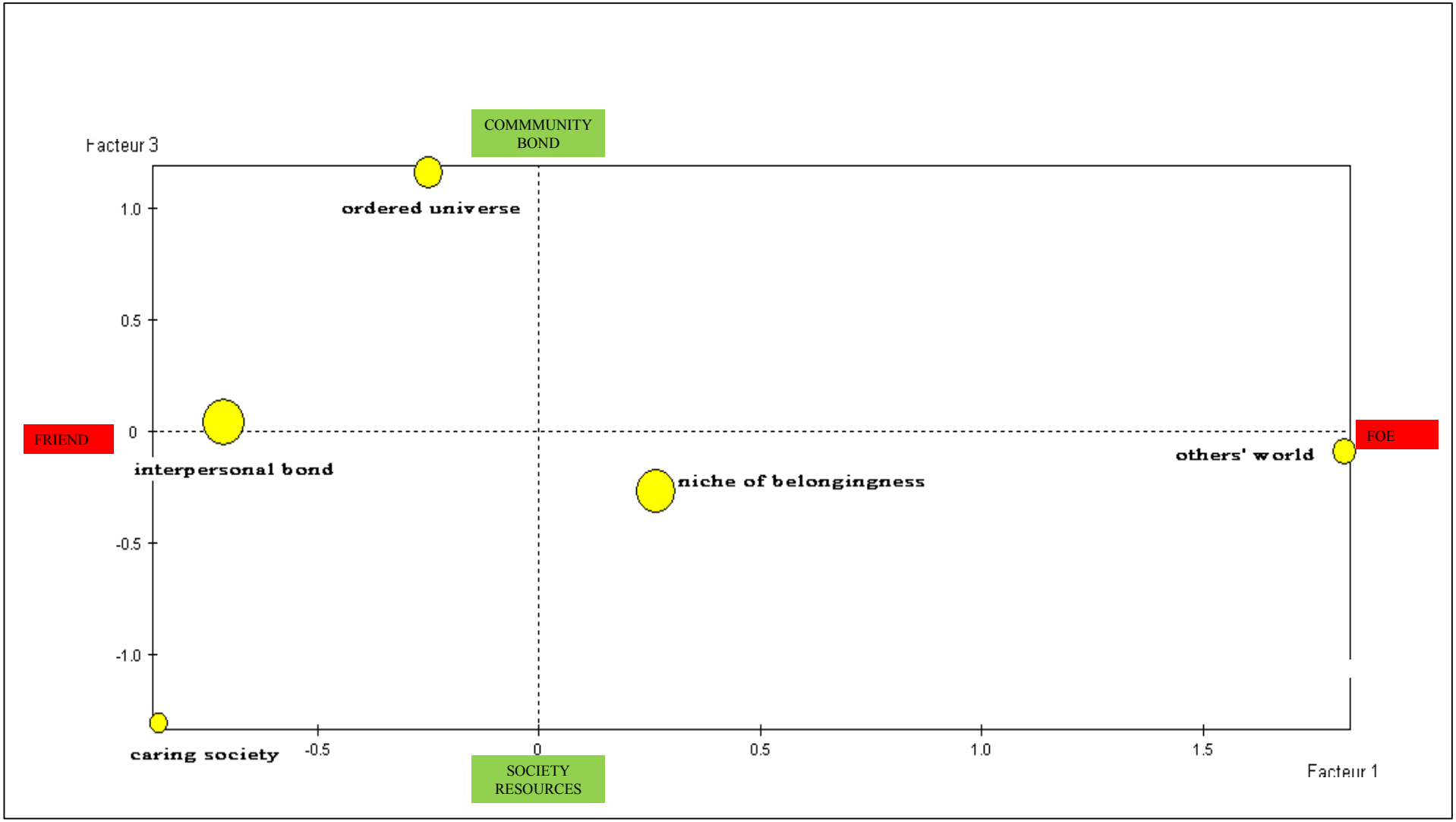


Figure 4.5. Position of the clusters of the semiotic space. Factor 1 vs. Factor 3

4.4.c. Analysis of Reliability and Validity (point c)

Reliability

R1. Independence of findings from sampling procedures

Table 4.5 reports the correlation between the items' factorial coordinates of each L1 factorial dimension and the factorial coordinates of the same items on the corresponding factorial dimensions obtained from the MCA applied on each of the 10 control samples. All correlations are very high – in all but two cases cases the absolute value of the correlation is higher than .900 (the direction of the relation is not relevant – it depends on the random order in which the polarities were extracted).

Table 4.5. Original sample vs. 10 control samples. Comparisons of items' factorial scores

		L1 sample Fatorial Dimension 1	L1 sample Fatorial Dimension 2	L1 sample Fatorial Dimension 3
Sample 0 7027 ss	Pearson Correlation	-,969	,974	,949
	Sig. (2-tailed)	,000	,000	,000
	N	76	73	76
Control sample 1	Pearson Correlation	-,956	,945	-,916
	Sig. (2-tailed)	,000	,000	,000
	N	71	71	71
Control sample 2	Pearson Correlation	,980	,961	-,922
	Sig. (2-tailed)	,000	,000	,000
	N	82	78	77
Control sample 3	Pearson Correlation	,966	,954	-,936
	Sig. (2-tailed)	,000	,000	,000
	N	77	76	70
Control sample 4	Pearson Correlation	-,974	,972	,942
	Sig. (2-tailed)	,000	,000	,000
	N	82	81	73
Control sample 5	Pearson Correlation	-,834	,769	-,947
	Sig. (2-tailed)	,000	,000	,000
	N	72	70	71
Control sample 6	Pearson Correlation	,955	,955	-,927
	Sig. (2-tailed)	,000	,000	,000
	N	70	73	68
Control sample 7	Pearson Correlation	-,956	,945	,933
	Sig. (2-tailed)	,000	,000	,000

	N	70	72	73
Control sample 8	Pearson Correlation	-,964	,965	-,952
	Sig. (2-tailed)	,000	,000	,000
	N	80	76	72
Control sample 9	Pearson Correlation	-,958	,949	,947
	Sig. (2-tailed)	,000	,000	,000
	N	77	72	77
Control sample 10	Pearson Correlation	,983	,975	-,950
	Sig. (2-tailed)	,000	,000	,000
	N	89	82	75

Table 4.6. Stability of clusters

Symbolic universes	*Control Sample 1*	*Control Sample 2*	*Control Sample 3*	*Control Sample 4*	*Control Sample 5*	*Control Sample 6*	*Control Sample 7*	*Control Sample 8*	*Control Sample 9*	*Control Sample 10*	*Median*
Ordered Universe	0.82	0.68	0.82	0.53	0.51	0.82	0.60	0.75	0.43	0.56	0.64
Interpersonal bond	0.6	0.73	0.66	0.63	0.63	0.5	0.6	0.56	0.73	0.56	0.61
Caring society	0.58	0.82	0.82	0.76	0.76	0.82	0.70	0.82	0.76	0.88	0.79
Niche of belongingness	0.72	0.75	0.84	0.63	0.68	0.79	0.70	0.77	0.68	0.81	0.73
Others' world	0.76	0.68	0.65	0.78	0.84	0.73	0.81	0.81	0.84	0.84	0.80

Each cell holds the proportion of modalities that the *ith* symbolic universe and the most similar *ith* control sample's cluster have in common

Table 4.6 reports the comparison between the response profiles characterizing the L1 clusters and the corresponding control samples' clusters. The comparison was carried out in terms of the percentage of coverage, namely the percentage of items characterizing the L1 cluster that are present in the clusters of the control sample (each L1 cluster was compared with the most similar cluster of the control sample). As one can see, the level of association is variable, but in most cases quite high. The median level of coverage varies from 61% (*interpersonal bond*) to 80% (*Others' world*).

R2. Independence of outputs from modality of application

These analyses were confined to the Estonian subsample, because that was the only group of respondents for which data from both modalities of application (online and pen and pencil) were available. First, factorial scores of the respondents that had used the online and pen and pencil mode of application, respectively, were compared by means of ANOVA test. No significant difference was found on any factorial dimension (Table 4.7).

Second, the two modes of application were compared regarding the cluster distribution. Also in this case no difference was found (chi square=1.960[df=4], p.0.743).

Table 4.7. Comparison pen pencil vs. online application (ANOVA)

Country		*Sum of the squares*	*df*	*Mean square*	*F*	*Sig.*

Estonia	VOC1.AFFECTIVE CONNOTATION: friend vs. foe (L1)	Between groups	0.108	1	0.108	1.123	0.293
		Within groups	6.749	70	0.096		
		Tot	6.857	71			
	VOC2.FORM OF DESIRE: passivity vs engagement	Between groups	0.135	1	0.135	2.284	0.135
		Within groups	4.136	70	0.059		
		Tot	4.271	71			
	VOC3.FORM OF DEMAND: systemic resources vs community bond	Between groups	0.072	1	0.072	1.798	0.184
		Within groups	2.786	70	0.04		
		Tot	2.858	71			

In sum, the analyses presented in this section show that factorial dimensions and clusters obtained from L1 analysis do not vary due to contingent circumstances - i.e. sampling procedure - and mode of application. These results, besides being consistent with SCPT assumptions, support the reliability of the L1 outputs. No ponderation of data aimed at balancing the sample was therefore considered necessary.

Validity

Table 4.8 reports comparisons between the interpretation of the factorial dimension obtained from the MCA and 4 alternative interpretations. Comparisons were performed for each factorial dimensions separately and concerned the estimation of the consistency of the content of the interpretation with the output of the factorial dimension, as evaluated by the 15 blind judges (cf. § 4.3.f).

Results support the validity of the interpretations of the 3 factorial dimensions. For each of the 3 factorial dimensions, the interpretation adopted in the study were judged to be the most valid within the set of 5 interpretations provided to the blind judges. Despite the small size of the sample, in all pairs but one (B1 - Passivity vs. Engegment vs B2 - Idealization vs. Negotiation), differences were statistically significant ($p<0.05$) – (in the case of the comparison between the interpretation of the third factorial dimension adopted by the current study [Demand for systemic resources vs. Demand for community bond] and the interpretation [Idealization vs. Negotiation] tended to significant [$p<0.066$]). It is worth noting that the two control interpretations (Idealization vs. Negotiation; Moderation vs Reactivity) showed a middle-low level of association with the second and the third factorial dimensions, and this is consistent with the criterion on which they were selected.

Table 4.8. Assessment of the validity of interpretations of factorial dimensions

	Mean	*Std. Deviation*	*Std. Error Mean*	*t*	*df*	*Sig. (2-tailed)*
Interpretations compared						
A3 - Friend vs Foe - A1 - Passivity vs Engagement	2.694	2.707	0.638	4.223	17	0.000
A3 - Friend vs Foe - A2 - Idealization vs. Negotiation	3.028	2.186	0.515	5.876	17	0.000
A3 - Friend vs Foe - A4 - Moderation vs Reactivity	2.750	2.251	0.531	5.184	17	0.000
A3 - Friend vs Foe - A5 - Demand for systemic resources vs Demand for community bond	3.028	1.719	0.405	7.473	17	0.000

B1 - Passivity vs Engagement - B2 - Idealization vs. Negotiation	0.469	2.418	0.605	0.775	15	0.23
B1 - Passivity vs Engagement - B3 - Friend vs Foe	2.844	1.767	0.442	6.436	15	0.000
B1 - Passivity vs Engagement - B4 - Moderation vs Reactivity	2.344	1.972	0.493	4.753	15	0.000
B1 - Passivity vs Engagement - B5 - Demand for systemic resources vs Demand for community bond	1.906	3.045	0.761	2.504	15	0.012
C5 - Demand for systemic resources vs Demand for community bond - C1 - Passivity vs Engagement	1.615	2.063	0.572	2.823	12	0.015
C5 - - Demand for systemic resources vs Demand for community bond - C2 - Idealization vs. Negotiation	0.885	1.981	0.549	1.610	12	0.066
C5 - - Demand for systemic resources vs Demand for community bond - C3 - Friend vs Foe	2.308	1.750	0.485	4.753	12	0.000
C5 - - Demand for systemic resources vs Demand for community bond - C4 - Moderation vs Reactivity	2.000	1.958	0.543	3.683	12	0.002

The interpretations used in the study are in italics. A, B and C refer to the output of the factorial dimension in accordance to which each pair of interpretations were compared. Numbers 1-5 refer to the interpretations that were compared (presented in causal rank): 1= Passivity vs Engagement, 2= Idealization vs. Negotiation; 3= Friend vs Foe; 4= Moderation vs Reactivity; 5= Demand for systemic resources vs Demand for community bond

4.4.d. L2 analysis. Description of segments associated with symbolic universes of the European sample (point d)

The segment with the highest incidence in the L1 Sample is *niche of belongingness* (31%) (here and henceforth the segments are referred to with the same name as the corresponding symbolic universes), followed by *interpersonal bond* (29.4%); *ordered universe* corresponds to 13.6 % of the sample; the smallest segment is others' world (12.9%) (cf. Figure 4.6)

Figure 4.7 and Table 4.9 report the distribution of symbolic universes broken down to the level of countries. Symbolic universes prove to have different incidence across countries (differences are statistically significant, chi square=757,13 (df=28), p > 0.000). The profile of each country is outlined briefly below (The estimation of the incidence was based on the adjusted residual, taking into account values above 2).

- Cyprus and Greece present higher incidence of niche *of belongingness* and *others' world,* with lower incidence of *interpersonal bond* and *caring society*.
- Denmark presents higher incidence of *interpersonal bond* and *caring society* with lower incidence of *niche of belongingness* and *others' world*.
- Estonia presents higher incidence of *interpersonal bond,* with lower incidence of *niche of belongingness*, and *ordered universe.*
- Italy presents higher incidence of *ordered universe,* with lower incidence of *interpersonal bond, niche of belongingness*, and *caring society.*
- The Netherlands presents higher incidence of *niche of belongingness* and *caring society,* with lower incidence of *ordered universe* and *others' world*.
- Spain presents higher incidence of *ordered universe,* with lower incidence of *caring society.*
- The United Kingdom presents a higher proportion of *niche of belongingness* with lower incidence of *caring society.*

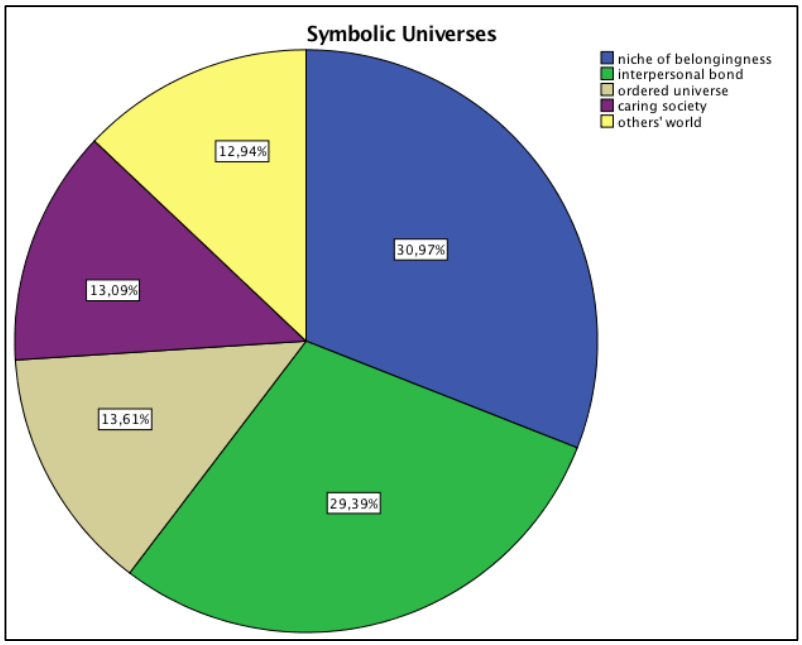


Figure 4.6. Distribution of symbolic universes over the L2 sample

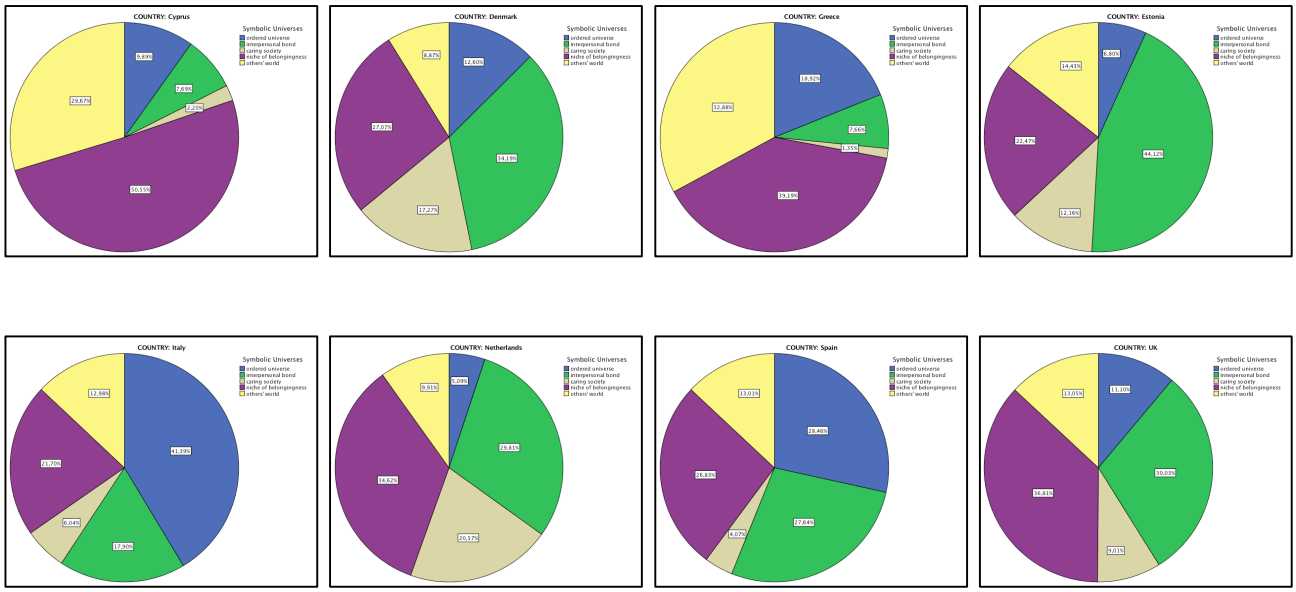


Figure 4.7. Distribution of symbolic universes within country

Table 4.9. Distribution of symbolic universes over the countries

	symbolic universes						
Countries		*ordered universe*	*interpersonal bond*	*caring society*	*niche of belongingness*	*others' world*	TOT
Cyprus	N	9	7	2	46	27	91
	Adj. Residual	-1	-4,6	-3,1	4,1	4,8	
Denmark	N	108	293	148	232	76	857
	Adj. Residual	-1	3,5	4,1	-2,8	-4	
Greece	N	42	17	3	87	73	222
	Adj. Residual	2,4	-7,3	-5,3	2,7	9,1	
Estonia	N	33	214	59	109	70	485

	Adj. Residual	-4,7	7,6	-0,7	-4,3	1	
Italy	N	185	80	27	97	58	447
	Adj. Residual	18,2	-5,7	-4,7	-4,5	0	
Netherlands	N	54	316	218	367	105	1060
	Adj. Residual	-9,4	0,3	8,4	3	-3,4	
Spain	N	35	34	5	33	16	123
	Adj. Residual	4,9	-0,4	-3	-1	0	
UK	N	85	230	69	282	100	766
	Adj. Residual	-2,2	0,4	-3,7	3,9	0,1	
TOT	N	551	1191	531	1253	525	4051

Chi square p > 0.00

Figure 4.8 reports the distribution of symbolic universes over regional areas (NUT1) within each country (analyses concern countries segmented in more than one area only - Greece, Italy, the Netherlands, Spain and the UK). With the exception of Italy, the incidence of symbolic universes did not differ within the country. In the case of Italy, differences depend on the fact that the North-east and North-west are characterized by higher incidence of *caring society*, whereas South proved to be characterized by higher incidence of *others' world* (chi square= 40,99[df=16], p<.001.

Figure 4.9 and table 4.10a-f reports the socio-demographic profile of segments.

Segments are differentiated as to age (ANOVA[df 4/4046]: F=5.181; p<.00). Differences are due to *others' world* and *interpersonal bond* that are charachterized by lower age than others symbolic universes (cf. Figure 4.9)

As to gender, *ordered universe* is characterized by higher proportion of women, while *niche of belongingness* proved to have higher incidence of men (chi square=17.939[4], p<.001). Segments present significant differences as regards education (chi square=91.328[8], p<.000) and also occupation (chi square=164.700[68], p<.000). As to the former case, *ordered universe* and *interpersonal bond* have a higher relative proportion of tertiary education (>13 years of education); the opposite occurs to *others' world*, and *niche of belongingness*, which are over-represented within the lower levels of education (both <10y and 10-13y). As to the latter education level, the highest relative proportion of *ordered universe* consists of teachers; *interpersonal bond* is over-represented by legal, social, cultural professions and students; *caring society* by housewifes; *niche of belongingness* is over-represented by people not currently engaged in employment; *others' world* is over-represented by plant and machine operators.

As to civil status (i.e. married/not married; parent/not parent; living with family of origin/not living), the segments did not show significant differences, and nor did years of permanence in the current living place nor living or not in the country where one was born.

Symbolic universes differ as to family size (chi square=26.106[12], p<.014). Differences are due to *others' world* that is associated with largest family sizes (>7 units) and *caring society* that is characterized by a respondent living in a one-member family.

Finally, the segments present significant differences as to the state of health in the previous two years (chi square=401.240 [16], p<.000) and voluntary activity (chi square=43.512[4], p<.000). As regards state of health, "much worse" and "quite a lot worse" characterize *others' world*; *niche of belongingness* is associated with "quite a lot worse" and "neither worse nor better"; *caring society* and *ordered universe* with the category "much better" (also *ordered universe* with "quite a lot better"); *interpersonal bond* with "quite a lot better" and "neither better nor worse"

As to volunteer activity, it proved to characterize *ordered universe* and *caring society*, whereas its absence is typical of *others' world,* and *niche of belongingness*

Taken as a whole, the socio-demographic characterization of segments of population associated with symbolic universes is consistent with the way the latter are interpreted: symbolic universes associated with a critical connotation of the world (*others' world, niche of belongingness*) are

associated with more critical social characteristics (countries more exposed to the crisis; older age, lower levels of education, and less valuable occupation; larger family size, worse health conditions), as such presumably more exposed to the uncertainty of the contemporary socio-political scenario. Moreover, they show a lower likelihood of being engaged in voluntary community activity.

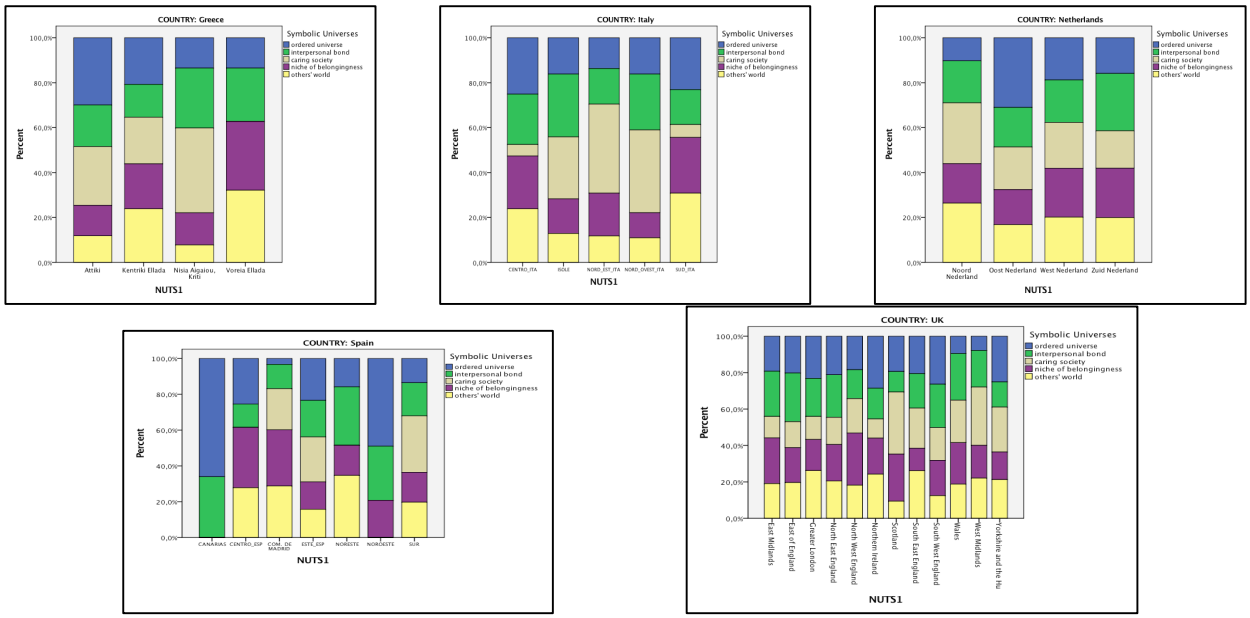


Figure 4.8. Distribution of symbolic universes within NUTS1 (Greece, Italy, Netherlands, Spain, UK)

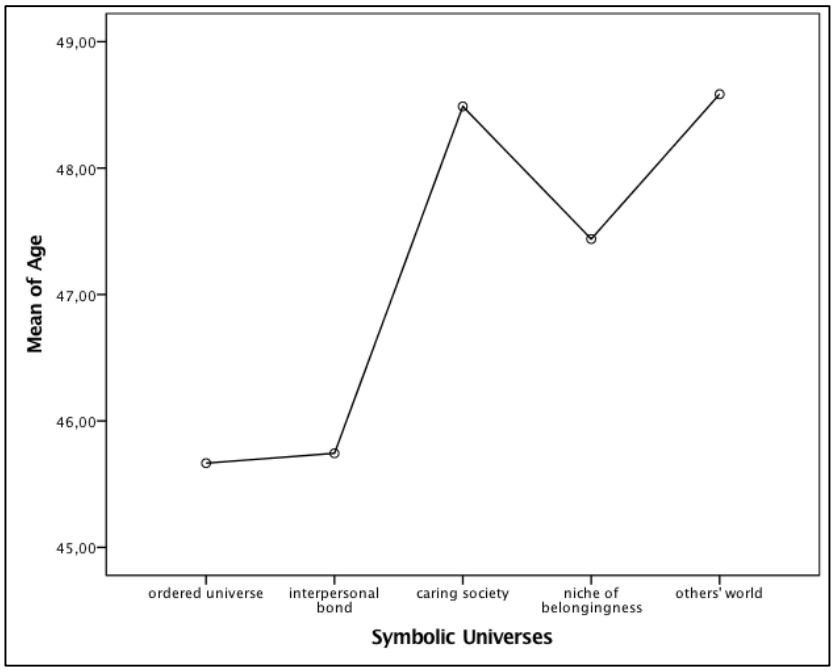


Figure 4.9. Average age of symbolic universes

Table 4.10. Socio-demographic characteristics of clusters

a. Gender

	Symbolic universes					
	Ordered Universe	*Interpersonal bond*	*Caring society*	*Niche of belongingness*	*Others' world*	*Tot*

M	N	228	546	268	638	260	1940
	Stand. Res.	-3.3	-1.7	1.3	2.6	0.8	
F	N	323	645	263	615	265	2111
	Stand. Res.	3.3	1.7	-1.3	-2.6	-0.8	
	Tot	551	1191	531	1253	525	4051

Chi square p >0.000

b. Education

		Symbolic universes					*Tot*
		Ordered universe	*Interpersonal bond*	*Caring society*	*Niche of belongingness*	*Others' world*	
< 10 y	83	190	99	289	132	793	83
	-2.7	-3.8	-0.9	3.7	3.7		-2.7
10-13 y	88	239	118	320	134	899	88
	-3.6	-2.1	-0.3	3.4	2.3		-3.6
> 13 y	334	679	290	561	213	2077	334
	5.4	4.9	1	-5.9	-5		5.4
	Tot	505	1108	507	1170	479	3769

Chi square p >0.000

c. Occupation

		Symbolic universes					*Tot*
		Ordered universe	*Interpersonal bond*	*Caring society*	*Niche of belongingness*	*Others' world*	
Manager	N	52	96	43	84	37	312
	Stand. Res.	1.6	0.5	0.1	-1.6	-0.2	
Health prof.	N	37	61	23	45	13	179
	Stand. Res.	2.8	1.4	-0.3	-1.8	-2.1	
Teaching professionals	N	51	68	28	48	16	211
	Stand. Res.	4.6	0.9	-0.1	-2.7	-2.1	
Legal. social. cultural prof.	N	32	66	23	39	18	178
	Stand. Res.	1.7	2.3	-0.3	-2.7	-0.9	
Science and engineering prof.	N	18	42	16	32	12	120
	Stand. Res.	0.4	1.3	-0.1	-1.1	-0.8	
Other professionals	N	22	50	25	69	20	186
	Stand. Res.	-0.8	-0.8	-0.1	1.8	-0.6	
Clerical support workers	N	52	122	52	133	40	399
	Stand. Res.	-0.4	0.5	-0.3	1.1	-1.4	
Service and sales workers	N	23	80	32	80	30	245
	Stand. Res.	-2	1.1	-0.2	0.6	0	
Skilled agricultural forest, fish. workers	N	3	14	5	20	5	47
	Stand. Res.	-1.5	0	-0.6	1.7	-0.3	
Craft and related trades workers	N	13	38	16	58	26	151
	Stand. Res.	-1.9	-1.2	-1.1	2	1.9	
Plant and machine operators	N	4	20	11	27	18	80
	Stand. Res.	-2.3	-0.9	0	0.5	2.8	
Armed forces occupations	N	1	7	2	10	3	23
	Stand. Res.	-1.3	0.1	-0.7	1.3	0.1	
Student	N	58	111	39	74	31	313
	Stand. Res.	2.6	2.4	-0.6	-3	-1.3	
Housewife	N	15	39	36	73	29	192

	Stand. Res.	-2.4	-2.9	2.2	2.2	1.3	
Looking for first job	N	4	11	4	18	5	42
	Stand. Res.	-0.8	-0.5	-0.8	1.7	-0.1	
Not currently engaged in employment	N	19	34	21	74	31	179
	Stand. Res.	-1.2	-3.2	-0.7	3.1	2.1	
Retired	N	77	178	101	205	94	655
	Stand. Res.	-1.6	-1.4	1.5	0.2	1.9	
Other	N	0	0	0	2	1	3
	Stand. Res.	-0.7	-1.1	-0.7	1.3	1.1	
Tot		481	1037	477	1091	429	3515

Chi square p >0.000

d. Size of family nucleus

		Symbolic universes					*Tot*
		Ordered universe	*Interpersonal bond*	*Caring society*	*Niche of belongingness*	*Others' world*	
1	N	73	198	109	194	82	656
	Stand. Res.	-2.3	0.2	2.5	-0.5	0.2	
2--4	N	351	719	319	742	273	2404
	Stand. Res.	1.8	0.1	-0.8	0.8	-2.3	
4--7	N	54	115	39	116	57	381
	Stand. Res.	0.2	0.1	-2	0	1.7	
>7	N	12	23	12	23	20	90
	Stand. Res.	-0.2	-0.9	-0.1	-1	2.9	
Tot		233	490	1055	479	1075	432

Chi square p >0.000

e. State of Health

		Symbolic universes					*Tot*
		Ordered universe	*Interpersonal bond*	*Caring society*	*Niche of belongingness*	*Others' world*	
Much worse	N	11	17	17	60	86	191
	Stand. Res.	-3.2	-6.4	-1.9	0.1	13.7	
Quite worse	N	72	154	70	270	132	698
	Stand. Res.	-2.6	-4.7	-2.9	4.8	5.3	
Neither worse nor better	N	176	494	216	522	131	1539
	Stand. Res.	-2.9	3.1	1	3.1	-6.6	
Quite better	N	172	376	144	282	91	1065
	Stand. Res.	3.1	5.1	0.2	-3.9	-4.9	
Much better	N	74	65	57	41	44	281
	Stand. Res.	6.6	-2.4	3.5	-6.2	1.5	
Tot		505	1106	504	1175	484	3774

*Chi square p<0

f. Voluntary activity

		Symbolic universes					*Tot*
		Ordered universe	*Interpersonal bond*	*Caring society*	*Niche of belongingness*	*Others' world*	
Yes	N	184	325	173	268	111	1061
	Stand. Res.	4.1	0.9	3.2	-4.7	-2.3	
No	N	312	749	316	849	338	2564
	Stand. Res.	-4.1	-0.9	-3.2	4.7	2.3	

Tot	496	1074	489	1117	449	3625

*Chi square p<000

4.5. Part 1 Summary

Part 1 of this report was devoted to the analysis of symbolic universes and the semiotic field underpinning them.

The analyses were based on the responses to the VOC questionnaire, applied to adjusted samples (L1-L2 samples) obtained from a convenience sample (sample 0), and covering 11 European countries.

In a nutshell, the main finding can be summed up as follows.

First, three latent dimensions of sense (*lines of semiotic force*, according to the terminology adopted) were identified as the grounds of the semiotic field of European societies (AFFECTIVE CONNOTATION OF THE WORLD – *foe* vs. *friend;* DIRECTION OF DESIRE - *passivity vs engagement;* FORM OF DEMAND – *demand for systemic resources* vs. *demand for community bond)*. These dimensions shape the experience in terms of a very basic form of pertinentization of components of the relation with the world: the value (positive vs. negative), the direction of the experience (towards vs. from) as well as its fundamental content (functionality vs. identity).

Second, the content of the lines of semiotic force supports the view of them (and in particular of the first two) as pre-semantic, affective-laden, generalized structures of meanings crossing the socio-cultural milieu and working as the grounds of the latter's variability.

Third, 5 symbolic universes - *interpersonal bond, ordered universe, caring society, others' world, niche of belongingness* - were identified at the level of the whole European sample. Each of them consists of a generalized mindset, a worldview working as attractor exercising a semiotic gravitational force on the way persons feel, think and act. Similarities and differences among the 5 symbolic universes substantiate the variability of the European cultural scenario. Two of these symbolic universes (*ordered universe, interpersonal bond, caring society)* can be viewed as semiotic resources for civil and social development; other two symbolic universes appear as symptoms of the critical conditions of the European context as well as obstacles for policies aimed at addressing them (*others' world, niche of belongingness*). Moreover, the analysis has shown that *others' world* is a sort of semiotic black hole: it leads to experience being lived in absolutely negative terms – for those who are characterized by this symbolic universe, the world appears fully extraneous and aggressive, a jungle. From within this worldview no positive elements, no resource can be seen, any critical aspect is felt as a further sign of the totally negative reality. In the dark night everything cannot but be black - there is no room for variability, modulation, time; no possibility of changing what is inherently and fully alien; what remains it the reactive acceptance of the existent as the way of surviving.

Fourth, the analysis showed that also in the case of symbolic universes that can be considered semiotic resources, critical issues are involved. Indeed, the positive connotation of the world expressed by the *interpersonal bond* seems to be reached at the cost of the absolutization of emotional relational life and the backgrounding of any reference to what is beyond it – a kind of *emotional hedonism*: this symbolic universe can be depicted with the statement made by the famous song – *all I need is love*. As to the other two symbolic universes, they imply a virtuous combination between engagement and recognition of the super-ordered, systemic dimension of social life – in one case (*ordered universe*) the combination is based on the anchorage to an axiological belief about how the world is and therefore how things must go; in the other case the anchorage is to the view of the system as the provider of resources and services whose consumption makes up the individual's autonomy. However, both of these symbolic universes need to be recognized within their limits – indeed indications from the analyses (in particular: their opposite position on the polarity of the third semiotic line of semiotic force) lead to the view that they represent radicalized forms of interpretation of the community/system dialectics marked by two opposed forms of absolutization – the absolutization of the normative valence of one's

communitarian identity/system of values and the absolutization of the demand for consumption of systemic goods. As such, they are hardly generalizable over societies, whereas their expansion could have paradoxical effects:

- It is hard to image how the identification with an axiological system of beliefs - be it an ethical, religious or political credo enacted by the *ordered universe* - could be generalized within secularized contexts like contemporary European societies characterized by post-modern scepticism towards grand narratives. On the other hand, given the absolute nature of the identity credo, its generalization could only come about through society's assimilation/homogenisation to it, namely through the reduction of differences and identity pluralism. And this means that the *ordered universe* is inherently unable to be generalized – it involves the reference to a super-ordered level of social life, but this reference is anything but a form of universalism. Indeed, the only form of generalization of *ordered universe* cannot but consist of the expansion within society of a form of identity which, regardless of its diffusion, remains (by definition) particular and partial. Forms of social and political engagement fostered by the identification with a unifying, all encompassing, idealized super-ordered communitarian system of belief – be it the Nation, the soul of the people, the ethnic identity, the religious credo - provide instances of the fact that, when axiological identity systems try to be universalized, what they actually do is trigger more or less violent processes of radicalization and hegemony over society. Such forms show that the distinction between universalism and systemic expansion of identity is very narrow but of great relevance.[36]
- *Caring society* is the expression of trust in well-functioning institutions that are able to support personal agency, sense of self-efficacy and control over life. Thus, the capacity of this symbolic universe to recognize the systemic level of life is fostered and consists of the recognition of the common goods that are available at this level. In the final analysis, the system is seen and experienced in terms of its availability for consumption. Therefore it seems that this symbolic universe cannot be generalized beyond the segment of European societies that can happily have access to systemic resources, at level that is profitable enough to foster the sense of self-efficacy and trust in life. Needless to say, European countries and institutions can work on expanding this segment – yet it is unrealistic to imagine that in the medium term it could be enlarged to encompass the whole European population. On the other hand, even if it were so, it would mean that this symbolic universe is not a cultural input of the socio-economic and civic development of European societies, but the output of the latter. More in general, the recognition of the systemic level of life in terms of consumption is not generalizable because it is inherently partial - indeed, it pushes into the background the other side of the system, namely the requirement/constraints concerning the production of common goods.[37]

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[36]. In a speech given during the 2017 electoral campaing Marine Le Pen, president of the ultra-right wing French party – Front National – has stated that no difference concerning age, sex, social class or religious credo has to be considered, since all are French people. One can ask – is this a form of universalism? Or rather is it the perspective of the expansion of a particular identity – Frenchness – which while making what is inside it universal, displaces otherness (what is not French) outside, though to a higher level?

[37]. An example of how consumption is unable to work as general form of universalization is provided by what happens in the domain of service management. First, in this domain is clear that the perfect service is inherently impossible because any expansion of the service's capacity to generate value entails the reduction of the value to a different dimension of use (e.g. it is not possible to have express cooking and not to wait at the restaurant). Accordingly, the value of a service is always and necessarily contingent to a model of use. Second, it has been recognized that the increase in the quality of services has often generated a condition of conflict with users (the so called paradox of rising expectations); this is due to the fact that quality of service leads the user to identify with the service and to ask more of the provider. In the terms of

Fifth, the incidence of symbolic universes varies in terms of both European territorial areas and socio-demographic characteristics (e.g. age, gender, education). Symbolic universes characterized by negative connotation of reality (*others' world, niche of belongingness*) are associated with more critical forms of social participation as well as territories that were more exposed to crisis. On the other hand, taking the European context as a whole, it can only be seen as critical that the two problematic symbolic universes correspond to about 40% of the whole sample.

our discussion. when consumption is the only form of experience of the resource, the user's consumption of quality can only produce further demands for quality.

5. PART II. SOCIO-ECONOMIC AND PSYCHOLOGICAL CHARACTERIZATION OF SYMBOLIC UNIVERSES

5.1. Aims

This area of investigation is aimed at assessing the relation of symbolic universes with:
A) the psychological dimensions of the subjectivity, namely the way higher mental functions (e.g. way of feeling and thinking; beliefs, personality traits) work;
B) (broadly speaking) socio-economic correlates (e.g. forms of social behavior, economics factors and activities).

The assessment of these two domains of association plays a relevant role in the economy of WP3 and more in general of the Re.Cri.Re. project.:

A) It is expected to lead to a better understanding of the role that symbolic universes play in shaping the psycho-social dynamics and more in general the life of European societies, therefore the alleged circular linkage between the socio-economic crisis and symbolic universes.
B) It is expected to provide a normative framework to the interpretation of symbolic universes. Indeed, due to their nature as systems of meanings, symbolic universes may be analysed in scientific terms, but their evaluation is not a matter of science. On the other hand, the normativity associated with the psychological and socio-ecological correlates (namely, the possibility of differentiating the desirableness of correlates in accordance to the common ground and in terms of functional analysis) will also make it possible to evaluate normatively symbolic universes associated to them. In other words, symbolic universes detected by the analysis will not be evaluated in themselves, but in their progressive/regressive value, in terms of the social desirableness of their socio-ecological and psychological correlates.

The analysis of the psychological ad socio-ecological correlates are strictly intertwined at the conceptual level; however, given the different kinds of data they are grounded on, they follow different methodological designs. Accordingly, they are presented separately.

5.2. Part II.A. Socio-economic correlates of symbolic universes

5.2.a. Framework

The trans-domain approach

The analysis is based on the SCPT view of culture in terms of field. The cultural milieu is conceived of as the *structure of variability* that grounds and channels the individual trajectories of sensemaking.[38] This means that the cultural milieu and symbolic universes do not consist of representational content only; rather, they are considered dynamic patterns of co-occurring signs – namely representations, events, states, qualities and objects, sourced from a variety of

[38]. It is worth specifying that the relation between the structure of variability and the contents (i.e. signs) is mutually constitutive. In fact, on the one hand, it is obvious that the patterns of co-occurrence are made up of signs that tend to be associated with each other. Yet this is only half the story. On the other hand, in fact, patterns define signs. This derives directly from Peirce's definition of the sign presented above - a sign is what follows the previous signs, for the sake of interpreting them, in so doing developing the semiotic chain. Thus, a sign is not a sign because of particular, substantial characteristics. Rather, a sign is what is used as a sign (i.e. as an interpretant) – *it is a function, not a thing*. And in the final analysis this means that a sign is a sign because it is part of the dynamic pattern comprising the transition among signs.

phenomenical domains (attitudes, behaviours, as well as macro-economic, urban characteristics, organizational and institutional models, geographic forms, and so forth) (cf. § 3). Accordingly, the linkages between the content level of symbolic universes (as mapped by area of investigation 1) and socio-economic phenomena have to be interpreted in terms of circular trans-domain interconnections between elements of a dynamic gestalt, rather than in terms of cause-effect linear linkages (Heft, 2013; Salvatore & Venuleo, 2013).
The SCPT view of culture therefore entails a *trans-domain approach* to the analysis of the cultural milieu. Accordingly, markers from a large number of domains – feelings, ideas, behaviours, but also artefacts, geo-anthropic characteristics, urban structures and even structural and environmental qualities – may be used for mapping the semiotic field. When detected, the trans-domain character of the co-occurrences means that their associations can be interpreted as the manifestation of the generalized meanings that shape the inherent organization of the semiotic field.

Strong and weak view of the relation between socio-economic conditions and symbolic universes
It is worth noticing that two different views can be adopted in interpreting the relation between cultural and ecological domains of analysis. The *strong* view assumes the ontological continuity between the symbolic phenomena and the phenomena marked by the socio-economic indicators. The *weak* view is agnostic as to the ontological relation between the two domains. According to the weak view, therefore, the cultural milieu and the socio-economic phenomena may be considered two different phenomenical domains that may interact with each other. This leads linkages to be interpreted in terms of reciprocal functional influence, rather than in terms of being co-constitutive (for a discussion of this point, see Heft, 2013).
On the other hand, the difference between the two views is relevant more at the level of theory than at the empirical level. Actually, at the latter level, the weak view can be seen as an efficacious approximation of the strong view, which enables the domain of investigation to be simplified for the sake of empirical analysis. Accordingly, despite the fact that SCPT takes the strong view, the methodological framework adopted lends itself to be enacted in terms of the weak view. Consistently with such a choice, we have adopted the term "correlates", which implies an interactive, rather than a co-constitutive relation between the socio-economic and cultural domains. In the same vein, we use the terms "cultural" and "semiotic" to denote the phenomena and processes mapped by the VOC survey.

Abductive logic of analysis
The assumed field nature of the cultural milieu makes the traditional deductive-inductive approach unsuitable. Indeed, the field is characterized by the fact that the value of an element is not a fixed property but depends on its variable field position. Consequently, it is not possible to attribute an *a priori* invariant content to factors in order to measure the extent of their relevance since these factors are an inherent property of the element (Lauro-Grotto et al, 2009; Salvatore et al, 2009).
It follows that the methodology chosen is a bottom up, abductive logic of analysis. According to this logic, each territorial site is detected in terms of a large number of (broadly speaking) socio-economic indicators. Each indicator detects a given domain-specific component/characteristic (i.e. risk propensity; level of unemployment) which – in certain circumstances and conditions - could be associated with other components (of the same or other domains), thus acquiring the specific local meaning of such an association. No general and invariant meaning is therefore attributed to components; rather, they are interpreted in terms of how they combine with each other within and across territorial sites – namely in terms of the field patterns they make up.
The abductive, bottom-up characteristic of this logic lies in the fact that *patterns are not assumed prior to analysis, but recognized as the (abductive) interpretation of profiles of co-occurrences (*i.e. associations of indicators that tend to be redundant across the units of analysis). Then, in the same vein as the logic adopted for interpreting the output of the multidimensional analysis performed on the responses to the VOC survey, each pattern is interpreted as the marker of the salience of a

certain situated socio-economic scenario of which this grouping is a manifestation.[39] In turn, that socio-economic scenario is analysed in its association with the cultural milieu.

5.2.b. Method

Linkage between socio-economic phenomena and symbolic universes

Specific to the methodological strategy adopted is the reference to the *territorial site as unit of observation*. This is due to the fact that socio-economic indicators, by definition, concern territories and communities. Thus, the way socio-economic characteristics combine with each other can only be studied in a certain spatial context inhabited by a certain human group and in so doing the socio-economic scenario of that human place can be highlighted.

On the other hand, the adoption of the territorial site as unit of observation does not represent a methodological constraint on the possibility of linking the socio-economic analysis with the map of the cultural milieu obtained from Area of investigation 1 (cf. § 4). Indeed, even if the latter analysis was implemented on the basis of individual responses to the VOC survey, *the parameters in terms of which symbolic universes and semiotic field have been mapped can be used for defining second-order indicators*, namely indicators that have the local social group as their unit of analysis. Accordingly, it is at this second-order level that the two paths of analysis (i.e. the map of symbolic universes and the socio-economic analysis of territorial sites) can be linked – namely at the level of the analysis of the territorial site, the latter intended as the gestalt unity of a certain social group living (and therefore shaping as well as being constrained by) a certain unit of space.

It is worth noticing that this possibility is inherently consistent with the SCPT field definition of the cultural milieu in terms of the organization of the variability of the individual trajectory of sensemaking (cf. § 3). Indeed, as SCPT conceives it, the cultural milieu concerns the situated social group as the semiotic landscape underpinning the individual ways of feeling, thinking and acting. Accordingly, constructs of semiotic lines of force, semiotic field and symbolic universes refer to neither the individual level of analysis nor the broad socio-institutional structures (e.g. the countries); rather, they refer to the local systems of social life, embedded within a given, quite homogeneous and spatially defined place.[40]

Design

According to the framework outlined above, the analysis of the socio-economic correlates of symbolic universes was done in terms of the following two paths of analysis:

I) Association between cultural milieu and socio-economic conditions.

II) Association between cultural indicators and UK referendum on EU

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[39]. The specificity of abductive logic lies in the fact that it is aimed at identifying the explicative element by reconstructing it from the clues/effects that reveal it. One can picture this approach to analysis through an analogy with fishing: a bottom-up abductive fisherman is one who, not knowing what kinds of fish are in a given sea site, catches them by using a combination of different lures and types of fishing equipment in order to recognize the kinds of fish in the sea, namely the fish that can be "abducted" as the one corresponding to the combination of lures and fishing instruments that prove successful in that sea site. The fish to be caught are scenarios.

[40]. This can be seen at the computational level of the analysis. In fact, the analysis of the lines of semiotic force were based on the factorial dimensions extracted from the Multidimensional Correspondence Analysis applied on the responses to the survey. Now, the factorial dimensions are structures of variability; as such, they do not concern the individual, but are a way of detecting a component of the organization of the whole response matrix. Needless to say, they can be used them for detecting the individual case, but this is done in terms of the analysis of the position of the case within the population's variability, rather than considering the factorial dimension as the measure of an inherent property of the individual (for the development of this argument in the context of criticism of the way personal traits are interpreted in current psychological studies, see Lamiell, 1998).

Below the methods of the two analyses are presented separately.

I) Association between cultural milieu and socio-economic conditions.

Sample

The assessment of the association between second order cultural indicators and socio-economic scenarios was carried out on 30 NUTS2 (Nomenclature of Territorial Units for Statistics, level 2) territorial sites involved in L1 sample, for which there were information available (Table 5.1). The territorial sites sampled corresponds to n=1766 subjects in analysis

Table 5.1. Territorial sites sampled

Kesk-Eesti (Estonia)
Laane-Eesti (Estonia)
Louna-Eesti (Estonia)
Pohja-Eesti (Estonia)
Provence-Alpe (France)
Attica (Greece)
Central Greec (Greece)
Crete (Greece)
Western Greec (Greece)
Central Macedona (Greece)
Eastern Macedonia (Greece)
Western Macedonia (Greece)
Cyprus
Lazio-Roma (Italy)
Puglia (Italy)
Toscana (Italy)
Malta
Madrid (Spain)
Greater London (UK)
North East England (UK)
North West England (UK)
Northern Ireland (UK)
Scotland (UK)
South East England (UK)
South West England (UK)
Wales (UK)
West Midlands (UK)
Yorkshire and the Humber (UK)
East of England (UK)
East Midlands (UK)

Indicators

Table 5.2 provides a detailed description of the variables used in the Path I empirical analyses and their descriptive statistics..

Socio-economic indicators were retrieved from different European-wide and worldwide databanks and databases, such as Eurostat, European Election Database (EED), OECD, Bank of Europe, the EU Taxes Database, the World Health Organization (WHO).

Data analysis

With the aim of investigating the correlation that exists between each of the three three latent dimensions of sense (lines of semiotic force, according to the terminology adopted) measured estimated through factorial analysis - which are labeled LSF1 (friend vs foe), LSF2 (passivity vs engagement) and LSF3(demand for systemic resources vs demand for community bond) - and a set of individual-level and regional-level economics-related covariates, our empirical strategy relies on two alternative regression methodologies. Before examining them, it is worth noting that given the cross-sectional nature of the data under analysis the existence of any causal link between our variables cannot be proved and therefore the aim of the following elaborations is to identify robust *ceteris paribus* correlations between the dependent variable and the set of covariates used.

OLS regression

The OLS estimate of the following equation allows to inspect the links existing between our covariates and the dependent variables:

$INDEX_{ij} = \beta_0 + \beta_1 X_i + \beta_2 Z_j + \varepsilon_{ij}$ [1]

where INDEX represents the value of LSF1 (or, alternatively, LSF2 or LSF3) reported by the *i-th* individual in the region *j*, X_i represents a set of individual-level variables, Z_j represents a set of individual-level variables, β_0, β_1 and β_2 are the parameters to be estimated and ε is a normally distributed error term. Since we might presume that "individuals within the aggregated level such as state (or a region) are clustered so that they are in fact more similar to one another than individuals from another state" (Cheah, 2009, p. 1), when running the OLS regressions we conservatively cluster the standard errors at the region level**.**

Multilevel modeling

Multilevel models are specifically designed to analyze data having a hierarchical (clustered) structure with observational units nested within groups (Mason et al., 1983; Goldstein, 1986; Longford, 1987). In this case, the observed heterogeneity of units' behaviors or performances may jointly depend on units' characteristics (level 1 characteristics) and/or on characteristics of the group they are part of (level 2 characteristics) and failing to take this specific structure into account might lead to biased estimates of the impact exerted on the phenomenon under investigation by level 1 and level 2 features .

The data analyzed in this study present a hierarchical structure since the individuals involved in our survey (level 1 units) are nested into NUTS2 European regions (level 2 groups). Therefore, a set of multilevel regression analyses is carried out by alternatively using LSF1, LSF2 and LSF3 as the dependent variable. Each set of analysis is carried out through three steps. In the first step we estimate a null model that allows to partition the total variance of the dependent variable into individual-level and region-level variance. In the second step (random intercept model) we analyze the contribution of individual-level covariates in explaining individual-level variance of the dependent variable. Finally, in the third step region-level covariates are introduced with the aim of explaining region-level variance of the dependent variable. Details about these three steps are presented in the following subsections.

Step 1. Null model

For the *i-th* individual in state *j* INDEX may be modeled as follows:

$INDEX_{ij} = \beta_{0j} + \varepsilon_{ij}$ [2]

where β_{0j} is the mean INDEX value reported by each region and ε_{ij} shows how an individual deviates from the mean observed in the region where he resides.
We can model β_{0j} as follows:
$\beta_{0j} = \gamma_{00} + \delta_{0j}$ [3]

where γ_{00} is the general mean in the data and δ_{0j} is regional deviance from this general mean.
Plugging [3] into [2] we have:
$INDEX_{ij} = \gamma_{00} + \delta_{0j} + \varepsilon_{ij}$ [4]

We are interested in estimating γ_{00} (the general mean in the data) and in estimating Var(ε_{ij}) and Var(δ_{0j}), whose values allow us to understand how much part of the variability of INDEX is observed at the individual level and how much part of it is observed at the region level.

Step 2. Random intercept model
When we add a vector of individual-level covariates (X) to [2] in order to explain individual-level variability from the regional mean value, the estimated equation becomes as follows:
$INDEX_{ij} = \gamma_{00} + \delta_{0j} + \gamma X_{ij} + \varepsilon_{ij}$ [5]

The estimates allow to check how much influence is exerted by X on INDEX and to verify how much part of the variability of INDEX is still observed at the individual level and how much part of it is observed at the region level once X is accounted for.

Step 3. Explaining variation in the intercept
In order to explain part of variability in the β_{0j} region-level intercept, a region-level covariate (Z) might be introduced in the model. In this case we assume that [3] may be written as follows:
$\beta_{0j} = \gamma_{00} + \zeta Z_j + \delta_{0j}$ [6]

which means that the region level intercepts are explained by the general mean of INDEX, by the ζ effect of the Z variable and by regions' deviance from the general mean (δ_{0j}).

Therefore, plugging [6] into [2] and adding a vector of individual-level covariates as it is done in [4], we have the following:

$INDEX_{ij} = \gamma_{00} + + \zeta Z_j + \delta_{0j} + \gamma X_{ij} + \varepsilon_{ij}$

Table 5.2. Association between cultural milieu and socio-economic conditions. Variable used

Variable label	Description	Obs	Mean	Std. Dev.	Min	Max
LSF1	**L1 Line of semiotic force CONNOTATION OF THE WORLD (friend-foe)**	**1,766**	**-0.03**	**0.36**	**-1.54**	**0.55**
LSF2	**L1 Line of semiotic force DIRECTION OF DESIRE (passivity-engagement)**	**1,766**	**2.55**	**1.12**	**1**	**4**
LSF3	**L1 Line of semiotic force FORM OF DEMAND (systemic services-commun. bond)**	**1,766**	**2.32**	**1.11**	**1**	**4**
SEX=F	dummy=1 for female	1,762	0.52	0.50	0	1
STATUS=married	dummy=1 for married	1,556	1.40	0.49	1	2
STATUS=separated	dummy=1 for separated/divorced	1,555	1.90	0.29	1	2
STATUS=widowed	dummy=1 for widowed	1,556	1.94	0.24	1	2
EDUCATION=1	dummy=1 for 6-9 years of formal education	1,561	0.12	0.32	0	1
EDUCATION=2	dummy=1 for 10-13 years of formal education	1,561	0.27	0.45	0	1
EDUCATION=3	dummy=1 for 14-17 years of formal education	1,561	0.32	0.47	0	1
EDUCATION=4	dummy=1 for >17 years of formal education	1,561	0.25	0.43	0	1
JOB=1	dummy=1 for managers or professionals	1,546	0.37	0.48	0	1
JOB=2	dummy=1 for blue collar workers	1,546	0.26	0.44	0	1
JOB=3	dummy= 1 for students	1,546	0.10	0.30	0	1
JOB=4	dummy= 1 for housewives	1,546	0.05	0.21	0	1
JOB=5	dummy= 1 for unemployed	1,546	0.06	0.24	0	1
JOB=6	dummy= 1 for retired	1,546	0.16	0.37	0	1
CURRENTHEALTH=1	1= Very bad self reported health	1,574	0.01	0.10	0	1
CURRENTHEALTH=2	2=Bad self reported health	1,574	0.09	0.28	0	1
CURRENTHEALTH=3	3=On average self reported health	1,574	0.37	0.48	0	1
CURRENTHEALTH=4	4=Good self reported health	1,574	0.36	0.48	0	1
CURRENTHEALTH=5	5= Very good self reported health	1,574	0.16	0.37	0	1
BORNLIVING =different	dummy=1 for those who are born in a different country from the one where the interview is conducted	1,562	0.06	0.23	0	1
GDPCAP_15	Regional (NUTS2) GDP per capita (measured in 2015)	1,497	26422.31	10519.03	15400	55100
TERTEDATT_15	Regional (NUTS2) tertiary educational attainment in the age group 25-65 (measured in 2015)	1,766	42.95	26.17	8.9	82.7
UNEMP_15	Regional (NUTS2) Unemployment rate (measured in 2015)	1,766	12.95	8.37	3.9	30.7

Variables used as dependent variables are reported in bold, contextual variables are highlighted in grey

II) Cultural indicators and UK referendum on EU

Sample

The cultural analysis of the results of the Brexit referendum was carried out on the 12 UK NUTS1 territorial sites included in the Sample L1 (cf. § 4)

Indicators

As to Path II of analysis, the following indicators were calculated, as secondary elaboration from the output of the map of symbolic universes and semiotic fields

1. Incidence of the polarity *friend* (Line of semiotic force – AFFECTIVE CONNOTATION OF THE WORLD)
2. Incidence of the polarity *foe* (Line of semiotic force – AFFECTIVE CONNOTATION OF THE WORLD)
3. Incidence of the polarity *passivity* (Line of semiotic force – DIRECTION OF DESIRE)
4. Incidence of the polarity *engagement* (Line of semiotic force – DIRECTION OF DESIRE)
5. Incidence of the polarity *demand for systemic resources* (Line of semiotic force– FORM OF DEMAND)
6. Incidence of the polarity *demand community bond resources* (Line of semiotic force – FORM OF DEMAND)
7. Incidence of the symbolic universe *ordered universe* within the sites' sample
8. Incidence of the symbolic universe *interpersonal bond* within the sites' sample
9. Incidence of the symbolic universe *niche of belongingness* within the sites' sample
10. Incidence of the symbolic universe *caring society* within the sites' sample
11. Incidence of the symbolic universe *others' world* within the sites' sample
12. Heterogeneity of symbolic universes

Indicators 1-3 were calculated as the mean of the scores of the territorial site's segment of the sample on the corresponding line of semiotic force. Indicators 7-9 were calculated as the relative frequency of the territorial site's sample associated with the polarity at stake (to this end the highest and lowest of whole sample's quartile was used as threshold, respectively for positive and negative polarity) Indicators 10-14 were calculated as the percentage of the segment of the territorial site's sample associated with the corresponding symbolic universe. Indicators 15-17 were calculated as the standard deviation of the scores of the territorial site's sample on the factorial dimension detecting the corresponding line of semiotic force.

Indicator 18 was calculated as the difference between the empirical frequency of symbolic universes in the territorial site and the condition of their equal distribution (the difference was calculated in accordance to the chi-square metric – namely as square root of the sum of the square difference).

Data analysis

The analysis was carried out by means of a Discriminant Analysis (stepwise method). The Discriminant Analysis is a procedure aimed at identifying the more parsimonious set of variables (predictors) whose combination is able to account for the differences among groups of cases, grouped previously by a classificatory variable. Discriminant Analysis provides three main results: a) the classificatory function, namely the model that maps the differences among groups of cases in terms of the criterion variables; b) the estimation of the discriminative capacity of the function (Wilks' Lambda is the parameter used for this purpose) as well as its statistical significance (based chi square metric); c) the estimation of the efficacy of the model, in terms of the comparisons between the original classification of cases and that performed by the discriminant function.

In order to carry out the Discriminant Analysisthe 12 NUTS1 territorial sites of the UK were grouped into two classes, in accordance with the percentage of "Leave" votes expressed at the Brexit referendum in that territorial site out the corresponding electorate. The median was used as cut-off. Then, the discriminative function was assessed, with the second-order cultural indicators used as predictive variables.

5.2.c. Results

Results of paths of analysis are reported separately.

I) Estimation of the level of association among cultural milieu and socio-economic conditions

OLS regression analyses

The table 5.3 shows the results obtained when only the micro-level covariates are taken into account

Table 5.3. OLS regression analysis. Only individual-level covariates are considered. Standard error clustered at regional level

	(1)	(2)	(3)
VARIABLES	LSF1	LSF2	LSF3
AGE	0.002	-0.000	-0.000
	(0.001)	(0.002)	(0.003)
SEX=F	-0.050***	0.033	0.029
	(0.017)	(0.054)	(0.044)
STATUS=married	0.043	-0.097	0.082
	(0.027)	(0.067)	(0.071)
STATUS=separated	-0.030	-0.165*	0.167
	(0.040)	(0.092)	(0.105)
STATUS=widowed	-0.058	-0.191	0.152
	(0.065)	(0.139)	(0.121)
EDUCATION=2	0.046	-0.098	0.074
	(0.079)	(0.138)	(0.147)
EDUCATION=3	-0.152**	0.047	-0.037
	(0.065)	(0.161)	(0.134)
EDUCATION=4	-0.177**	0.152	0.118
	(0.065)	(0.177)	(0.149)
EDUCATION=5	-0.214***	0.129	0.480***
	(0.069)	(0.167)	(0.170)
JOB=2	0.042*	-0.103	-0.238***
	(0.021)	(0.072)	(0.073)
JOB=3	0.016	-0.066	0.178
	(0.031)	(0.116)	(0.149)
JOB=4	0.069	0.069	-0.077
	(0.051)	(0.127)	(0.162)
JOB=5	0.130**	-0.041	-0.200
	(0.058)	(0.128)	(0.124)
JOB=6	0.019	0.102	-0.321**
	(0.032)	(0.123)	(0.119)
CURRENTHEALTH=2	-0.108	0.078	-0.393*
	(0.079)	(0.268)	(0.223)
CURRENTHEALTH=3	-0.247**	0.074	-0.537**
	(0.094)	(0.243)	(0.200)
CURRENTHEALTH=4	-0.305***	0.282	-0.558**
	(0.092)	(0.245)	(0.207)
CURRENTHEALTH=5	-0.210**	0.620**	-0.397**
	(0.098)	(0.230)	(0.193)
BORNLIVING =different	0.003	0.013	-0.234*
	(0.044)	(0.133)	(0.125)
Constant	0.454*	-2.036***	2.042***

	(0.237)	(0.440)	(0.440)
Observations	1,494	1,494	1,494
R-squared	0.126	0.041	0.079

* p<0.1; ** p<0.05; *** p<0.001.

The table 5.4 shows the results obtained when region-level covariates are added to the model. The sample size changes according to data availability. Therefore a direct comparison of these results with those reported by the previous table is not possible.

Table 5.4. OLS regression analysis. Individual-level and regional-level covariates are considered. Standard error clustered at regional level

	Dependent variable		
Covariates	LSF1	LSF2	LSF3
AGE	0.001	0.000	0.002
	(0.001)	(0.002)	(0.003)
SEX=F	-0.049**	0.042	0.012
	(0.020)	(0.060)	(0.047)
STATUS=married	0.034	-0.069	0.064
	(0.027)	(0.080)	(0.090)
STATUS=separated	-0.077**	-0.100	0.126
	(0.034)	(0.097)	(0.115)
STATUS=widowed	-0.070	-0.202	0.222
	(0.075)	(0.174)	(0.130)
EDUCATION=2	0.141**	-0.060	0.081
	(0.068)	(0.216)	(0.202)
EDUCATION=3	-0.028	-0.075	0.073
	(0.056)	(0.233)	(0.183)
EDUCATION=4	-0.065	0.080	0.192
	(0.066)	(0.264)	(0.187)
EDUCATION=5	-0.091	0.040	0.592**
	(0.058)	(0.239)	(0.225)
JOB=2	0.047**	-0.146**	-0.240***
	(0.021)	(0.069)	(0.085)
JOB=3	-0.035	-0.038	0.130
	(0.036)	(0.130)	(0.142)
JOB=4	0.044	0.027	-0.037
	(0.045)	(0.141)	(0.180)
JOB=5	0.104	-0.104	-0.225
	(0.062)	(0.140)	(0.160)
JOB=6	0.007	0.064	-0.313**
	(0.036)	(0.132)	(0.114)
CURRENTHEALTH=2	-0.191**	-0.135	-0.403
	(0.086)	(0.268)	(0.255)
CURRENTHEALTH=3	-0.355***	-0.101	-0.630***
	(0.097)	(0.261)	(0.225)
CURRENTHEALTH=4	-0.411***	0.139	-0.632**
	(0.099)	(0.281)	(0.234)
CURRENTHEALTH=5	-0.336***	0.562*	-0.508**
	(0.106)	(0.274)	(0.227)
BORNLIVING =different	0.040	-0.038	-0.162
	(0.038)	(0.161)	(0.126)
GDPCAP_15	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
TERTEDATT_15	0.001*	0.000	0.002
	(0.001)	(0.001)	(0.003)
UNEMP_15	0.009***	-0.017**	0.023**
	(0.002)	(0.008)	(0.010)
Constant	0.488*	1.699***	1.513***
	(0.251)	(0.505)	(0.529)

Observations	1,249	1,249	1,249
R-squared	0.176	0.055	0.102

* p<0.1; ** p<0.05; *** p<0.001

Multilevel modeling

LSF1 as dependent variable

The table 5.5 illustrates results obtained through the null model. In order to facilitate comparability of the subsequent ones, the sample is restricted to those observations that do not show missing values for any of the individual-level and region-level variables we are interested in.

Table 5.5. Multilevel modelling (LSF1 as dependent variable).
Null model

```
Mixed-effects ML regression                     Number of obs     =      1,249
Group variable: Idregio                         Number of groups  =         27

                                                Obs per group:
                                                              min =         19
                                                              avg =       46.3
                                                              max =        136

                                                Wald chi2(0)      =          .
Log likelihood = -408.15926                     Prob > chi2       =          .
```

L1_F1	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
_cons	.0062915	.0194248	0.32	0.746	-.0317803	.0443634

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.085441	.0156377	.0596865	.1223084
sd(Residual)	.330737	.0066848	.3178912	.3441018

LR test vs. linear model: chibar2(01) = 60.55 Prob >= chibar2 = 0.0000

In the third section of the output, the estimates of the LSF1 variance components (individual-level and region-level) is reported. The likelihood (LR) ratio test statistic reported at the end of the output suggests that there is a statistically significant cross-regional variation in LSF1 and therefore multilevel models are adequate to inspect it.

On the basis of the variance components data, we can compute the intra-class correlation (ICC) coefficient that tells us how much part of the variance of the dependent variable is observed at region-level. The value obtained for ICC is approximately 6%.

The following table (Table 5.6) shows the results obtained when individual-level covariates are added to the model. As one can see, the addition does not affect the ICC value, which is still approximately 6%.

Table 5.6. Multilevel regression analysis results (LSF1 as dependent variable). Only individual-level covariates are included in the model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(19) = 179.77
Log likelihood = -324.18494 — Prob > chi2 = 0.0000

L1_F1	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
AGE	-.0006024	.0007738	-0.78	0.436	-.002119	.0009142
SEX						
F	.0475442	.0184508	2.58	0.010	.0113814	.083707
STATUS_married_F	-.0315556	.0228596	-1.38	0.167	-.0763596	.0132485
STATUS_separated_F	.0848613	.0321191	2.64	0.008	.021909	.1478136
STATUS_widowed_F	.083903	.0456537	1.84	0.066	-.0055767	.1733826
EDUCATION						
6-9 y	-.1332234	.0629393	-2.12	0.034	-.2565822	-.0098646
10-13 y	.0302328	.0590894	0.51	0.609	-.0855802	.1460458
14-17 y	.0603975	.0587178	1.03	0.304	-.0546874	.1754824
> 17 y	.093088	.0594954	1.56	0.118	-.0235209	.209697
JOB						
2	-.0427477	.0236217	-1.81	0.070	-.0890453	.00355
3	.0457353	.039563	1.16	0.248	-.0318067	.1232772
4	-.025511	.046268	-0.55	0.581	-.1161946	.0651726
5	-.0968034	.0415871	-2.33	0.020	-.1783127	-.0152941
6	-.0054985	.033191	-0.17	0.868	-.0705517	.0595547
CURRENTHEALTH						
Bad	.1936796	.0887829	2.18	0.029	.0196684	.3676908
On average	.3525207	.0852496	4.14	0.000	.1854345	.5196068
Good	.4082326	.0854007	4.78	0.000	.2408503	.5756149
Very good	.3279513	.0871799	3.76	0.000	.1570819	.4988208
BORNLIVING						
Different country	-.0115416	.0396361	-0.29	0.771	-.089227	.0661438
_cons	-.643123	.1827681	-3.52	0.000	-1.001342	-.2849041

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.081028	.015157	.0561579	.1169122
sd(Residual)	.3091621	.0062526	.297147	.3216631

LR test vs. linear model: chibar2(01) = 50.39 — Prob >= chibar2 = 0.0000

Note: For computational reasons, coefficients (Coeff.) are inverted.

Finally, the table 5.7 shows the results obtained when the three region-level covariates are added to the model. As expected, the ICC value is definitely lower now, being approximately 2%.

Table 5.7. Multilevel regression analysis results (LSF1 as dependent variable). Individual-level and regional-level covariates are included in the model.

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(22) = 217.14
Log likelihood = -313.07057 — Prob > chi2 = 0.0000

L1_F1	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
AGE	-.0006044	.0007714	-0.78	0.433	-.0021164	.0009076
SEX						
F	.0483314	.0184181	2.62	0.009	.0122325	.0844303
STATUS_married_F	-.0306108	.0227393	-1.35	0.178	-.075179	.0139574
STATUS_separated_F	.0836098	.0319695	2.62	0.009	.0209508	.1462688
STATUS_widowed_F	.0790672	.0454024	1.74	0.082	-.00992	.1680543
EDUCATION						
6-9 y	-.1322802	.062704	-2.11	0.035	-.2551779	-.0093826
10-13 y	.0259792	.0588319	0.44	0.659	-.0893291	.1412875
14-17 y	.0599444	.058454	1.03	0.305	-.0546234	.1745122
> 17 y	.0911872	.0592229	1.54	0.124	-.0248876	.2072619
JOB						
2	-.0462723	.0236065	-1.96	0.050	-.0925401	-4.43e-06
3	.0460755	.0393871	1.17	0.242	-.0311217	.1232727
4	-.0325241	.0461391	-0.70	0.481	-.1229551	.0579069
5	-.1003786	.0414613	-2.42	0.015	-.1816414	-.0191159
6	-.0060645	.0330767	-0.18	0.855	-.0708936	.0587647
CURRENTHEALTH						
Bad	.1923174	.0885567	2.17	0.030	.0187495	.3658853
On average	.3558398	.0850106	4.19	0.000	.1892221	.5224575
Good	.4132089	.085224	4.85	0.000	.2461729	.5802449
Very good	.339285	.087053	3.90	0.000	.1686644	.5099057
BORNLIVING						
Different country	-.0277043	.0392296	-0.71	0.480	-.1045929	.0491843
GDPCAP_15	9.22e-07	1.47e-06	0.63	0.532	-1.97e-06	3.81e-06
TERTEDATT_15	-.0006305	.0005353	-1.18	0.239	-.0016797	.0004186
UNEMP_15	-.0091688	.002105	-4.36	0.000	-.0132945	-.0050431
_cons	-.5368019	.1893664	-2.83	0.005	-.9079532	-.1656507

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.0435048	.0120138	.0253208	.0747474
sd(Residual)	.308846	.0062339	.2968664	.321309

LR test vs. linear model: chibar2(01) = 9.08 — Prob >= chibar2 = 0.0013

Note: For computational reasons, coefficients (Coeff.) are inverted.

LSF2 as the dependent variable

The null model is reported in the table 5.8. The ICC value prove to be very low: approximately 2.5%.

Table 5.8. Multilevel regression analysis results (LSF2 as dependent variable). Null model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(0) = .
Log likelihood = -1912.399 — Prob > chi2 = .

L1_F2_B	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
_cons	2.538475	.0487087	52.12	0.000	2.443008	2.633942

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.1811913	.0464754	.1095985	.2995504
sd(Residual)	1.109655	.0224284	1.066556	1.154497

LR test vs. linear model: chibar2(01) = 11.94 — Prob >= chibar2 = 0.0003

Table 5.9 reports the model once the individual level variables are added. Regional level variables are added to the model in the table 5.10 – ICC is now 2%.

Table 5.9. Multilevel regression analysis results (LSF2 as dependent variable). Only individual-level covariates are included in the model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(19) = 61.69
Log likelihood = -1882.405 — Prob > chi2 = 0.0000

L1_F2_B	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
AGE	.0001288	.0027025	0.05	0.962	-.005168	.0054255
SEX						
F	-.0355642	.0645201	-0.55	0.581	-.1620212	.0908927
STATUS_married_F	.0484079	.0797273	0.61	0.544	-.1078548	.2046705
STATUS_separated_F	.0739861	.1120503	0.66	0.509	-.1456285	.2936008
STATUS_widowed_F	.1197921	.1593246	0.75	0.452	-.1924784	.4320626
EDUCATION						
6-9 y	.1188401	.2196672	0.54	0.589	-.3116997	.5493799
10-13 y	.1301011	.2061542	0.63	0.528	-.2739536	.5341559
14-17 y	-.01897	.2048718	-0.09	0.926	-.4205113	.3825714
> 17 y	-.0227547	.2076928	-0.11	0.913	-.4298251	.3843158
JOB						
2	.1359516	.0823663	1.65	0.099	-.0254834	.2973867
3	.0331373	.1378349	0.24	0.810	-.2370141	.3032887
4	-.0747348	.1614384	-0.46	0.643	-.3911482	.2416787
5	.0835209	.1451862	0.58	0.565	-.2010389	.3680807
6	-.0952463	.1158287	-0.82	0.411	-.3222664	.1317739
CURRENTHEALTH						
Bad	.1570057	.3102948	0.51	0.613	-.4511609	.7651724
On average	.129953	.2978382	0.44	0.663	-.4537991	.7137051
Good	-.0986242	.2984193	-0.33	0.741	-.6835152	.4862668
Very good	-.49211	.3045183	-1.62	0.106	-1.088955	.1047348
BORNLIVING						
Different country	-.023774	.1371457	-0.17	0.862	-.2925746	.2450266
_cons	2.090976	.6365476	3.28	0.001	.8433656	3.338586

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.1988961	.0491592	.1225302	.3228564
sd(Residual)	1.081824	.0218976	1.039746	1.125606

LR test vs. linear model: chibar2(01) = 13.01 — Prob >= chibar2 = 0.0002

Note: For computational reasons, coefficients (Coeff.) are inverted.

Table 5.10. Multilevel regression analysis results (LSF2 as dependent variable). Individual-level and regional-level covariates are included in the model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(22) = 68.28
Log likelihood = -1879.2113 — Prob > chi2 = 0.0000

L1_F2_B	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
AGE	.0001082	.0027023	0.04	0.968	-.0051882	.0054046
SEX						
F	-.0374374	.0645044	-0.58	0.562	-.1638636	.0889889
STATUS_married_F	.0490672	.0796719	0.62	0.538	-.1070869	.2052213
STATUS_separated_F	.0761988	.1120064	0.68	0.496	-.1433298	.2957274
STATUS_widowed_F	.1355541	.159075	0.85	0.394	-.1762271	.4473353
EDUCATION						
6-9 y	.1036704	.219665	0.47	0.637	-.3268651	.5342059
10-13 y	.1353297	.2061132	0.66	0.511	-.2686447	.5393041
14-17 y	-.0186603	.2047897	-0.09	0.927	-.4200408	.3827201
> 17 y	-.0183091	.2074728	-0.09	0.930	-.4249482	.3883301
JOB						
2	.1477743	.0826949	1.79	0.074	-.0143048	.3098534
3	.0299764	.13801	0.22	0.828	-.2405182	.300471
4	-.0615477	.1616362	-0.38	0.703	-.3783488	.2552533
5	.0949369	.1452408	0.65	0.513	-.1897298	.3796036
6	-.0901237	.1158791	-0.78	0.437	-.3172424	.1369951
CURRENTHEALTH						
Bad	.1533361	.3101747	0.49	0.621	-.4545951	.7612673
On average	.1170001	.2977698	0.39	0.694	-.4666179	.7006182
Good	-.117968	.2984985	-0.40	0.693	-.7030143	.4670783
Very good	-.5319756	.3049069	-1.74	0.081	-1.129582	.065631
BORNLIVING						
Different country	.004637	.1375911	0.03	0.973	-.2650366	.2743106
GDPCAP_15	2.86e-07	5.31e-06	0.05	0.957	-.0000101	.0000107
TERTEDATT_15	-.0004569	.0019311	-0.24	0.813	-.0042417	.003328
UNEMP_15	.0171225	.0075892	2.26	0.024	.002248	.0319971
_cons	1.892244	.6653564	2.84	0.004	.5881689	3.196318

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.1622888	.047447	.0915019	.2878372
sd(Residual)	1.081531	.0218828	1.039481	1.125282

LR test vs. linear model: chibar2(01) = 7.18 — Prob >= chibar2 = 0.0037

Note: For computational reasons, coefficients (Coeff.) are inverted.

LSF3 as the dependent variable

The null model is reported in the table 5.11. The ICC is definitely high, approximately 17%. This means that contextual variables should be important in explaining LSF3 heterogeneity among individuals.

Table 5.11. Multilevel regression analysis results (LSF3 as dependent variable). Null model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(0) = .
Log likelihood = -1811.4747 — Prob > chi2 = .

L1_F3_B	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
_cons	2.313277	.0942387	24.55	0.000	2.128572	2.497981

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.4607043	.0706954	.3410396	.6223573
sd(Residual)	1.007138	.0203713	.9679916	1.047867

LR test vs. linear model: chibar2(01) = 165.49 — Prob >= chibar2 = 0.0000

Table 5.12 shows the model once individual level was added.

Table 5.12. Multilevel regression analysis results (LSF3 as the dependent variable). Only individual-level covariates are included in the model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(19) = 68.83
Log likelihood = -1778.1028 — Prob > chi2 = 0.0000

L1_F3_B	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
AGE	-.0005447	.0024622	-0.22	0.825	-.0053705	.0042812
SEX						
F	.024804	.0586432	0.42	0.672	-.0901346	.1397426
STATUS_married_F	.0504358	.0728316	0.69	0.489	-.0923115	.1931832
STATUS_separated_F	.0941643	.1023177	0.92	0.357	-.1063747	.2947034
STATUS_widowed_F	.0694951	.1453653	0.48	0.633	-.2154157	.3544058
EDUCATION						
6-9 y	.2042249	.2004243	1.02	0.308	-.1885995	.5970494
10-13 y	.1943994	.188288	1.03	0.302	-.1746384	.5634372
14-17 y	.3199259	.1870943	1.71	0.087	-.0467722	.6866239
> 17 y	.4913481	.1894386	2.59	0.009	.1200553	.8626409
JOB						
2	-.1874431	.0752949	-2.49	0.013	-.3350183	-.0398679
3	.1003022	.1261288	0.80	0.426	-.1469056	.34751
4	.0326527	.1473672	0.22	0.825	-.2561817	.3214872
5	-.1606424	.1323954	-1.21	0.225	-.4201327	.0988479
6	-.2731068	.1057038	-2.58	0.010	-.4802825	-.065931
CURRENTHEALTH						
Bad	-.4846193	.2823451	-1.72	0.086	-1.038006	.068767
On average	-.7356902	.27121	-2.71	0.007	-1.267252	-.2041283
Good	-.728268	.2716479	-2.68	0.007	-1.260688	-.1958479
Very good	-.540645	.2774195	-1.95	0.051	-1.084377	.0030873
BORNLIVING						
Different country	-.0804736	.1271921	-0.63	0.527	-.3297655	.1688183
_cons	2.400156	.585396	4.10	0.000	1.252801	3.547511

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.4158452	.0660136	.3046542	.567618
sd(Residual)	.9820205	.01987	.9438381	1.021747

LR test vs. linear model: chibar2(01) = 125.27 — Prob >= chibar2 = 0.0000

Finally, region-level variables are added to the model in the table 5.13

Table 5.13. Multilevel regression analysis results (LSF3 is the dependent variable). Individual-level and regional-level covariates are included in the model

Mixed-effects ML regression — Number of obs = 1,249
Group variable: Idregio — Number of groups = 27

Obs per group:
min = 19
avg = 46.3
max = 136

Wald chi2(22) = 76.78
Log likelihood = -1775.0649 — Prob > chi2 = 0.0000

L1_F3_B	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
AGE	-.0005265	.0024618	-0.21	0.831	-.0053516	.0042986
SEX						
F	.0238497	.0586298	0.41	0.684	-.0910627	.138762
STATUS_married_F	.0487621	.0728003	0.67	0.503	-.0939239	.1914481
STATUS_separated_F	.0920667	.1022883	0.90	0.368	-.1084147	.292548
STATUS_widowed_F	.0741044	.1452758	0.51	0.610	-.210631	.3588398
EDUCATION						
6-9 y	.1971822	.2003923	0.98	0.325	-.1955796	.589944
10-13 y	.1995811	.1882658	1.06	0.289	-.1694131	.5685753
14-17 y	.3224	.1870609	1.72	0.085	-.0442325	.6890326
> 17 y	.4978078	.1893456	2.63	0.009	.1266973	.8689183
JOB						
2	-.182	.0753869	-2.41	0.016	-.3297556	-.0342445
3	.097612	.126134	0.77	0.439	-.149606	.34483
4	.0381458	.1474134	0.26	0.796	-.2507793	.3270708
5	-.1552722	.1323974	-1.17	0.241	-.4147663	.1042219
6	-.2712998	.1057167	-2.57	0.010	-.4785006	-.0640989
CURRENTHEALTH						
Bad	-.4871647	.2822758	-1.73	0.084	-1.040415	.0660856
On average	-.7432792	.2711629	-2.74	0.006	-1.274749	-.2118098
Good	-.7391104	.2716364	-2.72	0.007	-1.271508	-.2067129
Very good	-.5628303	.2775002	-2.03	0.043	-1.106721	-.01894
BORNLIVING						
Different country	-.0683163	.1272807	-0.54	0.591	-.3177819	.1811493
GDPCAP_15	-7.95e-06	8.93e-06	-0.89	0.373	-.0000255	9.55e-06
TERTEDATT_15	.0008097	.0032571	0.25	0.804	-.0055741	.0071935
UNEMP_15	.0188785	.0127791	1.48	0.140	-.0061681	.0439251
_cons	2.399931	.6753905	3.55	0.000	1.07619	3.723672

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
Idregio: Identity				
sd(_cons)	.3693459	.0593782	.2695188	.5061479
sd(Residual)	.9817793	.0198558	.9436238	1.021478

LR test vs. linear model: chibar2(01) = 103.88 — Prob >= chibar2 = 0.0000

Overview

The combined inspection of results provided by the OLS and the multilevel regression analyses presented above leads to three main findings.

First, cross-regional heterogeneity is remarkable for two out of three lines of semiotic forces considered, namely "*friend* vs *foe*" and, above all, "*demand for systemic resources* vs *demand for community bond*", which is something suggested by the ICC values calculated when running the multilevel analysis. This suggests that contextual variables are relevant in explaining these cultural dimensions while they are less important in driving the other line of semiotic force – i.e. "*passivity* vs *engagement*". The coefficients calculated through the regression analyses show that

unemployment is the most important regional-level socio economic factor associated with the lines of semiotic forces among those inspected by our study. More specifically, findings show how a higher unemployment rate (UNEMP_15) is positively associated with the negative, anomic connotation of the world – i.e. *foe*. This finding is worth being complemented by the observation of the fact that global socio-economic indexes – 2015 Regional GPD pro capita (GPDCAP_15) and 2015 Tertiary educational attainment in the age group 25-65 (TERTEDAT_15) show no association with cultural dimensions.

Second, only few of the socio-economic individual-level covariates considered are *ceteris paribus* correlated with respondents' lines of semiotic forces. More particularly, it is interesting to note that the individual condition of unemploiment (JOB=5) exhibits a positive correlation with the negative, anomic connotation of the world – i.e. *foe*.

Third, indexes used to measure individuals' lines of semiotic force exhibit statistically significant correlations with individuals' self-reported health. Consistently with a large literature, better health is positively correlated with the positive connotation of the world – i.e. *friend*. On the other hand, the lower the perceived health condition, the more the association with the ancorhage to the community - i.e. *demand for systemic resources*.

Taken as a whole these results provide empirical support to the idea that the incidence of cultural dimensions mapped by the lines of semiotic force varies over territories and that this variation is associated in part with the socio-economic conditions of territories. Needless to say, this is not enough to claim a causal linkage between cultural and socio-economic variables. On the other hand, some aspects of findings suggest that cultural dimensions, and in particular the most fundamental first line of semiotic force – *friend* vs *foe* – is triggered by the more or less critical social-economic condition of life people have to deal with. Indeed, as discussed above, the socio-economic aspects that proves to be associated with cultural dimension concern one's perceived health and unemployment (both the personal status of unemploiment and the incidence of such condition within the territory), whereas the more abstract and global socio-economic indexes (GPD and incidence of high educated people) showed to play no role. And this is consistent with the idea that sensemaking is fostered and channelled by the concrete conditions of life (i.e. unemployment and health conditions) people deal with. Accordingly, the global socio-economic performances of territories may play a role in shaping cultural dimensions; yet, this role is not a matter of direct, mechanic impact, rather global systemic characteristics, if they do, they play a role in terms of shaping and constraining concrete conditions of individual and micro-social domain of life.
From a complementary standpoint, one can note that the fact that the anomic form of sensemaking (i.e. the polarity *foe* of the first line of semiotic force) is associated with the territorial incidence of unemployment but not with GPD as well as incidence of high educated people leads to interpret the former association as a marker of how the experience of (broadly speaking) territory's socio-economic condition affects the cultural dimension, rather than the opposite. Indded, if the latter were the case, namely that the cultural dimension affects the territory socio-economic condition, it would have been more obvious to find that the former would have proved to be associated with both experiencial (unemployment) and systemic (GPD, incidence of educated people) socio-economic indexes.
Needless, this is not to say that the cultural dimension does not matter. Indeed, a circular relation between cultural and socio-economic factors is the more appropriate way of seeing their relation (Granovetter, 2017). On the other hand, one can expect that the culture plays its role shaping and channeling the way of thinking and behaving and only through such mediation it affects the global socio-economic territorial performance. Thus, the analysis discussed above has highlighted only half of the story - a relevant part of it, given that it leads to recognize how policies designed to change socio-economic conditions that have an immediate impact on people's life can contribute

to change the cultural milieu; how in its turn the latter can play a causal role will be analysed within the framework of the following study, focused on the relation between cultural dimensions and English people choices at the recent Brexit referendum.

Cultural indicators and UK referendum on EU

The 12 UK NUTS1 regional areas were distinguished in two classes, due to the incidence of the Leave votes cast in that area, more precisely the proportion of Leave votes out of the whole electoral population (i.e. encompassing both non valid votes and people not voting) (data were retrieved from the UK electoral commission; www.electoralcommission.org.uk).The median was used as cut-off, thus distinguishing the regional areas with more than 39% and with less than 40% of Leave votes out of the whole electorate (cf. Table 5.14).

Table 5.14. NUT1 UK classification in accordance to Brexit referendum results

NUT1 Region	*Electorate*	*Turnout (%)*	*Valid_ Votes*	*Rejected*	*Remain*	*Leave*	*Leave/ Electorate*	*LEAVE vs. ELECT**
East England	4.398.796	75.7	3.328.983	2.329	1.448.616	1.880.367	42.75	2
East Midlands	3.384.299	74.2	2.508.515	1.981	1.033.036	1.475.479	43.60	2
London	5.424.768	69.7	3.776.751	4.453	2.263.519	1.513.232	27.89	1
North East	1.934.341	69.3	1.340.698	689	562.595	778.103	40.23	2
North West	5.241.568	70	3.665.945	2.682	1.699.020	1.966.925	37.53	1
Northern Ireland	1.260.955	62.7	790.149	374	440.707	349.442	27.71	1
Scotland	3.987.112	67.2	2.679.513	1.666	1.661.191	1.018.322	25.54	1
South East	6.465.404	76.8	4.959.683	3.427	2.391.718	2.567.965	39.72	1
South West	4.138.134	76.7	3.172.730	2.179	1.503.019	1.669.711	40.35	2
Wales	2.270.272	71.7	1.626.919	1.135	772.347	854.572	37.64	1
West Midlands	4.116.572	72	2.962.862	2.507	1.207.175	1.755.687	42.65	2
Yorkshire and The Humber	3.877.780	70.7	2.739.235	1.937	1.158.298	1.580.937	40.77	2

*1=Leave < 40; 2=Leave > 39%

The Discriminant Analyses (stepwise method) produced a significant function having 100% classification success rate classifying. (Wilks' Lambda 0.006, Canonical correlation: 0.997; Chi Square 25.707[df=10], p< 0.004).

Table 5.15. Discriminant analysis. Standardized coefficient of the discriminant function.

Second-order cultural indicators	*Function*
Incidence symbolic universe: *ordered universe*	21,807
Incidence of symbolic universe: *interpersonal bond*	30,292
Incidence of symbolic universe: *caring society*	9,42
Incidence of symbolic universe: *niche of belongingness*	22,224
Heterogeneity symbolic universes	-12,542
Affective connotation of the world: *Friend*	-4,124

Affective connotation of the world: *Foe*	-10,229
Direction of desire: *Passivity*	2,641
Direction of desire: *Engagement*	-12,892
Demand for *Systemic resources*	3,814

Table 5.15 reports the second-ordered cultural indicator included in the Standardized Canonical Discriminant Functions. On the basis of the group centroids (Table 5.16) one can see how the regional sites with a proportion of Leave equal to or higher than 40% are discriminated by the combination that is characterized mainly by high incidence of the following three symbolic universes: *interpersonal bond*, *niche of belongingness* and *ordered universe* and low level of cultural heterogeneity, incidence of people with attitudes of engagement and connoting the world in terms of foe.

Table 5.16. Discriminant analysis. Group centroids

Groups	*Function*
leave < 40	-11.901
Leave >39	11.901

Taken as a whole, these findings are consistent with the view of the Brexit vote in terms of identity enactment (Curtice, 2016; Geoghegan, 2016; Kenny, 2016), rather than as reaction to anomy. This interpretation is suggested, in particular, by the role played by the incidence of *interpersonal bond* and *niche of belongingness* – i.e. the two symbolic universes characterized by the relevance of the identity network – in territorial areas with high percentage of Leave votes as well as by the fact that the anomic symbolic universe does not play any discriminant role.

5.2.d. Conclusive remarks

The results presented in the Part II of this report concern the aim of analysing the relationship between the cultural milieu - as modelled in the first stage of the study (cf. § 4) - and the characteristics of the territorial sites over European countries. This analysis is strategic in the context of the WP3 and more in general for the desired impact of the whole project. Indeed, the analysis of the linkage between cultural milieu and the socio-economic charactertistics of European territories is a key step for two complementary objectives. On the one hand, it allows to test the validity and to deepen the comprehension of symbolic universes and lines of semiotic force elaborated in the previous stage of the investigation. On the other hand, the analysis of the association between the cultural milieu and socio-economic characteristics of the European territories provides a way to highlight the impact of the cultural dimension on social life. And this is at the core of the Re.Cri.Re. project, which is aimed at building a theory driven and empirically based model of the cultural milieu fostering the understanding of socio-economical phenomena and the way of designing how to intervene with them. This requires cultural characteristics to be comprehensible in their qualities and in the deep mechanisms underpinning them, but also measurable and assessable in their impact on social phenomena.

According to this perspective, analyses developed in the framework of this area of investigation led to two main findings that are worth highlighting.

First a relation was found between some cultural characteristics– and in particular the distribution of the lines of semiotic force underpinning the cultural milieu – and some socio-economic factors. More particularly, the relation concerns the impact of the experienced socio-economic condition of life (as signalled by the personal status of unemployment and more in general its rate within the territory) and the dimension of sensemaking consisting in the basic negative, anomic interpretation of the world.

Second, the second-order cultural indicators defined for the sake of detecting the cultural characteristics of territories proved to be reliable, valid measures of the cultural milieu. The most

evident element supporting the theoretical and empirical quality of those indicators is provided by the capacity they show to discriminate the results of the Brexit referendum (both Leave *vs.* Remain and the proportion of Leave across the population) over the 12 UK regional areas at the NUTS1 level. The value of these results does not need to be underlined. They provide clear empirical support to the reliability and validity of the cultural indicators. This result holds despite the fact that the indicators were defined at European level and implemented at the regional level, namely at a scale of analysis where one might have expected them to lack specificity (given the assumed situativeness of the cultural milieu). Interestingly enough the indicators identified at country level have led to results that are fully equivalent to the ones produced with the indicators based on the analysis at the European level (cf. footnote 75). This suggests that Re.Cri.Re. cultural indicators based on a large sample dataset can be used reliably for more specific, country or regional analyses; in the same vein, the findings show that the impact of the cultural milieu, even if situated, can be studied by adopting a large enough territory (regional level) as unit of analysis – rather than more specific, and therefore more resource-intensive units.

On the other hand, it has to be recognized that the area of investigaton reported in this Part of the Deliverable requires further development. As we have already observed, the study of the relation between cultural and socio-economic dimensions implies the methodological challenge of combining two different levels of analysis – the individual level of the survey used for mapping the cultural milieu and the population/territorial level concerning the social dimension. The theoretical and methodological framework Re.Cri.Re. is based on making such a challenge addressable. Yet, it raises operational issues that require a further extension of the analysis in order to be fully addressed. Indeed, the linkage between the two levels of analysis was performed in terms of the elaboration of second-order cultural indicators, focused on the territorial site's population. As we have explained (cf. § 3.3), this operation is consistent with the view of the cultural milieu adopted by Re.Cri.Re. On the other hand, large amounts of data are needed in order to build reliable and valid indicators as well as to provide adequate statistical power to analyses. The analyses performed show that at the current stage of the investigation this objective has only been partially accomplished. Three further steps need to be taken.
First, analyses have to be performed on bigger and more complete datasets. Moreover, a required refinement of the analysis will concern the specification of the model in terms of the key contextual parameters (i.e. size of the population); indeed, one should not assume that the models work in the same way in all human latitudes.
Second, the issue of the direction of the linkage also has to be addressed at the empirical level. In actual fact, the weak approach we adopted does not make this an absolute requirement, given that our findings can be interpreted both in terms of correlates and in terms of circular causality. Take for instance the relation between the disadvantaged socio-economic scenario and the negative connotation of experience (i.e. in terms of fatalism, anomy, distrust, as detected by the polarity *foe* of the first line of semiotic force): it is hard, maybe devoid of meaning, to say what has caused what. Both elements are part of a whole and as such they reinforce each other – one could say that they are both cause and effect of each other. On the other hand, the circularity of the cause-effect linkages at the level of system does not close the game, especially at the pragmatic level. Indeed, *the circularity does not mean homogeneous distribution of the capacities of influence.* In other words, dimensions in circular causal linkage may have different scales of variation and of temporality. And this makes the difference as to the practical influence one dimension plays on the other. For instance, say a population is characterized by a high incidence of feeling of anomy and high unemployment rate. Now, while from a theoretical standpoint the two dimensions are circularly linked, from a pragmatic standpoint the issue is to understand where it is possible to intervene, namely what dimension may change in a temporal unit that is consistent with human affairs and plans, and what is the extent of the variation of one dimension that one can expect to trigger a significant variation of the other dimension. The pragmatic decision of what has to be

considered the causative dimension and what has to be considered the effect depends on how one answers questions like these. Causal empirical models serve such pragmatic purposes.

5.3. Part II.B. Psychological correlates of symbolic universes

5.3.a. Framework

It is feature of SCPT, and more in general of cultural psychology, to conceive higher mental functions as contingent and situated within the cultural milieu (Cole, 1996, Valsiner, 2007, 2009; Vygotsky, 1934). Accordingly, this sub-area of investigation intends to understand if and to what extent psychological dimensions that could play a role in moderating the impact of policies are associated with specific symbolic universes (as mapped by task 3.1.a). The relevance of this analysis lies in the fact that the social identity is not only a matter of representational contents, but also of forms of cognitive and emotional functioning.

It is worth adding that, similarly to the approach adopted for the analysis of the socio-ecological correlates, we do not assume a deterministic top-down explicative linkage between symbolic universes and psychological dimensions. Rather, we assume that psychological dimensions are a constitutive component of symbolic universes – namely the way the latter are enacted at the individual level (Heft, 2013; Salvatore & Venuleo, 2013).

5.3.b. Method

Instruments

Thirteen instruments were used, each of them aimed at measuring one or a homogeneous set of psychological dimension(s). Most of them are widely used in various contexts of research and intervention. All the instruments are supported by empirical evidence supporting their reliability and validity. The dimensions taken into account can be grouped into three main classes:

- Personality characteristics (instruments 1-4)
- Modes of reasoning and thinking (instruments 5-7)
- Psychosocial indicators – i.e. Attitudes and beliefs (instruments 8-13)

The instruments used are the following (cf. Table 5.17).

1. Homogenization of Classification Functions Measure

The Homogenization of Classification Functions Measure (HOCFUN) (Tonti, Salvatore, 2015) is aimed at assessing the influence of emotional arousal on thought. The measure is based on the analysis of the way of responding to a rating task. Accordingly, it is an indirect measure not mediated by the self-representation of the subject.

2. Attachment Questionnaire Style (AQS)

The Attachment Questionnaire Style (AQS) is a self-report instrument, aimed at describing the respondent's way of approaching relationship in general. It yields five subscales: confidence, discomfort with closeness, relationships as secondary, need for approval, and preoccupation with relationships. These subscales can be understood in accordance to the Attachment Theory's concepts of avoidance and anxiety (Feeney, et al., 1994; Stein et al, 2002): discomfort with closeness and relationships as secondary reflect avoidance; need for approval, preoccupation with relationships, and (low) confidence reflect anxiety"

3. TIPI

TIPI (Gosling et al., 2003) is a short instrument used for assessing the Big Five dimensions, each corresponding to a subscale: Extroversion, Agreeableness, Conscientiousness, Emotional Stability, Openness to experience.

4. General Self-Efficacy Scale
The General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995) is designed to assess optimistic self-beliefs for coping with a variety of difficult demands in life. In contrast to other scales that were designed to assess optimism, this one explicitly refers to personal agency, i.e., the belief that one's actions are responsible for successful outcomes.

5. Resistance to Change Scale
The Resistance to Change Scale (Shaul, 2003) was designed to measure an individual's dispositional inclination to resist changes. The scale can be used to account for the individual-difference component of resistance to change and to predict reactions to specific change. The general score provided by the instrument was used in the current study.

6. Need for Closure Scale
The Need for Closure Scale (Kruglanski et al., 1993; Webster & Kruglanski, 1994) was designed to assess individuals' "motivation with respect to information processing and judgment". Need for Closure is defined as the desire for an answer in order to end further information processing and judgment, even if that answer is not the correct or best answer. It provides three scores: Preference for order and structure, Discomfort with ambiguity, Close-mindedness

7. Risk Propensity Scale
The Risk Propensity Scale (Meertens & Lion, 2008) measures the tendency to avoid or take personal risks. The scale refers to everyday risk-taking behaviour and does not measure thrill seeking or risks that involve violating social norms. In the context of the current analyses two subscale were used -Short focus, Rigidity- and the Overall score

8. Prejudice Scale
This scale measures perception, attitude and feeling towards foreigners (Costarelli, 2011). It is composed of 32 items. 4 of them concern the attitude toward foreigners. The other items concern the comparison of foreigners living in the place where one lives versus people that were born there as well as foreigners versus fellow-countrymen; these comparisons concern both a connotative level (with the use of value-laden characteristics, e.g. brave) and the feeling experienced by the respondent. In so doing, the representation of the foreigner is modulated in accordance to a twofold criterion – the proximity (foreigners living in other countries/living where the respondent lives) and the focus (one's feeling toward the object of the representation/the representation of the object).

9. Implicit Association Test
The Implicit Association Test (IAT) is the most used and tested indirect measure of implicit attitudes. It was realized by Greenwald & Farnham (2000) and successively applied in many areas of psychological research. The IAT is a latency-based categorization task designed to measure the strength of automatic mental associations between two opposing target concepts and two opposing attributes. In each trial participants are instructed to categorize a series of stimuli-words, as fast and accurately as possible, into two possible target categories and two possible attributes. All words are presented in random order within each block of trials.
In the context of the study the instrument was used for assessing the implicit attitude towards Europe with respect the rest of the world.[41]

[41]. Using the classical procedure (Greenwald, MacGhee & Schwartz, 1998), each IAT consists of seven blocks of trials: Block 1 (European Community vs. Rest Of The World), block 2 (e.g., Good vs. Bad) and block 5 (Rest Of The World vs. European Community) are single categorization blocks of 20 trials, whereas 3-4 and 6-7 are combined blocks of 20 (3-6) and 40 (4-7) trials. In the first combined block the two

10. Portrait Value Questionnaire

The PVQ21 (Schwartz, 2003) is a short version of a Portrait Value Questionnaire (PVQ), which was introduced to measure values. The 21 items provide scores for 4 scales, each of them concerning with a second-order value, being the combination of a set of more specific values: Self-Transcendence; Self-enhancement; Openness to change and Conservatism. The first scale concerns the pursuit of self-interest and hedonism, the second focuses on concern for the welfare and interests of others. Openness to change concerns values of self-direction and stimulation, emphasizing independent action, thought and feeling and readiness for new experience. The fourth scale concerns security, conformity and tradition emphasizing self-restriction, order and resistance to change.

11. Belief Just World

The Belief Just World (Lucas et al., 2011) measure was designed to assess the extent to which individuals believe in a just world, one that is fair, where people get what they deserve. The current study focused on the 2 subscales (Procedural Justice World and Distributive Just World) in the version focused on the perception of self.

12. Brief Sense of CommunityScale

The scale is designed to measure the sense of membership to the community (Peterson, Speer, McMillan, 1998). It is composed of 8 items that previous analyses have shown efficaciously detect the sense of the reciprocal linkage to the community, in terms of membership and capacity of being supported and fulfilled in one's needs and demands.

13. Scale of Perceived Social Support

The scale is designed to assess the feeling and belief associated with the experience of the primary relationship (Zimet et al, 1988).

Table 5.17. Analysis of the psychological dimension associated with symbolic universes. Instruments adopted

N	*Name*	*Description*	*Content / Subscale*
Personality characteristics			
1	HOCFUN	The Homogenization of Classification Functions Measure (HOCFUN) is aimed at assessing the influence of emotional arousal on thought. The instrument defines an indicator (κ) that measures the degree of homogenization of the ratings given over two rating scales (Pleasant–Unpleasant and Relevant–Irrelevant). Such a degree of homogenization is interpreted as the effect of emotional arousal on thinking, and therefore lends itself to be used as the marker of emotional arousal.	10 items
2	Attachment Style	This is a 40-item questionnaire which "asks participants to rate aspects of themselves and others on a 6-point Likert scale. It	40 items 5 subscales

target categories and the two attributes are associated with a certain associative pattern (i.e., European Community-Good vs. Rest Of The World-Bad) whereas in the second combined block the location of the target categories is switched with an inversion of the associative pattern (i.e., Rest Of The World-Good vs. European Community-Bad). The measure of the attitude towards the European Community has been obtained computing the difference between the mean latencies of the first and the second combined block. Assuming that reaction times are faster when the target concept and the attribute are strongly connected in memory than when they are not (Greenwald et al., 1998), the size of such difference can be used to infer the degree of the corresponding implicit attitude.

	Questionnaire	asks, by implication. about relationships in general rather than romantic or close relationships. It yields five subscales: confidence, discomfort with closeness, relationships as secondary, need for approval, and preoccupation with relationships. These subscales can be understood using the concepts of avoidance and anxiety: discomfort with closeness and relationships as secondary reflect avoidance; need for approval, preoccupation with relationships, and (low) confidence reflect anxiety	Confidence Discomfort with Closeness Need for Approval Preoccupation with Relationships Relationships as Secondary
3	TIPI	TIPI is a 10-item measure of the Big Five dimensions for situations when very short measures are needed, and personality is not the primary topic of interest, therefore researchers can tolerate the somewhat diminished psychometric properties associated with very brief measures. Although somewhat inferior to standard multi-item instruments. the instruments reached adequate levels in terms of: (a) convergence with widely used Big-Five measures in self, observer, and peer reports, (b) test–retest reliability, (c) patterns of predicted external correlates, and (d) convergence between self and observer ratings.	10 items 5 scales Extroversion Agreeableness Conscientiousness Emotional Stability Openness to experience
4	General Self Efficacy Scale (GSEF)	The General Self-Efficacy Scale is a 10-item psychometric scale that is designed to assess optimistic self-beliefs for coping with a variety of difficult demands in life. The scale was originally developed in German by Matthias Jerusalem and Ralf Schwarzer in 1979 and later revised and adapted to 26 other languages. In contrast to other scales that were designed to assess optimism. this one explicitly refers to personal agency. i.e. the belief that one's actions are responsible for successful outcomes. Perceived self-efficacy is a prospective and operative construct.	10 items
Modes of thinking and reasoning			
5	Resistance to Change (RCS)	The Resistance to Change Scale was designed to measure an individual's dispositional inclination to resist changes. The scale can be used to account for the individual-difference component of resistance to change and to predict reactions to specific change. It consists of 17 items using 6-point ratings (from 1=strongly disagree to 6=strongly agree).	16 items Overall score, Short term, and Cognitive rigidity subscales used
6	Need for closeness (NFC)	The Need for Closure scale was designed to assess individuals' "motivation with respect to information processing and judgment". NFC is defined as a desire for an answer in order to end further information processing and judgment, even if that answer is not the correct or best answer. It consists of 42 items using 6-point ratings	6 items 3 subscales (Preference for order and structure; Discomfort with ambiguity; Close-mindedness)
7	Risk Propensity Scale (RPS)	Risk Propensity Scale (RPS) is a short and easily administered tool that measures the tendency to avoid or take personal risks. The scale refers to everyday risk-taking behaviour and does not measure thrill seeking or risks that involve violating social norms. It consists in 7 items and all statements are rated on a 9-point scale ranging from 1 (totally disagree) to 9 (totally agree), except for the last item, which was rated on a scale ranging from 1 (risk avoider) to 9	7 items
Attitudes and believes			
8	Prejudice	Attitudes and prejudices toward strangers and foreigners	32 items

	Scales (PS)		
9	Implicit Association Test (IAT)	The instrument is aimed at measuring the implicit attitude towards social objects. In the framework of Re.Cri.Re. it is used for measuring the implicit attitude toward Europe	10 items
10	Portrait Value Questionnaire - Short version (PVQ)	The PVQ21 (Schwartz. 2.003) is a short version of a Portrayed Value Questionnaire (PVQ). which was introduced to measure values in a less abstract way than the SVS (Schwartz. 1992). Therefore, it is also applicable to respondents not used to answering questionnaires. The respondent rates how much each presented person is or is not like himself or herself. As results of that scores are inverted – the less the score the more the identification with the value.	21 items 4 macro-scales (Transcendence; Self-enhancement; Conservatism; Openness)
11	Belief Just World (BJW)	The BJW measure was designed to assess the extent to which individuals believe in a just world, one that is fair, where people get what they deserve. It consists of 8 items (four factors: Procedural Justice World, Distributive Just World, Perception of Justice for Self and Perception of Justice for Others) using 7 point ratings	8 items
12	Brief Sense of Community Scale (BSCS)	The instrument measures the sense of membership to the community (Peterson, Speer, McMillan, 2008) is designed to measure the feelings of being part of a meaningful and supportive community worth investment. The instrument is based on 2 items	8 items
13	Scale of Perceived Social Support	Multidimensional Scale of Perceived Social Support (MSPSS; (Prezza and Principato 2002; Zimet, Dahlem, Zimet, and Farley, 1988) is a measure designed to assess the perception of social support.	12 items (8 items used in the study)

Procedure

The instruments were applied online. To this end, they were added to the VOC questionnaire. However, in order to reduce the length of the whole application, instruments were applied in a cycle in combination with the VOC questionnaire. Each combination is composed of a base of 8 instruments merged with the online version of VOC (*Sense of Community, Primary Bond, Prejudice Scale, Self Efficacy; Risk Propensity Scale; TIPI; Belief Just World*), with (or without) the addition of 1-5 other instruments that varied over combinations. As a result, 18 combinations were defined and rotated systematically over respondents (the *jth+1* combination was activated for the *jth+1* respondent; Table 5.18 reports the combination schema).

Sample

The analyses were based on a set of subsamples of the Sample 0 (cf. §4.3.c), each of them specific to the instrument. Each sample resulted from the combination schema. All participants that responded to an instrument were included in the sample of the corresponding instrument, with the exception of the subsamples concerning the 3 instruments (*Prejudice Scale, Sense of Community, and Perceived Social Support*) that required a preliminary Factor Analysis (see below, Data Analysis); in these cases Sample L1 was used.[42]

Data Analysis

In order to assess the different level of the psychological dimensions among symbolic universes a series of univariate analyses (ANOVA) were performed, each of them with the symbolic universes

[42]. These three instruments are part of the "base" combination, merged with VOC. Consequently, they were applied to the whole of Sample 0 and this allowed the use of the Sample L1 (which is a subsample of Sample 0) for analyses concerning them.

identified in the L1 stage of analysis as factor, and the indicator(s) of the psychological dimensions as dependent variable. However, in most cases Leven's test led to reject the assumption of equivalence of the groups' variance; consequently non-parametric tests were used (Kruskal-Wallis for independent sample test). Due to the large size of the sample, a conservative alfa level was used (p=0.01)
In the case of instruments Prejudice Scale (8), Sense of Community (12), and Perceived Social Support (13), consistently with a procedure widely adopted in the literature, the responses were subjected preliminary Factorial Analyses (Principal Component Analysis, Oblimin rotation) and for the Prejudice Scale one Factorial Analysis for each of the two blocks of items.

Table 5.18. Combinations of instruments adopted

Combinations	*BASE* *VOC. Self Efficacy; Sense of Community. Bond; Prejudice Scale; Risk Propensity Scale; TIPI; Belief Just World*	*HOCFUN*	*Attachment Style Questionnaire*	*Resistance to Change; Need For Closeness*	*Portrayed Values Questionnaire*	*IAT*
1	1		1			
2	1			1		
3	1				1	
4	1					1
5	1	1				
6	1		1	1		
7	1		1		1	
8	1		1			1
9	1	1	1			
10	1			1	1	
11	1			1		1
12	1	1		1		
13	1				1	1
14	1	1			1	
15	1	1				1
16	1	1			1	1
17	1			1	1	1
18	1		1		1	1

5.3.c. Results

Personality characteristics

1. HOCFUN

HOCFUN was applied to a subsample of 739 respondents of sample 0 (Women=58.7%, Average age=41.03 [sd=15.485]). No significant difference was found among symbolic universes

2. Attachment Questionnaire Style

AQS was applied to a subsample of 707 respondents of sample 0 (Women=59.5%, Average age=42.96 [sd=16.323]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used. Differences among symbolic universes were statistically significant in 3 out of 5 subscales (Relationships as secondary, Need for approval, and Concerns with relationships).
Taken as a whole, these comparisons show that *ordered universe* and *interpersonal bond* are characterized by a less anxious and avoidant relational style compared to *others' world* and above all *niche of belongingness*, with *caring society* in an intermediate position (Cf. Figure 5.1).

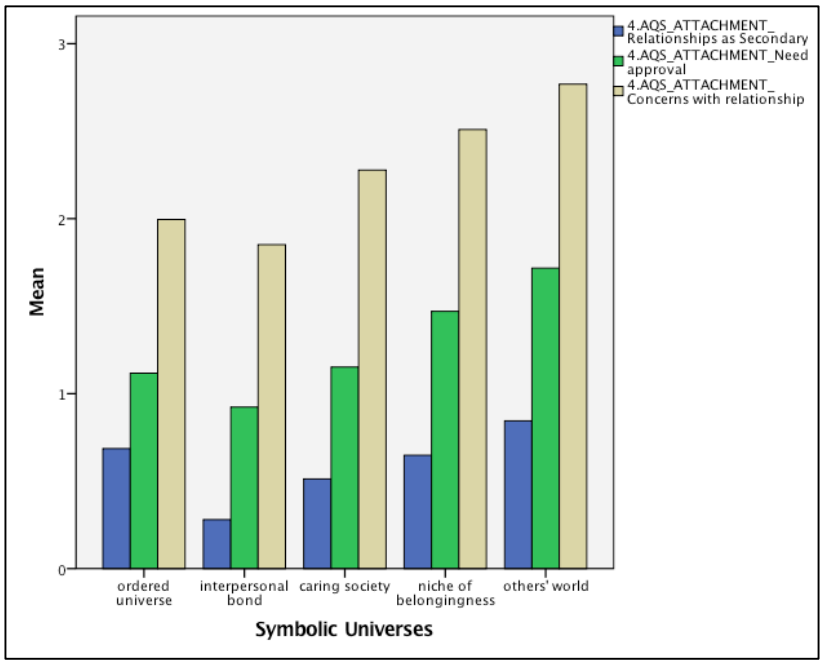


Figure 5.1. Attachment Style Questionnaire * symbolic universes

3. TIPI

TIPI was applied to a subsample of 3398 respondents of sample 0 (Women=62.2%, Average age=39.60 [sd=15.615]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used.
Differences among symbolic universes were statistically significant on all 5 subscales. *Niche of belongingness* and *others' world* present lower scores than the other symbolic universes on all subscales (cf. Figure 5.2).

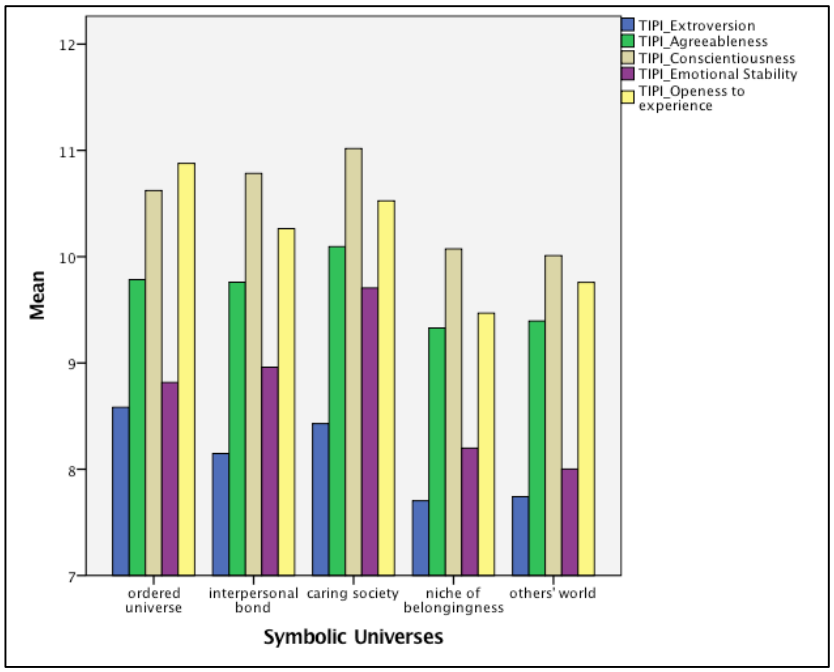


Figure 5.2. TIPI * symbolic universes

4. General Self-Efficacy Scale

The General Self-Efficacy was applied to a subsample of 3265 respondents (Women=62.7%, Average age=39.23 [sd=15.322]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used.

Differences among symbolic universes were statistically significant. *Caring society* and *ordered universe* have higher average levels, *niche of belongingness* shows the lowest (cf. Figure 5.3).

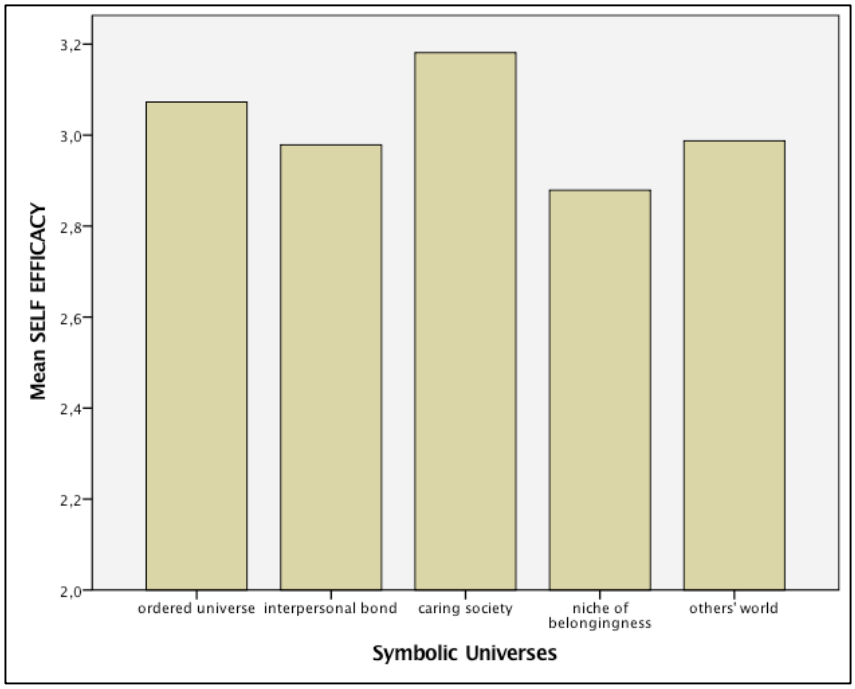


Figure 5.3. Self Efficacy Scale * symbolic universes

Summary

The comparisons on the self-report measures showed systematically a statistically significant difference among groups of respondents corresponding to the 5 symbolic universes. By contrast,

no differences were found on the measure that adopted an indirect method for assessing a very basic psychological process (i.e. the influence of emotion on thought).
Taken as a whole, the comparisons show that *ordered universe*, *caring society* and *interpersonal bond* have higher level of personality characteristics (e.g. Extroversion, Openness to experience, Need approval, Self-efficacy) that can be considered positive psychological resources for adjustment and personal/social development as well as a lower level of critical aspects (e.g. concern with relationship) than *niche of belongingness* and *others' world*.

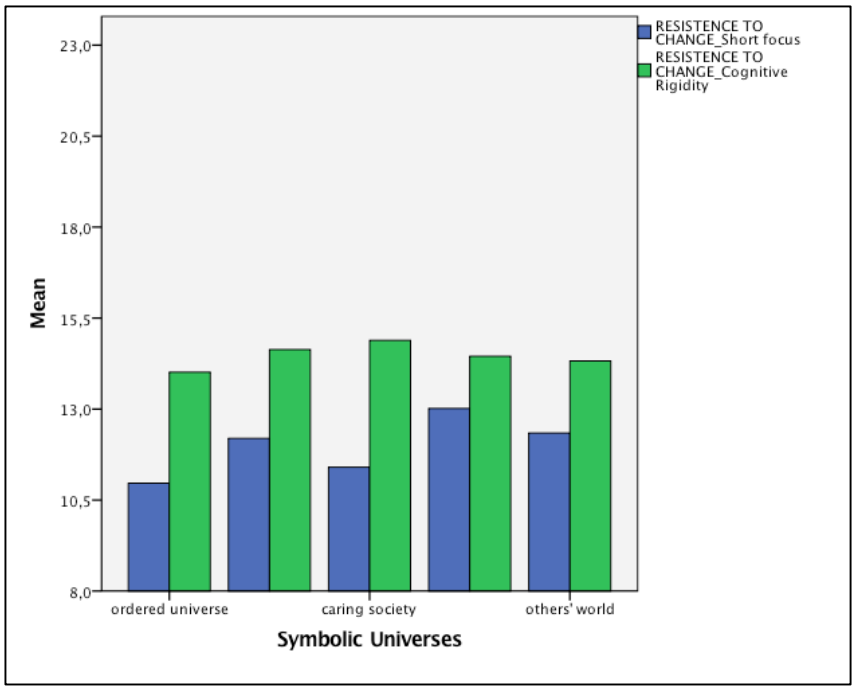
Modes of thinking and reasoning

5. Resistance to Change Scale

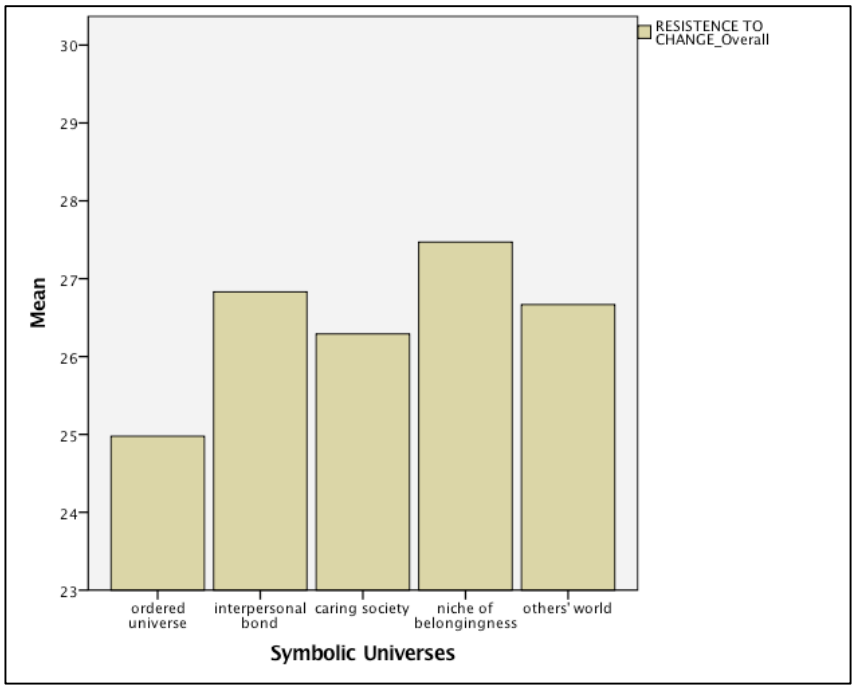
The scale was applied to a subsample of 3147 respondents from sample 0 (Women=61.6%, Average age=40,44 [sd=15,526]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used.
Differences among symbolic universes were statistically significant. On both subscales and overall score, *Ordered universe* showed lower levels than other symbolic universes, in particular *niche of belongingness* (Figure 5.4)

6. Need for Closure Scale

The Need for Closure Scale was applied to a subsample of 1044 respondents from Sample 0 (Women=59.4%, Average age=40.38 [sd=15.206]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used.
Differences among symbolic universes were statistically significant for 2 subscales out of 3: Discomfort with ambiguity and Close-mindedness. For Discomfort with ambiguity, *interpersonal bond* and *niche of belongingness* show higher scores than other symbolic universes. For Close-mindedness, *niche of belongingness* and *others' world* showed the highest level (figure 5.5).



a. Subscale



b. Overal score

Figure 5.4. Resistence to Change Scale * symbolic universes

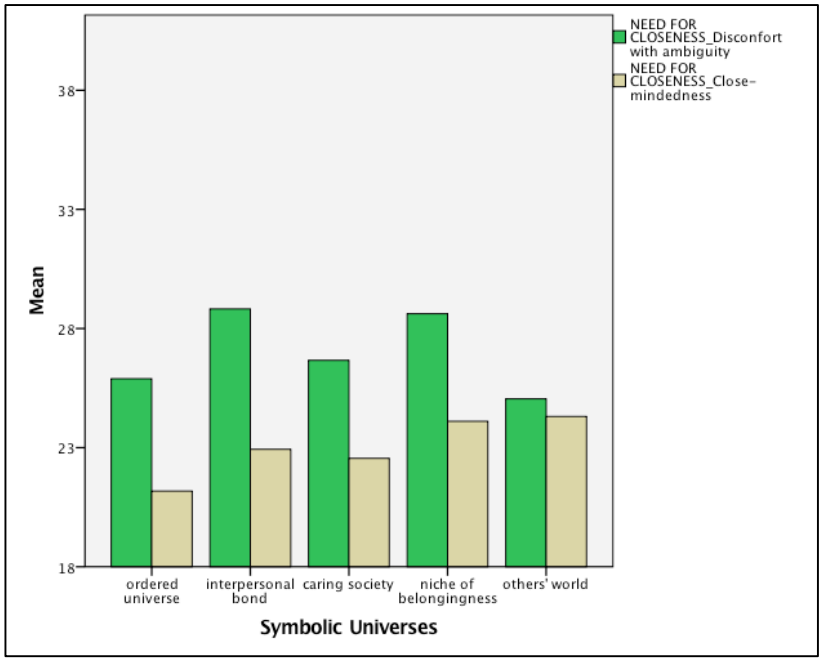


Figure 5.5. Need for Closure Scale * symbolic universes

7. Risk Propensity Scale

The Risk Propensity Scale was applied to a subsample of 3423 respondents from sample 0 (Women=62.3%, Average age=39.61 [sd=15.612]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used.

Differences among symbolic universes were statistically significant *Ordered universe* has the highest level, *caring society* the lowest (Figure 5.6)

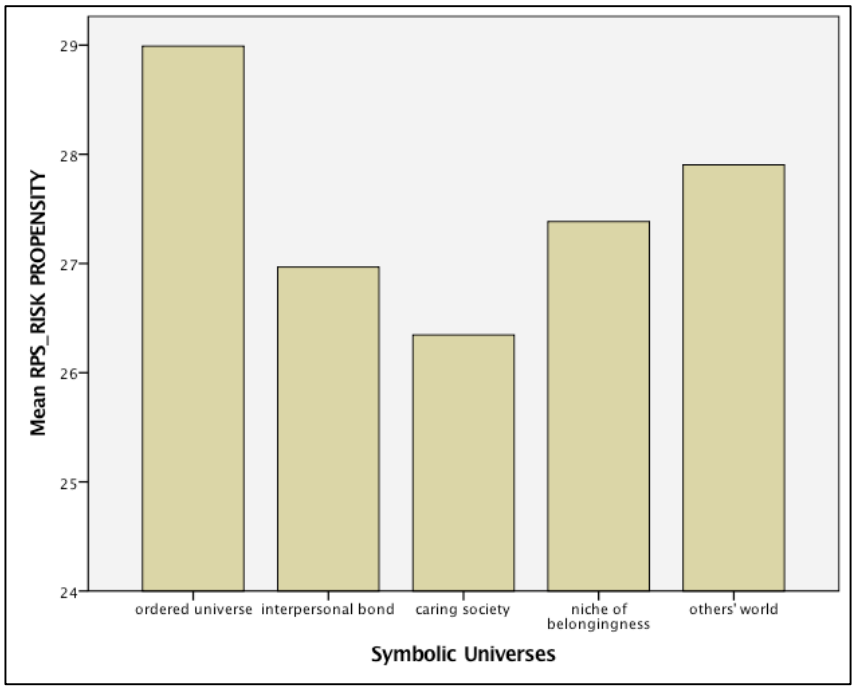


Figure 5.6. Risk Propensity Scale * symbolic universes

Summary

Comparisons show that *ordered universe*, *caring society* and partially *interpersonal bond* are characterized by lower level modes of thinking (Resistance to change, Close-mindedness) which can be considered critical modes for adjustment. Ordered universe is also characterized by a form of reasoning that can be considered a cognitive resource for oneself and society (e.g. Risk propensity). On the other hand, *niche of belongingness* and in part *others' world* appear characterized by critical forms of thinking (resistence to change, close mindedness, discomfort with ambiguity).

Attitudes and beliefs

8. Prejudice Scale

The two blocks of items comprising the scale were subjected preliminarily to 2 Factorial Analyses (Principal Component Analysis, Oblimin rotation) – one for each block of items - in order to reach a synthetic description of the construct. Analysis adopted the Sample L1.

The first PCA WAS applied on n=720 valid cases (Women=50.7%, Average age=43.94 [sd=16.817]). and extracted one factorial dimension (52.8% of variance explained) (cf. Table 5.19); according to the level and direction of the items' saturation we labelled it: *Openness to foreigners.* The second PCA was based on n=457 valid cases and extracted 2 main factors (about 40% of the variance explained), which we interpreted as: *Positive connotation of otherness; Negative connotation of otherness* (cf. Table 5.20).

Then, we compared the 5 symbolic universes over the 3 factorial dimensions extracted. Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used As to the first scale – Openness to foreigners – the difference among symbolic universes proved to be statistically significant. *Ordered universe*, *caring society* and also *interpersonal bond* - though at a lower level, show positive scores, whereas *niche of belongingness* and *others' world* are characteried by negative scores, indicative of a lack of openness to foreigners (cf. Figure 5.7). The symbolic universes show difference on the other two factorial dimensions too, but only tending to significant. However, others' world showed a significantly lower level of positive connotation of

otherness than all other symbolic universes and higher level of negative connotation of otherness than all other symbolic universes except *interpersonal bond*.

Table 5.19. Prejudice Scale. Preliminary PCA applied on the block of items: Attitude toward foreigners

Item	*Component*
	1
It would not be a problem if a foreigner became my relative	0.797
I would find nothing wrong with working for a foreigner	0.770
It would be better for foreigners to avoid places where they are not welcome	-0.676
Foreigners living in the place where I live transmit values to their children that are often in conflict with the ones of my community	-0.653

Table 5.20. Prejudice Scale. Preliminary PCA applied on the block of items: Foreigner-Native Comparison

Item	*Components*	
	1	2
FEELING TOWARD COUNTRYMEN vs OTHER COUNTRY- love	0.72	
FEELING TOWARD COUNTRYMEN vs OTHER COUNTRY-approval	0.707	
FEELING TOWARD COUNTRYMEN vs OTHER COUNTRY- sympathy	0.702	
FEELING TOWARD NATIVE vs FOREIGNER-sympathy	0.701	
FEELING TOWARD NATIVE vs FOREIGNER- love	0.677	
DESCRIBE BETTER NATIVE vs FOREIGNER - honest	0.655	
FEELING TOWARD NATIVE vs FOREIGNER-approval	0.648	
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-peaceful	0.643	
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-honest	0.641	
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-generous	0.634	
DESCRIBE BETTER NATIVE vs FOREIGNER - peaceful	0.597	
DESCRIBE BETTER NATIVE vs FOREIGNER - generous	0.575	
DESCRIBE BETTER NATIVE vs FOREIGNER - cultured	0.548	
FEELING TOWARD NATIVE vs FOREIGNER- anger	-0.539	0.501
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-smart	0.535	0.32
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-cultured	0.534	
DESCRIBE BETTER NATIVE vs FOREIGNER - smart	0.488	
DESCRIBE BETTER NATIVE vs FOREIGNER - brave	0.487	
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-brave	0.46	
FEELING TOWARD NATIVE vs FOREIGNER-disregard	-0.398	0.6
FEELING TOWARD COUNTRYMEN vs OTHER COUNTRY-indifference	-0.475	0.566
FEELING TOWARD COUNTRYMEN vs OTHER COUNTRY- disregard	-0.389	0.552
FEELING TOWARD COUNTRYMEN vs OTHER COUNTRY-anger	-0.507	0.536
FEELING TOWARD NATIVE vs FOREIGNER-indifference	-0.411	0.528
DESCRIBE BETTER NATIVE vs FOREIGNER - Naive		0.324
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-naive		0.387
DESCRIBE BETTER COUNTRYMEN vs OTHER COUNTRY-bullish	-0.368	0.32
DESCRIBE BETTER NATIVE vs FOREIGNER - bullish	-0.426	

Oblimin rotation; Factorial loading reported when >.|30|

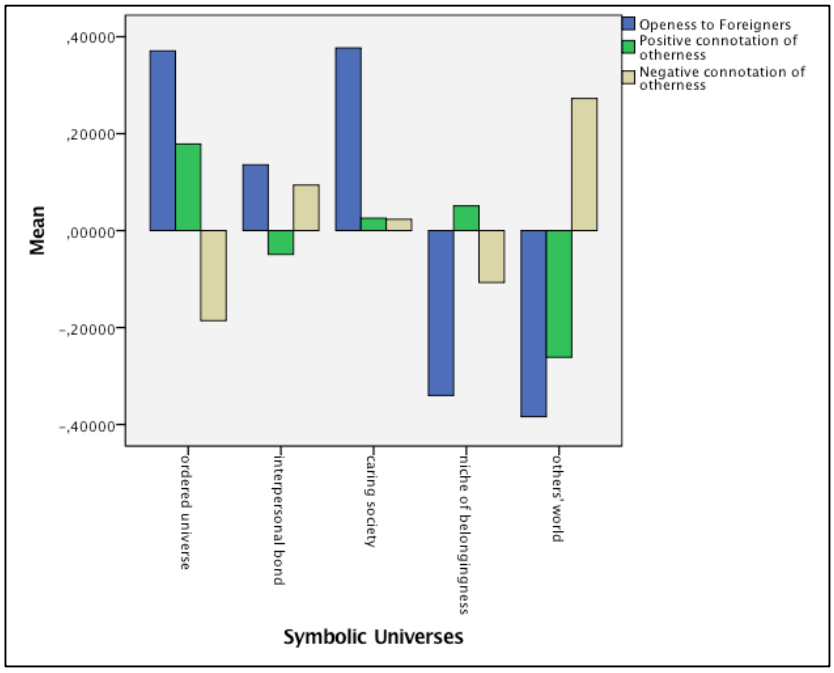


Figure 5.7. Prejudice Scale * symbolic universes

9. Implicit Association Test

The IAT was applied on a subsample of n=191 respondents (Women=59.4%, Average age=38.62 [sd=15.737]).
The ANOVA test proved to be not significant.

10. Portrait Value Questionnaire - Short version (PVQ)

The analysis was performed on a subsample of 1239 respondents (Women=60.5%, Average age=40.79 [sd=15.474]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used. Symbolic universes were significantly different on 3 out of 4 scales of values: *Transcendence; Self-enhancement; Openness;* moreover, the differences concerning the other scale – *Conservatism* - proved to be on the verge of significance (p=0.39), due to the decision to adopt a conservative level of significance. As to Trascendence, differences are due to *ordered universe*, which has a significantly higher level of the value (therefore lower score, given that t PVQ scores are inverted) than all other symbolic universes, except caring society (Tamhane test, p< 0.001). Difference showed by *Conservatism* are due to the fact that *niche of belongingness* proved to have higher identification with this value than *interpersonal bond* and *ordered universe*. As to *Openness,* the significant difference concerns *ordered universe* with respect to *interpersonal bond*, with the former being more identified with such a value than the latter (cf. Figure 5.8).

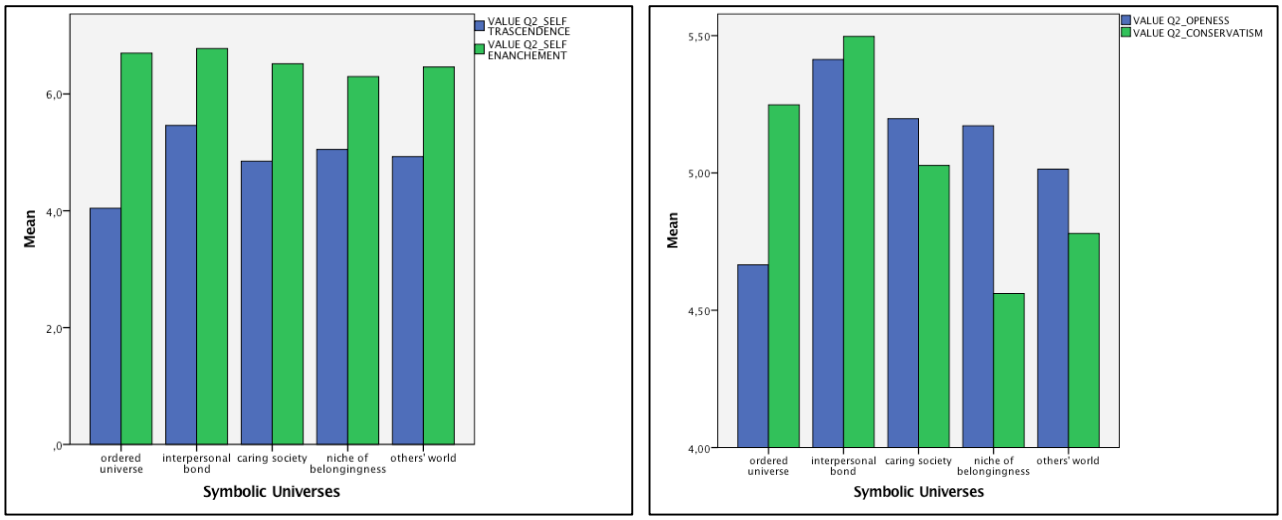


Figure 5.8. Portrait Value Questionnaire * symbolic universes

11. Belief Just World

The instrument was applied to a subsample of 2922 respondents (Women=61.9%, Average age=40.02 [sd=15.253]). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used. Symbolic universes were significantly different on both subscales. In both cases *caring society* has a higher score than all other symbolic universes, with *ordered universe* and *interpersonal bond* having a higher level than *niche of belongingness* and *others' world* (cf. Figure 5.9).

12. Sense of Community

The Principal Component Analysis (applied on the Sample L1, n=708 valid cases; Women=51.4%, Average age=43.74 [sd=16.77]), extracted two factorial dimensions (68,05% of variance explained) (cf. Table 5.21). Factors lend themselves to be interpreted in terms of *Community linkage* and *Community's capacity of fulfilment.* This result overall is consistent with the general tendency found in the literature. Indeed, in some cases, studies confirm the four-factor model proposed by McMillan & Chavis (1986) (see for example Peterson, Speer, & McMillan, 2008; Mannarini, Rochira, & Talò, 2014), while in some others, depending on the Sense of Community measure used, a three-factor structure emerged (Long & Perkins, 2003).[43]
Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used. Symbolic universes were statistically different on both factorial dimensions; differences are due to *caring society*, which have higher scores than *others' world* and *niche of belongingness* (cf. Figure 5.10).

[43]. More specifically, in the curren analysis the component of influence (represented by two items: "I have a say about what goes on in my community"; "People in this community are good at influencing each another") did not emerge as an independent factor; rather it was merged with the first factor. This result is not inconsistent with the current literature on sense as community. where different factor structures emerged, with items differently combined. For instance. analyses from Long and Perkins (2.003) showed a three-component structure (social connections, mutual concerns, community values) which did not include "influence".

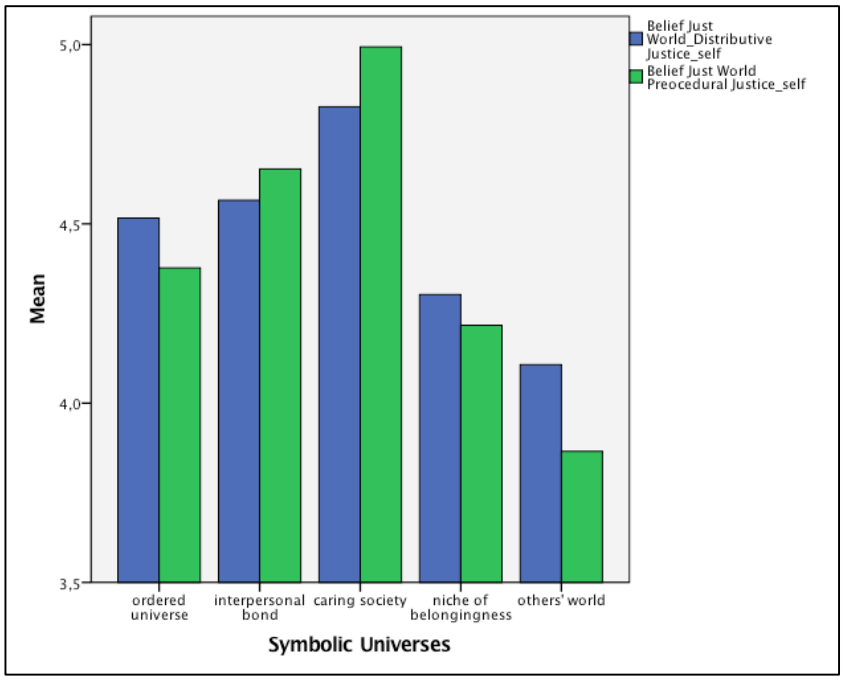


Figure 5.9. Belief Just World * symbolic universes

Table 5.21. Sense of Community. Preliminary Factorial Analysis (PCA)

	Components	
Item	1	2
I feel connected to this community	0.766	
I have a good bond with others in this community	0.765	
I belong in this community	0.732	
People in this community are good at influencing each another	0.720	
I have a say about what goes on in my community	0.708	
I feel like a member of this community	0.669	0.376
I can get what I need in this community		0.902
This community helps me fulfil my needs		0.826

Oblimin rotation; Factorial loading reported when >.|30|

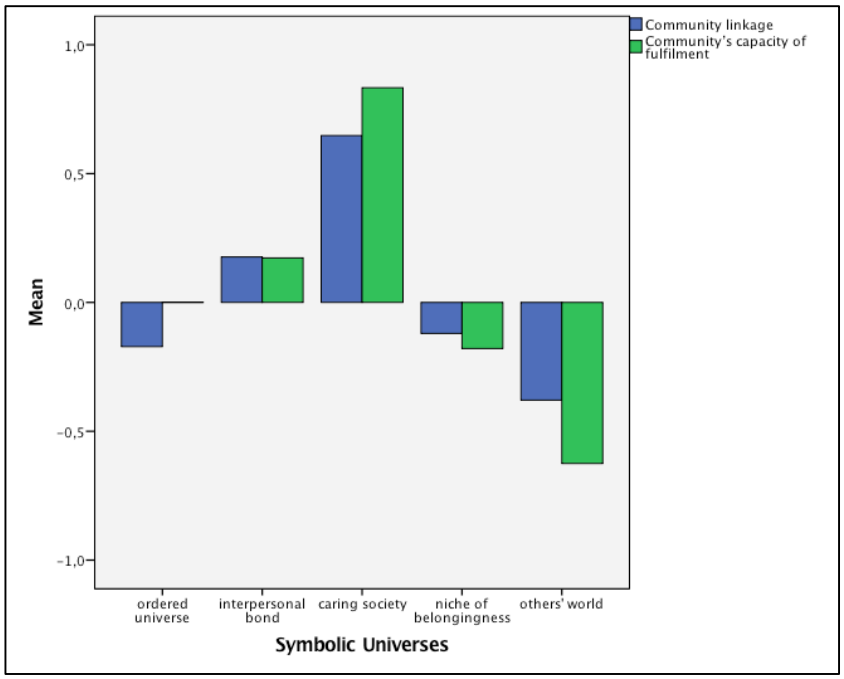


Figure 5.10. Sense of Community * symbolic universes

13. Scale of Perceived Social Support

The Principal Component Analysis (applied on the Sample L1, n=712 valid cases) extracted one factorial dimension (75.16% of variance explained) (cf. Table 5.22) that we labelled *Social Support* (cf. Table 5.26). Given that the assumption of homogeneity of the variance had to be rejected, non-parametric tests were used. The scores on the factorial dimensions were statistically different among symbolic universes. Post hoc comparisons show that this difference is due mainly to *caring society, ordered universe*, and *interpersonal bond*, which have statistically significant higher scores than other symbolic universes (cf. Figure 5.11).

Table 5.22. Scale of Perceived Social Support. Preliminary PCA

Item	*Component*
I can share my problems and doubts with them	0.888
I feel they are close to me	0.888
I get solidarity and the moral support I need from them	0.877
I can share my joys and successes with them	0.876
I can count on them when things go wrong	0.863
They are willing to help me make decisions	0.855
Take care of me	0.850
I find comfort in them	0.837

Oblimin rotation; Factorial loading reported when >.|40|

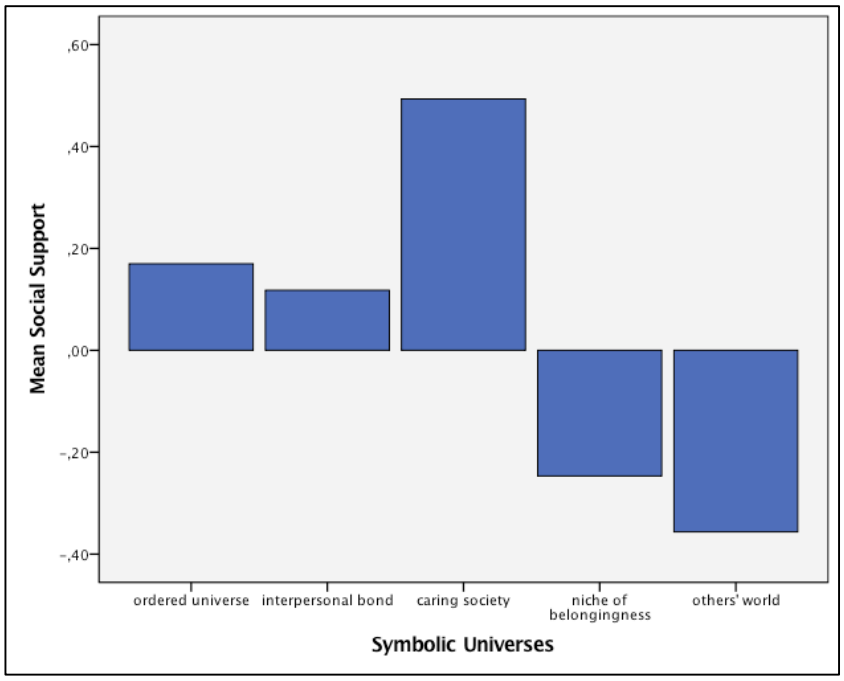


Figure 5.11. Scale of Perceived Social Support * symbolic universes

Summary

The analysis concerning the instruments assessing the psychosocial dimensions (i.e. attitudes and beliefs) highlights three main patterns.

First, the symbolic universes characterized by an anomic worldview – *others' world* and *niche of belongingness* - are associated with less positive attitudes towards otherness (as detected by the Prejudice Scale), lower sense of justice (both scales of Belief Just World), low sense of community, both in terms of belongingness (subscale Community linkages) and feeling of being supported by it (subscale Community's capacity of fulfilment).

Caring society has a high sense of community (in particular in the component detected by the subscale Community's capacity of fulfilment) and valorises primary relationships (Social Support).

Ordered universe is characterized by a mix of valorisation of primary relationships (high score on Social Support) and positive attitude towards the systemic dimension (as signalled by the positive feelings towards otherness and high level of Self-transcendence and low Self-Enhancement).

Table 5.23. Scale of Perceived Social Support * symbolic universes. Post hoc comparisons (Tamhane test)

	(I) SYMBOLIC UNIVERSES (L1)	*(J) SYMBOLIC UNIVERSES (L1)*	*Mean Difference (I-J)*	*Stand. dev. error*	*Sig.*
Social Support	*Ordered universe*	*Interpersonal bond*	*0.27165815*	*0.11305297*	*0.159*
		Caring society	*-0.0834753*	*0.14524435*	*1*
		Niche of belongingness	*0.278.00182*	*0.11150579*	*0.127*
		Others' world	*0.72798426**	*0.18839137*	*0.002*
	Interpersonal bond	*Ordered universe*	*-0.27165815*	*0.11305297*	*0.159*
		Caring society	*-0.35513345*	*0.13420251*	*0.089*
		Niche of belongingness	*0.00634367*	*0.09668472*	*1*
		Others' world	*0.45632611*	*0.18.001584*	*0.123*
	Caring society	*Ordered universe*	*0.0834753*	*0.14524435*	*1*
		Interpersonal bond	*0.35513345*	*0.13420251*	*0.089*
		Niche of belongingness	*0.36147712*	*0.13290177*	*0.073*
		Others' world	*0.81145956**	*0.20179358*	*0.001*

	Niche of belongingness	*Ordered universe*	*-0.278.00182*	*0.11150579*	*0.127*
		Interpersonal bond	*-0.00634367*	*0.09668472*	*1*
		Caring society	*-0.36147712*	*0.13290177*	*0.073*
		Others' world	*0.44998245*	*0.17904823*	*0.131*
	Others' world	*Ordered universe*	*-0.72798426**	*0.18839137*	*0.002*
		Interpersonal bond	-0.45632611	0.18.001584	0.123
		Caring society	-0.81145956*	0.20179358	0.001
		Niche of belongingness	-0.44998245	0.17904823	0.131

* $p<0.01$

5.3.d. Conclusive remarks

The results presented in this section prompt comments in several directions.

First, taken globally they support the theoretical validity of the general framework Re.Cri.Re. is grounded as well as the conceptual and practical value of the symbolic universes identified by the map of the cultural milieu.

On the one hand, symbolic universes differed not only at the psychosocial level – namely at the level focused on by the VOC items – but also at the level of personality characteristics and modes of thinking and reasoning. Needless to say, the findings cannot exclude the individualist alternative hypothesis that symbolic universes are mindsets shaped by personality traits. Thus, we will simply say that they are consistent with the basic assumption of the contingency of the psychological processes to the cultural milieu (cf. § 5.3.a). From a complementary standpoint, the partiality of the association between symbolic universes and psychosocial factors must be highlighted – they were related, yet not overlapping; and this is despite the fact that the aspects of communitarian and interpersonal bond as well as the attitude towards otherness represent constitutive concepts in the interpretation of several symbolic universes. The lack of major overlap between symbolic universes and constructs concerning psychosocial measures is relevant for both theoretical and practical reasons. From a theoretical standpoint, it shows that the value a certain psychosocial element assumes in the framework of a given symbolic universe depends on the network of meanings it is embedded in, rather than on its having an invariant significance. And this contextual meaning is not necessarily the same as that which the psychosocial measure expresses at the level of the prevalent way of being interpreted. To give an example, the symbolic universe *interpersonal bond* does not show a high level on Social support. On the other hand, this makes sense insofar as one recognizes that in the context of this symbolic universe the relational experience is interpreted in terms of adjustment to a substitutive world, not necessarily connoted by the supportive, holding valence implied in the average meaning of the Social support scale. From a practical standpoint, this means that the measurement of a single constructs helps, but it does not solve the issue of mapping the worldviews that underpin and shape psychosocial characteristics.

On the other hand, the direction of the differences among symbolic universes is quite consistent with the interpretations we proposed in part I of the report. The main evidence of this is provided by the critical values marking, in almost all indicators, the two symbolic universes featuring the anomic experience of the world – *niche of belongingness* and *others' world*. The group of people belonging to these two universes had a lower level of positive personality traits and functional modes of thinking; lower level of positive attitude towards otherness; lower level of positive sense of interpersonal and communitarian linkages.

C*aring society* and *ordered universe* appear to be, in a sense, specular to the two anomic symbolic universes – they present positive personality characteristics as well as a level of psychosocial indicators, signalling the capacity to valorise and make interpersonal and social life meaningful. Once the intermediate position of *interpersonal bond* is added to these differences on most of the psychological and psychosocial indicators, quite an interesting isomorphism can be identified

between the relations symbolic universes show at the level of psychological and psychosocial characteristics and their position on the semiotic field (cf. Figures 4.6 and 4.7).
Second, some results provide complementary sources of evidence that help to enrich the interpretation of symbolic universes. According to this perspective, one can see that the sense of community that characterizes *caring society* is an expression of the feeling of the way the community is able to support its members – this is consistent and further highlights the core aspect of this symbolic universe: the anchorage to the social system as the provider of resources and conditions for one's agency and development. Finally, it was seen that the *ordered universe*'s commitment to values of Self-transcendence – together with the low level of Conservatism and Self-Enhancement - as well as openness to otherness, is consistent with the interpretation of this symbolic universe as the expression of the fundamental trust in the inherent order of life. On the other hand, the fact that this symbolic universe does not show an equivalently high sense of community is an indirect support to the view that the sense of trust that qualifies this symbolic universe is rooted in an abstract normative framework of beliefs (whether they be ethical, ideological, religious) that grounds, rather than being fostered by, interpersonal and social experience.

6. PART III. THE ENACTMENT OF SYMBOLIC UNIVERSES

6.1. Aims

This area of investigation is designed to shed light on how symbolic universes are translated into the subjective lives of ordinary citizens, both at the embodied level of everyday relations with their environments and in discourse and communication.

This purpose plays an important role in the Re.Cri.Re. framework, as symbolic universes are the results of human social development in socio-politically organized macro-contexts. Accordingly, the strategic aim of drawing methodological implications for policy design from the analysis of the cultural milieu requires that the developmental roots of symbolic universes have to be studied. Indeed, symbolic universes are abstract constructs concerning a general interpretative level of analysis. Yet the reality of these universes is the concrete basis for any action at the level of local policy making—by politicians, city and community councils, and other participants in the policy making process. In democracy it is the ordinary person who has the final collective word—politicians come and go after their terms are finished or they are forced out by the democratic processes, but the voting public stays as long as democracy is in place. *Policies do not meet symbolic universes, but real people;* therefore they cannot avoid relating with the way cultural dynamics are instantiated by people. As a result, an analysis of the cultural milieu that aims to be useful for policy makers must not be confined to either the identification of symbolic universes substantiating the cultural milieu or their systemic effect. In fact, analysis also has to understand how such meanings become "flesh and blood", namely how symbolic universes are enacted in people's daily life, in terms of attitudes, discourses and acts performed in communication as well as in the bodily dynamics underpinning the individual's experience. Accordingly, this area of investigation pursues two complementary goals.

A) the micro-analysis of the processes of attention directed to various structural components of the real socio-political life context that the persons pass through in their everyday activities. It is within such experiences where the symbolic universes carried within the active citizens' minds are embodied in everyday practices.
B) the analysis of concrete discursive practices in conflicting communication circumstances, where the subject's worldview is challenged - then pushed to express itself - by the relevance of the circumstance and/or of the topic to the subject's identity.

In what follows, goals, method and results of point A are outlined. The research design of point B is reported in Annex 2.

6.1.a. Research goals

The study intends to analyse how the embodied experience is modulated by the structure of personal symbolic universe. To this end, the study focused on a specific component of the latter: the individual's *distribution of attention*. This component was chosen on the grounds of the idea that any symbolic universe is enacted in a very specific embodied subjective pattern, which is expected to affect any form of activity, including attention distribution. Accordingly, the study aims at describing how the dynamics of attention—recorded by tracing of the visual gaze exploring a meaning-laden picture—is channelled by the symbolic universes.

More specifically, the study is aimed at obtaining high-frequency high-resolution eye movement data that allows for classificatory content-free analysis of fixation distribution in addition to content-specific fixation patterns (Areas of Interest analysis), so that features such as exploratory character of image viewing can be estimated and related with Views of Context inventory (Salvatore et al., 2017).

6.1.b. Method

Design

The microanalysis of the embodied dimension of the individual dynamics of sensemaking was done by means of an innovative variant of the cultural psychology method of micro-genetic analysis (Valsiner, 2012). This method is a classic in the research of perception and human personality—the techniques of microgenetic experimentation were developed in the 1920s by the German researchers on visual perception. A version of looking at the processes of the "making of the actual" (*Aktualgenese*) within the structure of human personality was taken to be an established method in Sweden (The Lund School of personality psychology led by Gudmund Smith and Ulf Krogh). Both these classic traditions were laboratory-based whereas the method has been adjusted to be used in real everyday contexts over the last century (Kharlamov, 2012). In our study we aimed at taking a direct look at how people orient their gaze in ecologically significant settings, characterized for the high saturation of culturally salient messages.

This line of research stemming from psychology has its interdisciplinary parallel in the sociology and anthropology of urban living, where there is coonsiderable focus on real-life living environments as targets of study (Ingold, 2000; Kitchin and Blades, 2002; Klarlamov, 2012).

Sample

30 participants were recruited. All participants were recruited during lectures at Aalborg University Campus. Students were given information about the project and asked to write down their email-address or phone number if they were interested in participating in the experiment. Out of fifty participants, who signed up for the experiments, 15 women and 15 men were randomly selected to participate using a random selection technique. All participants were Danish; their age ranged from 20 to 23 years (mean=23, sd=2,252).

Three subjects (subject number: 1, 16 and 24) were wearing contact lenses during the experiment. Furthermore two subjects (subject 8 and 11) were using reading glasses, which they were asked to remove during the eye-tracking part of the experiment.

Due to equipment failure one subject did not complete the eye-tracking paradigm and was therefore excluded from analyses.

Procedure

The experiment involves participants exposed (time of exposition: 5 sec.) to two images containing political figures and symbols related to Denmark and the European Union. The two images were the same except for the presence of the flag of the European Union in one of them (however the difference between the two stimulus has not been analysed in the context of the current study). Participants wore SMI eye tracking system in order to have their eye movements mapped.

Following the eye-tracking paradigm, participants filled out the Views of Context questionnaire (VOC, Short version, Danish language).

Figure6.1. Images used in the eye tracking paradigm

Instrument

Eye movement data was collected with SMI RED250m 250Hz remote eyetracker using SMI Experiment Center (v. 3.7) software.

The SMI eye tracking system maps the moment by moment position of eye focus over the field of view. The eye tracking equipment is in the shape of skiing-type glasses worn by the participant. As the participant moves, a front-facing camera (located in the middle of the brow just above the participant's nose) records the field of view while cameras facing the participant's eyes record eye movements using infrared illumination and reflection of it in the cornea around the pupil (the so-called dark pupil tracking using Purkinje corneal reflection).

This system allows free head movement and free movement of the participant in the environment.[44] In order for the firmware to work, the system needs to be calibrated for each participant, that is, the initial mapping of pupil position onto scene video is done with manual assistance from the operator (researcher). One-point calibration was used for these participants, meaning that the participants were asked to look, without moving, at one specific target while the operator confirmed that the system identified the gaze position correctly (or applied correction by manually aiming the gaze point at the chosen target in the video frame).
Full stimuli dimensions (including grey borders) are 1920x1080, as presented on a 60Hz LCD display with native resolution 1920x1080. Nine-point calibration with validation was used for all participants. Data was collected at 250 Hz, with the exception of the first two participants (P01 and P02), whose data was collected at 60 Hz due to software error.
The raw data produced by the eye tracking equipment firmware underwent to a post-hoc processing supported by the supplied software (software BeGaze, v 3.7). Among the data obtained,[45] the current study focused on the time stamped estimates of Points of Regard provided by the eye tracking software. Point of Regard means the equipment's (algorithm's) estimate of the target of the participants' gaze (where is the participant looking at that particular moment), in pixels, in X-Y coordinate system corresponding to the stimulus space, with 0-0 being the top left corner of the frame.[46] The current study concentrated on the space-temporal structure of the Point of Regard, regardless of their phenomenological content (i.e. regardless of the content of what the person looks at).

Data analysis

1. *Activity*. The whole distance travelled by the eyes over the experimental session. This summary parameter is expected to be indicative of the level of individual activation, thus a potential indicator of the extent of engagement in the perceptual experience of the world. It is calculated as the mean of the instant distances, namely the distance between two contiguous Points of Regard.The distance between two contiguous Points of Regards has been calculated as Euclidean distance of the X-Y coordinates of the two corresponding points on the X-Y Cartesian space mapping the field of view. By averaging the instant distance the parameter was normalized with respect to the duration of the experimental session.
2. *Exploration.* The variability of the trajectory of the eye movement during the experimental session over the field of view. This parameter is expected to be indicative of seeking attitude/openness towards the variability of experience, thus a potential indicator of an explorative approach to the perceptual field. For each participant, it was calculated as the complement of the 95th percentile of the distribution of Points of Regards over the field of view. To this end the field of view was divided into 16 quadrants, crossing the X axis and Y axis segmentations in quartiles (the latter defined in relation to the whole sample's set of Point of Regards). Then, for each individual, the relative frequence of Points of Regards over the 16 quadrants was calculated. Accordingly, the 95th percentile of this distribution estimates the proportion of attention that the participant uses in correspondence with his/her most focalized

[44]. Notice that with free head movement, eye movements are inseparable from head movement, as a person rotates his head and moves his eyes to look at particular targets. It is not possible, however, to record head coordinates with this equipment, and therefore only eye movement data is available
[45]. The system automatically classifies some of the data points as Blinks (eye blinks), Fixations (looking at a particular point), and Saccades (movement of eyes between fixations). Each classified event is indexed consecutively, and each classified event encompasses one or more raw gaze positions (rows of data). For example, Participant P04's Right Eye Fixation 6 (6th fixation estimated by the software for right eye) encompasses 43 rows of data, that is, 43 raw data points.
[46]. The system uses built-in algorithm to estimate gaze target separately for both eyes. Raw dataset includes raw gaze position (Point of Regard estimation, one row of data) for two eyes. Events are detected separately for each eye. Accordingly to the prevalent approach, only right eye's movements were analyzed.

quadrant; thus the complement of it is a way for measuring the attention left for the exploration of other areas of the field of view.

In order to attribute participants to the most their representative symbolic universes, a classification function was calculated by means of a discriminant analysis applied on the Danish L1 subsample of the VOC survey (n=779; cf. § 4.3).

6.1.c. Results

The discriminant analysis was able to classify correctly 82,5% of participants (Wilk's lambda=.923 p< 0.000). Consistently with the content symbolic universes, most misclassifications occurred among *ordered universes*, *caring society* and *interpersonal bond*, as well as between *niche of belongingness* and *others' world* (cf. Table 6.1)

Table 6.1. Discriminant Analsis. Classifiction results

Symbolic Universes	*Predicted Group Membership*					
	ordered universe	*Interpers. bond*	*caring society*	*niche of belonging.*	*others' world*	Total
ordered universe	71	20	2	4	1	98
interpersonal bond	15	230	9	17	1	272
caring society	3	15	110	3	1	132
niche of belongingness	4	17	0	180	9	210
others' world	4	0	0	14	49	67
ordered universe	72.4	20.4	2	4.1	1	100
interpersonal bond	5.5	84.6	3.3	6.3	0.4	100
caring society	2.3	11.4	83.3	2.3	0.8	100
niche of belongingness	1.9	8.1	0	85.7	4.3	100
others' world	6	0	0	20.9	73.1	100
82,2% of original grouped cases correctly classified.						

Table 6.2. Fisher's classification functions

	Symbolic Universes				
Items	*ordered universe*	*interpersonal bond*	*caring society*	*niche of belongingness*	*others' world*
RELIABILITY AGENCIES._Public transport	1.407	1.822	2.243	1.686	1.4
RELIABILITY AGENCIES._Health care services	6.827	7.389	8.941	7.128	6.975
RELIABILITY AGENCIES._Police	1.468	1.546	2.358	1.487	1.448
RELIABILITY AGENCIES._Schools	2.538	3.098	4.456	2.684	1.985
RELIABILITY AGENCIES._Public Administration	2.108	2.609	3.279	1.712	0.772
RELIABILITY AGENCIES._Companies	4.489	4.235	5.597	3.962	3.342
PLACE YOU LIVE NEXT 5 YEARS_	4.213	4.377	4.312	3.769	4.235
AGREEMENT_There's little use in writing to public officials because often they aren't really interested in the problems of the average man	3.601	3.094	2.584	3.701	3.941
AGREEMENT_Nowadays a person has to	-0.615	-0.785	-1.072	-0.432	-0.463

live pretty much for today and let tomorrow take care of itself					
AGREEMENT_In spite of what some people say, the lot of the average man is getting worse, not better	4.256	3.683	3.104	4.037	4.195
AGREEMENT_It's hardly fair to bring children into the world, the way things look for the future	1.092	1.375	1.55	1.616	2.493
AGREEMENT_These days a person doesn't really know whom he can count on	2.436	2.426	1.931	3.056	3.591
AGREEMENT_Immigrants are a source of cultural enrichment	2.327	2.241	1.964	2.194	2.06
AGREEMENT_Sometimes one has to break the rules to help one's loved ones	1.583	1.49	1.239	1.715	2.244
AGREEMENT_Those who succeed in life have luck on their side	0.24	0.779	0.783	1.168	1.735
AGREEMENT_People are unable to change	1.255	1.886	1.572	2.177	1.535
AGREEMENT_It is useless to bustle, since you cannot affect what will be	1.051	0.908	0.63	1.493	2.036
AGREEMENT_My life is determined by my own actions	5.01	4.737	4.936	4.709	5.027
AGREEMENT_To a great extent, my life is controlled by accidental happenings	2.893	3.951	3.552	3.997	4.755
AGREEMENT_My life is chiefly controlled by powerful others	0.532	1.026	0.744	1.55	1.363
AGREEMENT_It is not possible at all to make any provision about the future	0.243	0.062	-0.368	1.024	1.295
TO SUCCEED IN LIFE_Understanding the world	1.199	0.857	0.888	0.796	1.197
TO SUCCEED IN LIFE_Acquiring knowledge	7.839	7.182	7.647	6.992	6.598
TO SUCCEED IN LIFE_Adjusting to the main trends	0.386	0.88	0.626	0.811	0.543
TO SUCCEED IN LIFE_Forming alliances with stronger people	1.226	1.984	1.816	2.153	1.949
TO SUCCEED IN LIFE_Having a few scruples	0.511	0.525	0.511	0.692	0.922
TO SUCCEED IN LIFE_Following rules	1.255	1.213	1.296	1.35	1.289
TO SUCCEED IN LIFE_Sharing	1.619	1.118	1.018	1.075	0.532
FUTURE WILL BE_	7.035	6.956	7.173	6.609	5.27
(Constant)	-101.18	-104.359	-119.166	-108.67	-110.944

Table 6.2 reports the Fisher's linear discriminant functions obtained from the Discriminant Analysis and used to classify the 29 participants of the current study. As one can see, the functions encompass all VOC items except those concerning Wellbeing and Determinants of behaviour. These items were not used due to the fact that they adopt a yes/not rather than Likert scale.

Table 6.3 reports the incidence of symbolic universes over the sample. No participants were classified as *interpersonal bond*; only one participant was classified as *others' world* (which meant it was excluded from the statistical analyses).

Given that the assumption of homogeneity of the variance had to be rejected, the comparison of symbolic universes on the two parameters – Activity and Exploration – was carried out by means of non-parametric test. Symbolic universes showed no difference as to Activity; whereas differences resulted statistically significant as to Exploration (Kruskal-Wallis for independent sample test; $p < 0.09$). Post hoc comparisons proved that the difference is due to the fact that *ordered universe* has a higher level of exploration than *niche of belongingness* Tamhane test; $p<0.004$).

On the other hand, as the visual inspection of the level of exploration shows (Figure 6.2) the symbolic universes' level of exploration fully reflects the symbolic universes' approach to the world – symbolic universes characterized by openness and commitment (*ordered universe* and *caring society*) to the world shoed a higher level of exploration than symbolic universes characterized by closedness and passivity (*niche of belongingness* and *others' world*).

Table 6.3. Distribution of symbolic universes over the sample

	F	%
ordered universe	11	37.9
caring society	9	31.0
niche of belongingness	8	27.6
others' world	1	3.4
Total	29	100

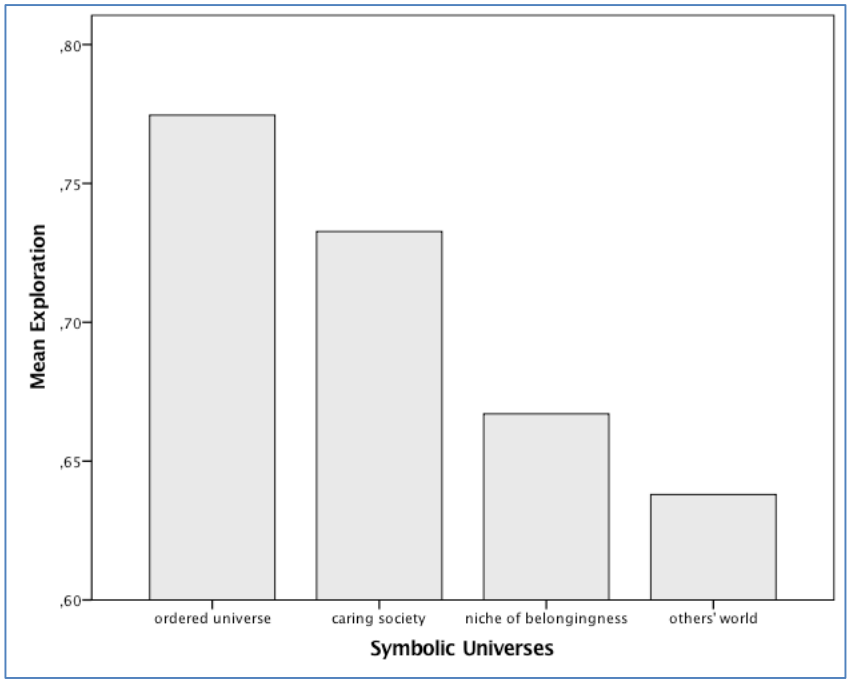


Figure6.2. Level of exploration of the field of view* symbolic universes

6.1.d. Conclusive remarks

The current study has showed how symbolic universes are associated with specific patterns of attention distribution in a visual task involving politically significant stimuli. More specifically, as shown by the fact that Exploration but not Activity was significantly associated with symbolic universes, the role of symbolic universes concerns the structure of the focus of attention, rather than the amount of activity in itself.

This result is important in both its theoretical, methodological and pratical implications. From a theoretical standpoint, it provides fundamental empirical support to the SCPT assumption of the embodied, affect-laden valence of symbolic universes, namely to the idea that symbolic universes are not only cognitive system of beliefs and representations, but, more deeply, modes of life involving forms of bodily activation. At the methodological level, findings support the validity of the VOC questionnaire as a device for detecting the symbolic universes and for classifying further

subjects accordingly (i.e. one has to take into account that participants of the current study were not involved in the original VOC survey; they were classified in a following step, on the basis of the classificatory functions obtained by the post hoc analysis of the VOC survey). Finally, results are relevant in thier practical implications, because they suggest that political communication strategy should be adapted to the recognition of the fact that political messages and more in general meaning-making concerning political issues is affectively rooted and therefore it is guided by subtle nuances that can to prime affective disposition towards issues.

7. PART IV. THE ANALYSIS OF THE SOCIAL REPRESENTATION OF RELEVANT TOPICS

7.1. Aims and framework

7.1.a. Aims

This area of investigation seeks to analyse how the generalized, abstract models of cultural dynamics (i.e. symbolic universes) find expression in the social representations of socially relevant topics (i.e. health, subjectivity, immigrants, participation, homosexuality, Islam).[47] The aim of the analysis is to detect both the content and the semantic structure (i.e. the latent network of linkages among meanings underpinning the contents) characterizing the way the topics investigated are represented in the social sphere.

In so doing, the abstract, generalized map of symbolic universes is completed by the detection of the concrete forms in which these universes are instantiated and manifested in situated representational and discursive contexts. From a complementary standpoint, the anchorage of the specific, situated patterns of meaning-making associated with specific social objects (i.e. the topics) in the generalized map of symbolic universes also enables a deeper understanding of these patterns in terms of their contextualization within the whole cultural milieu. (cf. Report of Malta and Thessaloniki Technical Meetings Annex 3)

Thanks to this, users (e.g. policy makers) will be provided with knowledge that is closer to their experience, more related to their specific domain of interest and competence.

7.1.b. Methodological framework

Consistently with the literature (Bauer & Gaskell, 1999), the research goals were pursued by means of a *multi-object, multi-method and multi-centric approach*: 6 topics were chosen, analysed in different social and geographical contexts – extracted from the Sample L3 of sites (§ 4.3.c), and chosen in order to provide broad coverage of European societies and their cultural specificities - with several methods of cultural and socio-psychological analysis - both qualitative (Denzin & Lincoln, 1994) and quali-quantitative (Lancia, 2005; Veltri, 2011; Veltri, Suerdem, 2013) - applied to a variety of data – i.e. mass-media texts (newspapers) as well as data sourced from interviews and focus groups, and on-line surveys. The use of such an approach aimed at reducing the risk of results being induced by a specific methodology and not depending on topic-specific and/or context-specific aspects.

Topics on which analyses focused are the following:[48]

- Health and Wellbeing (henceforth, health)
- Homosexuality
- Immigration
- Islam
- Participation
- Subjectivity

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[47]. In the framework of Re.Cri.Re. project the term "topic" denotes a specific social object (i.e. health, participation, subjectivity, Islam, homosexuality, immigration).

[48]. It is worth noting that the 6 topics selected result from a slight modification of the initial design as defined in the Proposal. Indeed, according to the proposal, there should have been 9 topics. However, 4 topics were excluded for the following reasons:

- for *Democracy* (Task 3.2a) and *Europe* (Task 3.2b) preliminary analyses on newspapers texts showed that criterion would be able to produce a reliable, valid selection of sources (this is due to the extreme polymorphism of terms linked to this topic in the newspaper articles);

Healthcare was merged with the topic *Health* - this decision was motivated by the recognition of the fact that these two topics are potentially components of the more general topic *Health.*

These topics were chosen due to their relevance for the construction of the identity of individuals and collectives. The representations of these topics are not independent from the way social actors perceive themselves and others and the broad social environment in which they are embedded. As shared representations of relevant social objects, they are built up in social relationships and communicative exchanges; in turn, the latter are built and oriented by the basic socio-symbolic processes comprising the cultural milieu that revolves around the relationship between the Self and the Other.

The analysis of topics was articulated in three related paths.

(a) *Quali-quantitative content analysis of public discourses*. It is aimed at identifying the *semantic structures* underpinning the ways the topics under investigation have been represented in public discourse in European societies for the last decade, mediated by national and local newspapers. The concept of semantic structure involves the same abstract notion of meaning in terms of the variability grounding the SCPT conception of the cultural milieu as field dynamics constituted of lines of semiotic force (cf. § 3). A semantic structure is the set of basic *semantic components* in terms of which a certain object is represented – where such a representation consists of the presence or absence of the properties that those components make pertinent.[49] The difference between a semantic structure and the line of semiotic force is a matter of generalization. Indeed, the former, unlike the latter, concerns a specific representational object.

(b) *Topological analysis of the structure of the representation*. It is aimed at mapping the internal organization of the semantic structure of the social representation of the topic, in terms of the identification of its nucleus and peripheral components. .

(c) *Content analysis of private discourses*. It is aimed at identifying the relation between the semantic structure of the social representation of topics and a variety of social identities (political, national, transnational, etc.) and characteristics of individuals (such as gender, age, and education).

Table 7.1 shows how the three paths of analysis were distributed over the topics[50]

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[49]. The semantic structure grounds and shapes the representational content. To use an analogy with chemistry, each theme can be viewed as made up by the combination of a number of structural components, each of them consisting of a semantic dimension, alike a molecule is composed of a combination of atomic components. To refer to the previous example, the theme "Arabs as terrorists" could result from the combination of semantic components as: |out-group|, and |threat|. It is worth adding that – given the bivalent valence of meaning (§3) any semantic component lends itself to be modelled in terms of a dialectical linkage between two oppositional meanings. Accordingly, to make one of the pole of the component salient means neutralizing the other. For instance, take the semantic component |power| - to represent something as weak means *ipso facto* to claim that it is not powerful. As a result of the oppositional structure of the semantic components, the previous combinatory definition of themes has to be integrated in the following way: any theme is the combination of certain semantic components, each of them made salient in one of its polarities. Thus, to refer to the previous example, |out-group| has to be viewed as the pole of an oppositional structure – say |in-group| vs. |out-group|, just as |threat| can be assumed to be part of the semantic component complemented by an opposing pole, say, |resource|.

[50]. This distribution has three main reasons:

a) it responds to the distribution of competences, scientific interests and availability of resources over the partners involved in the 3.2 Tasks;

b) it is the result of a division of the workload among partners. Indeed, UNILEIC and UNISALENTO implemented the computational operations involved in the procedure of quali-quantitative analysis for the whole set of topics and language (see below, § 7.2.b), in so doing allowing other 3.2. partners to invest in path (b) of analysis;

c) Path (c) of analysis was only marginally implemented within the 3.2 framework, because a similar path was followed within task 3.1.a. More specifically, 2 clusters of items inserted in the online VOC

Though closely related to each other, the three paths of analysis adopt different methodologies and they are therefore presented separately below.

Table 7.1. Distribution of the paths of analysis over the 3.2 tasks

Topics	*Paths*		
	(a) Quali-quantitative content analysis of public discourses	(b) Content analysis of private discourses	(c) Topological analysis of the structure of the representation.
Participation	X		X
Islam	X	X	
Health	X		
Islam	X	X	
Immigration	X	X	
Subjectivity	X	X	

questionnaire concern topics of Wellbeing/Health and Immigration. In so doing, it was possible to concentrate efforts on the further expansion of the domain of topic analysis, involving further countries (Rumania, Turkey, see below, §4).

7.2. Part IV.a. Quali-quantitative content analysis of public discourses[51]

7.2.a. Research goals

The quali-quantitative content analysis of public discourse pursued two main goals.

1) The map of the semantic structures underpinning the way the topic is represented (i.e. discussed, interpreted, connoted)[52].
2) The analysis of the relation between the semantic structures identified and the latent dimension of sense making up the cultural milieu.

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[51]. It has to be highlighted that the analyses reported in this paragraph have followed a road that was slightly different from the one envisaged by the Re.Cri.Re. project and designed at the September 2015 Malta meeting. First, the temporal coverage of analysis was extended in order to include year 2015. This is because Re.Cri.Re. started some months after the starting point expected at the time of the design of the proposal. As a result, the articles published during 2015 have become available.
Second, the datasets do not correspond fully to the universes and the sample schema (see below, § Sample).
Third, and mainly, analyses were unable to adopt the geographical sites as the unit of analysis for bridging synchronic (3.1.a) and diachronic (3.2) analysis. The use of geographical sites as anchor points for linking synchronic and diachronic analysis was taken at the Malta technical meeting, and was aimed at allowing the association between the cultural characteristics of the geographical sites –as esteemed by the 3.1.a task – and local newspapers. However, in many countries local newspapers proved to be unsuitable to be considered expression of the local *doxa* (e.g. in several cases local newspapers shared most of their articles, thus having quite a reduced focalization on local communities). In other cases, the number of local newspapers was low. As a result, a change in the strategy of analysis was adopted. This change was decided at the Thessaloniki technical meeting (June 2016). The new strategy focused on the hermeneutic comparison of the semiotic structures resulting from synchronic and diachronic analyses. On the other hand, on that occasion a substitutive further strategy for bridging 3.1.a-3.2. was established: the use of national newspapers as anchor point. To this end an integration of the VOC questionnaire was implemented with the aim of collecting the individuals' self-esteem of the level of closeness between their standpoint and that expressed by a set of national newspapers (those involved in the topic analysis among them). This was done with the aim of estimating if and to what extent any symbolic universe (as identified in the framework of the VOC survey) tends to be associated preferably with one (or more) newspaper(s). On this basis, given that the ACASM procedure provides the level of association between the newspaper and the semantic structures, it will be possible to estimate, for the transitive property, how symbolic universes are associated with semantic structures. The implementation of this strategy is planned in the period September 2016-February 2017. The fact that this analysis will be performed after the expected WP3 end time will do not affect findings, given that this step of the analysis is aimed at providing a post-hoc validation of the 3.2 qualitative interpretations, specifically as concerns their convergence with the semiotic structures detected by the 3.1 analysis. On the other hand, such further findings will be usable within the context of the following WP aimed at developing and validating the guidelines. Results of this line of analysis will be inserted in the updated version of the current Deliverable.

[52]. To use an analogy with chemistry, each theme can be viewed as made up of the combination of a number of semantic components, just as a molecule is composed of a combination of atomic components. To refer to the previous example, the theme "Arabs as terrorists" could result from the combination of semantic components as: |out-group|, and |threat|. It is worth adding that – given the bivalent valence of meaning (§ 3) any semantic component lends itself to be modelled in terms of a dialectical linkage between two oppositional meanings. Accordingly, to make one of the polarities of the component salient means neutralizing/negating the other. For instance, take the semantic component |power| - to represent something as weak means *ipso facto* to negate that it is powerful. As a result of the oppositional structure of the semantic components, the previous combinatory definition of themes has to be integrated in the following way: any theme is the combination of certain semantic components, *each of them made salient in one of its polarities*. Thus, to refer to the previous example, |out-group| has to be viewed as the polarity of an oppositional structure – say |in-group| vs. |out-group|, just as |threat| can be assumed to be part of the semantic component complemented by an opposed polarity, say, |resource|.

These goals are consistent with the SCPT view of the semantic structure and latent dimensions of sense as generalized, affectively charged, embodied dimensions of meaning (Salvatore & Freda, 2011; Valsiner, 2007) that make up the culture of a certain population. Accordingly, they do not have specific content but assume different contents according to the phenomenical domain where they are activated. This means that a certain semantic structure can be seen as the way a latent dimension of sense is instantiated due to/through the representation of a certain object. For instance, the semantic component |resource| vs. |threat| can be seen as the specific instantiation of the more generalized, affective semiotic structure |friend| vs. |foe| in the context of the representation of the object "Islam"

7.2.b. Method

Unit of analysis

The analysis takes the texts of newspaper articles as its unit of analysis. This choice is motivated by the need to complete the map of the current structure of representations (i.e. synchronic analysis) with the retrospective reconstruction of their evolution (focus of Deliverable 3.3), the latter being one of Re.Cri.Re. project's main purposes (more specifically of WP3). This leads to texts being adopted as a suitable source of knowledge of cultural dynamics. Indeed, texts provide the most practicable way of studying past acts of meaning (which, by definition, are enacted in specific situated, on-going moments of time). In a sense, a text is a "frozen" act of meaning, which happened in the past and still holds its value as the marker of such an act. Accordingly, the analysis of texts is the easiest and most direct way of linking the current state of cultural dynamics and its historical trajectory.

Automated Co-occurrence Analysis for Semantic Mapping (ACASM)

Texts were subjected to an automatized procedure of textual analysis. The use of such a procedure is functional to the large amount of data to be processed and in order to guarantee homogeneous operational criteria, so as to make it possible to compare findings across countries/language domains, topics as well as temporal units.

The automatized textual analysis was carried out using the *Automated Co-occurrence Analysis for Semantic Mapping* (ACASM), a method that previous studies have showed to be able to provide a reliable and valid semantic map of texts (Salvatore et al, 2012, 2015).

ACASM is grounded on the SCPT theoretical and methodological framework and implies the valorisation of abduction as a main strategy of knowledge building in the field of psychosocial phenomena (cf. § 5.2.a).[53] More specifically, ACASM is based on the view of meaning consisting of sign transition. In the case of texts, the sign transition assumes the forms of syntagmatic associations, namely co-occurrences among lexemes within the same contextual units (e.g. a paragraph of the text).[54]

ACASM detects the co-occurrence among lexemes by means of a multidimensional procedure of analysis combining *Correspondence Analysis* (COR) and *Cluster Analysis* (CLA) applied to the

[53]. Indeed, while the representational content – i.e. the themes – can be depicted directly, in terms of its observable manifestations (i.e. in terms of the statements contained in texts), the semantic structures are latent by definition. This is so because the structures work as the condition/premise of thinking, feeling and acting. This has a relevant methodological consequence: the detection of the semantic structures cannot be carried out by means of evidence-based procedures of analysis, but needs a method of inferential reconstruction based on the abductive logic of interpretation of the relationship among units of analysis (Salvatore & Valsiner, 2010).

[54]. It is worth noting that ACASM adopts a group of a few sentences as unit of context (the unit of context is the segment of text within which co-occurrences are detected). This unit of context is narrower than the one adopted by most other methods. ACASM chooses this unit of context in order to make the semantic analysis sensitive to the contingencies of communication – namely, how words tend to be combined with each other in the given temporal unit. (Salvatore et al, 2012).

corpus under investigation. More specifically, the multidimensional procedure is applied to the data matrix composed of the segments into which the text is divided (i.e. paragraphs) as rows, lemmas as columns and presence/absence values in cells (see below, sub-paragraph "Procedure and operative parameters).
The procedure is implemented by means of T-LAB software (www.t-lab.com). The version used in this analysis was 16-Plus).[55]

Table 7.2. Domain of analysis

Topic	*Country*							*Tot*
	CYP	GR	ITA	MAL	ROM	TUR	UK	
Health	0	1	1	1*	1	0	1	5
Participation	0	1	1	1*	0	0	0	3
Subjectivity	0	1	1	1*	0	0	1*	4
Islam	0	1	1	1	1	0	1	5
Homosexuality	1	1	1	1	1	0	1	6
Immigration	1	1	1	1	1	1*	1	7
Total N. of analyses	2	6	6	6	4	1	5	30

*Result not reported in the current version of the report

Domain of analysis
Thirty separate parallel procedures of automatized textual analysis were designed,[56]. Each procedure was implemented on a country*topic combination. The analyses covered 7 countries (Cyprus, Italy, Greece, Malta, Rumania, Turkey, UK), corresponding to 5 languages (English, Greek, Italian, Rumanian, Turkish) (cf. Table 7.2). All procedures adopted the same computational criteria, in order to make them comparable with each other.[57] Moreover, for some of topic*language combinations, the analysis was repeated for each of the 5 two-year sub-corpora, in order to analyse the temporal (in)stability of the semantic structures (see Deliverable 3.3).

Universes and Samples
Each of the 29 ACASM procedures of textual analysis was carried out on a corpus comprising a sample of articles extracted from the universe of relevant articles (i.e. articles on the topic under analysis) published within the time period considered: 2000-2015.
Each universe was defined by means of the following procedure.
1) A set of newspapers as sources was selected for each country.

[55]. Special thanks to Dr. Franco Lancia, the developer and producer of T-LAB software for the kind, generous and competent support to the calibration of T-LAB procedures in order to fit them with the requirements involved in the rather special goals pursued by the topic analysis.
[56]. All analyses were performed in accordance to the ACASM method, but the analysis on the Turkish domain that has followed a different – even if comparable – set of criteria in the definition of the universe and sample as well as the data analysis. The Turkish analysis was performed on one topic (Immigration) by an independent researcher (Prof. Ahmet Suadet) and was used to control the independence of results from the method adopted. The results of this analysis will be added to the revised version of this Deliverable. Preliminary results are reported in Annex 5.
[57]. It is worth highlighting that the domain of analysis is more extended with regard to the one defined initially by the Re.Cri,Re project. This is due to the involvement of two researchers (prof. Alina Pop, University of Christian University "Dimitrie Cantemir" of Bucharest, Rumania and Prof. Ahmet Suadet, Bilgi University, Turkey). This contribution involved no financial impact on the project. Further analyses are being planned for France, with the involvement of Marseilles University (partner of the Re.Cri.Re. Consortium) Currently they are on making. Findings will be integrated in the scientific publications planned in the framework of WP7 – Dissemination.

Given that the analysis required texts in electronic format, the sources had to be chosen based on the availability of - and willingness to allow - access to the electronic archives of articles published over the period 2000-2015.
The selection was made so as to include newspapers of different political orientations as well as both national and local newspapers.
The set of newspapers did not change over the topics within the same country.
Table 7.3 reports the number of newspapers selected. 64 newspapers (20 national and 44 local) over 6 countries were chosen. According to the research design (cf. Table 7.4), each country was expected to be represented by 4 national (2 left-oriented and 2 right oriented) and 15-20 local newspapers. (This was done in order to take into account the way the topic is addressed both locally and at the level of general public opinion, as reflected in national newspapers).
It must be noticed, however, that in most countries such distribution was only approximate, due the unavailability of sources.

Table 7.3. Newspapers composing the universes of ACASM analyses

Country	*Newspapers*				*Tot*
	Left-oriented	Right-oriented	Centre-oriented	Local	
CYP	1	1	2	0	4
GR	2	2	0	8	12
ITA	2	2	0	15	19
MAL	0	0	0	3	3
ROM	2	2	0	0	4
UK	2	2	0	18	22
Tot	9	9	2	44	64

2) A set of keywords was identified in order to establish the relevance of the articles, namely those whose main focus concerned the topic under analysis. The keywords used were those that provided a high probability of selecting relevant articles– both alone or in one or more of their combinations; indeed, even words associated with the topic directly may be included in texts that have nothing to do with the topic (e.g. "migration" can occur in an article dealing with bird migration).
In order to identify keywords (and their combinations) endowed with discriminative validity, a series of preliminary analyses of the word frequency and co-occurrences associated with topics was performed.[58] On the basis of the preliminary analyses, a set of English keywords and their combinations was decided upon.[59]
Once set, the English keywords were translated into the other languages – and where needed adjusted to the specificity of the linguistic context and modalities of access to dataset– by the local research teams. Annex 4 reports the lists of keywords used for establishing the universe of each analysis.

[58]. Preliminary analyses have been carried out by ULEIC on a convenience sample of articles extracted from English newspapers. (The choice of focusing the preliminary analyses on English linguistic domain was due to the immediate availability, accessibility and validity of data). Annex 4 reports the output of the analysis.
[59]. This process involved ULEIC, the topic teams and the scientific coordinator. As a result of the preliminary analyses it was decided to merge the topics Wellbeing and Health, initially assumed as separated (see Malta reports).

Finally, for each country*topic combination, the relevant list of keywords was applied to the set of newspapers. As a result, 29 country and topic universes of relevant articles were established.

3) For each universe, articles were selected randomly in accordance to the sample schema reported in Table 5.4. The schema is based on the criterion of the maximum variability (§ 4.3.c)- it seeks to form a balanced distribution of articles in terms of source (newspapers) and time of publication (time block).
To this end, the whole time period 2000-2015 was segmented in five 2-year blocks - 2000-01; 2004-2005; 2008-209 2011-12; 2014-15. The number of articles for cells concerning national newspapers (10 and 37, respectively) was higher in order to balance the whole number of local vs. national articles.
In sum, for each country and each topic the whole (ideal) sample was designed to be comprised of 1490 articles, 750 from local newspaper(s) (in turn divided into five 2-year blocks) and 740 from 4 national newspapers/magazines (distributed homogeneously over the same 5 time blocks).

Table 7.4. Sample schema

	Time blocks					
	2.000-01	2.004-5	2.008-9	2011-2012	2014-15	*Tot*
Local newspaper(s) Site 1	10	10	10	10	10	50
Local newspaper(s) Site 2	10	10	10	10	10	50
Local newspaper(s) Site 3	10	10	10	10	10	50
Local newspaper(s) Site 4	10	10	10	10	10	50
Local newspaper(s) Site 5	10	10	10	10	10	50
Local newspaper(s) Site 6	10	10	10	10	10	50
Local newspaper(s) Site 7	10	10	10	10	10	50
Local newspaper(s) Site 8	10	10	10	10	10	50
Local newspaper(s) Site 9	10	10	10	10	10	50
Local newspaper(s) Site 10	10	10	10	10	10	50
Local newspaper(s) Site 11	10	10	10	10	10	50
Local newspaper(s) Site 12	10	10	10	10	10	50
Local newspaper(s) Site 13	10	10	10	10	10	50
Local newspaper(s) Site 14	10	10	10	10	10	50
Local newspaper(s) Site 15	10	10	10	10	10	50
Left orien. National newsp.	37	37	37	37	37	185
Left orien. National newsp.	37	37	37	37	37	185
Right orien. National newsp.	37	37	37	37	37	185
Right orien. National newsp.	37	37	37	37	37	185
Tot						1490

Table 7.5 depicts the samples of articles resulting from the procedures of sampling.
For each *ij-th* cell of the source*temporal block sample matrix, the designated number of articles were selected randomly from all those that were included in the universe and had the *i-th* (i.e. source) and *j-th* (temporal block) pertinent characteristics. However, in many cases the number of articles available was lower than the one in the sample schema design. In those cases all the articles of the universe were included in the sample.

Table 7.5. Selected articles x newspapers

		Topics						
	Blocks	*Health*	*Subjectivity*	*Homosexuality*	*Islam*	*Immigration*	*Participation*	Tot

Country								
CYP	2000-2001	0	0	0	0	0	0	0
	2004-2005	0	0	0	0	0	0	0
	2008-2009	0	0	0	0	0	0	0
	2011-2012	0	0	99	0	149	0	248
	2014-2015	0	0	107	0	152	0	259
	Tot	0	0	206	0	301	0	507
GR	2000-2001	111	101	89	111	111	111	634
	2004-2005	128	122	105	115	122	121	713
	2008-2009	168	162	147	137	162	137	913
	2011-2012	207	180	133	172	2.00	165	1057
	2014-2015	228	210	206	193	238	223	1298
	Tot	842	775	680	728	833	757	4615
ITA	2000-2001	129	84	125	111	114	119	682
	2004-2005	248	96	148	167	164	174	997
	2008-2009	296	80	190	193	205	202	1166
	2011-2012	301	86	258	270	283	290	1488
	2014-2015	280	112	293	288	276	282	1531
	Tot	1254	458	1014	1029	1042	1067	5864
MAL	2000-2001	10	10	10	10	10	10	60
	2004-2005	10	10	10	10	10	10	60
	2008-2009	10	10	10	10	10	10	60
	2011-2012	17	22	16	25	18	19	117
	2014-2015	26	30	30	30	26	30	172
	Tot	73	82	76	85	74	79	469
ROM	2000-2001	0	0	0	0	0	0	0
	2004-2005	0	0	0	0	0	0	0
	2008-2009	66	0	23	29	30	0	148
	2011-2012	38	0	38	35	34	0	145
	2014-2015	37	0	38	37	37	0	149
	Tot	141	0	99	101	101	0	442
UK	2000-2001	258	255	249	250	250	258	1262
	2004-2005	268	268	259	267	268	268	1330
	2008-2009	278	278	267	273	232	278	1328
	2011-2012	267	278	278	246	259	267	1328
	2014-2015	279	278	278	275	278	279	1388
	Tot	1350	1357	1331	1311	1287	1350	6636

When it was not possible to collect the planned number of articles from local newspapers, the number of articles from national sources was reduced accordingly, in order to keep the equivalence between national and local sub-corpora.
Taken as a whole, the 29 analysis processed about 20,000 articles over a period of 16 years.
As can be seen from the comparison of Table 7.4 and Table 7.5, in most cases the actual sampling was smaller than the one designed by the sample schema. This is because in several countries it was only possible to get access to a smaller number of newspapers.

Organization

The procedures of textual analysis were based on an organization defined by three interacting functions (that may or may not have been implemented by the same partners).

A) the *central desk* was in charge of the implementation of the automatized analyses (sampling parameters, implementation of key words, pre-processing, editing of outputs).
B) Each *topic team* had the responsibility of the analyses related to the topic of pertinence. This comprises the identification of key words and other topic-specific parameters as well as leading the activity aimed at the scientific exploitation of findings. Topic teams correspond to the partners leading tasks 3.2.a-e as designed by the Re.Cri.Re. project.
C) The *country teams* were responsible for identifying the sources (newspapers) and retrieving data from archives for all topics in the local language. Moreover, they supplied the topic team with linguistic and cultural advice during interpretation of output.

Procedure and operative parameters

Each ACASM procedure of analysis was implemented with the support of T-LAB software, in accordance to the following operative procedure.

A) Construction of the digital representation of the corpus

The first step is aimed at transforming the corpus (i.e. the set of texts sampled from the universe defined by a certain combination of country*topic) into a matrix of digital data that can be subjected to multidimensional analyses. In a nutshell, this procedure builds a matrix composed of segments of text as rows, lemmas as columns. Each *ij-th* cell holds the information as to the presence (1) or absence (0) of the *j-th* lemma within the *i-th* segment.

Thus, the building of the digital matrix involves three connected tasks: the segmentation of the text, the lemmatization of lexical forms and the selection of the lemmas to use for the multidimensional analyses. These three sub-tasks were performed following – with marginal modifications[60] – the procedure defined by ACASM

A1. Segmentation

The first sub-task is the division of the corpus into units of analysis, each of them called *elementary context unit* (ECU). An ECU consists of a group of a few contiguous utterances.

The division of the text into ECUs has to find a point of equilibrium between two requirements dialectically linked to each other: interpretability and specificity. On the one hand, the segments have to be long enough to be interpretable in terms of thematic content. On the other hand, the longer the segments are, the greater the likelihood that each segment may not be associated with a specific thematic content.

Accordingly, the corpus was segmented adopting the paragraph as parameter of segmentation. The paragraph is the longest unit of analysis allowed by the T-LAB automatized algorithm of segmentation. According to this algorithm: (a) each ECU begins with the character just subsequent to the last character of the previous ECU; (b) each ECU ends with the first punctuation mark (‘‘.’’, or ‘‘!’’, or ‘‘?’’) and the return key; (c) at any rate the ECU’s length must not be more than 2000 characters; therefore, the ECU in any case ends with the last word remaining within this limit, even if no punctuation mark has occurred.

A.2. Lemmatization

[60]. The modifications were due to the fact that the ACASM criteria were defined consistently with the aim of analysing texts consisting of verbatim transcripts of interpersonal communicational exchange (Salvatore et al, 2012).

Lemmatization is aimed at reducing the lexical variability of the corpus, in order to make it suitable for multidimensional analysis, which requires a reduction in the dispersion of the data matrix.
This is performed using the following procedure. All lexical forms present in the text are collected (a lexical form is a string of characters comprised between two empty spaces; thus, in most cases a lexical form corresponds to a word, especially in the case of written text). Then, each of them is categorized according to the lemma it belongs to. A lemma is the citation form (namely the headword) used in the language dictionary to refer to a lexeme (i.e., a set of word forms having the same lexical root and meaning). For example, word forms such as ‘‘ go’’, ‘‘ goes’’, ‘‘ going’’ and ‘‘ went’’ have ‘‘ go’’ as their lemma; ‘‘ child’’ and ‘‘ children’’ have ‘‘ child’’ as their lemma.
The output of this sub-step is the list of lemmas present in the textual corpus.
Lemmatization of corpora written in Italian and English was performed by means of the vocabulary provided by T-LAB. Lemmatization of and Greek and Rumanian-written corpora was performed by means of a vocabulary built ad hoc by the language teams. The building of the Greek and Rumanian vocabulary adopted the following procedure, performed separately for the two languages by the respective language teams.

1) The whole set of lexical forms composing the corpora in that language – e.g. for Rumanian, the topics Immigration, Islam, health, homosexuality; for Greek: the 6 topics sourced from the Greek newspapers and 2 topics sourced from Cyprian newspapers – were singled out. This was made by means of the automatized procedure performed by T-LAB whose output is the list of the lexical units and the corresponding occurrences. The Rumanian list of lexical forms comprised 35,251 units; the Greek list comprised 162,678
2) Each lexical form in analysis was categorized according to its lemma. This was done according to the following criteria: i) any syntactic category was lemmatized separately. This means that the lemmatization kept the distinction between verbs, adverbs, adjectives and nouns even when there was similarity among lemmas (e.g. considering the English, “driven”, “drove” and “driving” were lemmatized as “to drive” but “drivers” and “driver” were lemmatized as “driver”)

A.3. Selection of lemmas
The list of lemmas resulting from the previous step was subjected to selection, in order to exclude lemmas that are not useful for the analysis. More specifically, the exclusion concerned:
a) stop-words, instrumental, empty and indexical words (e.g. – giving an English example: “namely”, “indeed”, “and”, “this”), that is, words without specific semantic content (the exclusion of these words was performed by means of the automatic application of T-LAB list of stop-words with the following refining control by the language team);
b) basic auxiliary verbs (i.e. to be and to have);
c) the 5 lemmas with the highest frequency (this is so because the more frequent the lemma, the less it helps to detect specific semiotic patterns (namely, the more it acts just as noise).

After having implemented these criteria, the 1,000 most frequent lemmas were selected. The definition of lists of lemmas composed of the same number of items (n=1,000) responds to a requirement and a goal – a) T-LAB is able to implement the procedure of correspondence analysis if the data matrix does not exceed a certain number of columns; b) the definition of a single number of lemmas makes the structures of data more comparable across analyses. On the other hand, n=1,000 guarantees a large enough extension for the analysis to reduce the risk of a biased selection.

B) Multidimensional analysis
The digital matrix resulting from step A is subjected to a multidimensional procedure of data analysis, aimed at mapping the patterns of co-occurring lexemes that characterize the corpus . This procedure consists of the combination of Correspondence Analysis (COR) and Cluster Analysis

(CA). For each of the 29 country*topic combinations, the procedure was implemented both on the whole data matrix and on each sub-corpus corresponding to the articles published within one 2-year block.
Correspondence Analysis. The COR is aimed at detecting the semantic structures in terms of which the textual corpus can be modelled. From a computational standpoint, the COR breaks down and reorganizes the relations between lexemes in terms of a multidimensional structure of opposed factorial polarities; where each polarity is characterized by a set of signs that tend to co-occur and do not occur in the event of the occurrence of an opposite set. Accordingly, this structure can be interpreted as the operationalization of the semantic structure of the topic, with any factorial dimension to be seen as a marker of a semantic component of this structure.
It is worth adding that the COR allows for the representation of any further variable on the factorial dimensions extracted from the data matrix. Such variables are called *illustrative*, because they do not contribute to the definition of the multidimensional space, but are associated with the factor dimensions once they are defined. Accordingly, the relation of semantic structures with characteristics of segments and articles (e.g. the year of publication, the newspapers where they are published) can be assessed.

Cluster analysis. The CA is designed to extrapolate clusters of lexemes that tend to co-occur within the same segments of texts. Thus, each cluster aggregates a set of segments (i.e. paragraphs) that tend to be similar to each other because they are made up of similar lexemes. Accordingly, each cluster of co-occurring lexemes (and of the segments where the co-occurrence happens) can be interpreted as the marker of a specific semantic content - a *theme.* In other words, the co-occurrence of words is taken as a criterion of similarity for clustering the units of text; that is, the units of analysis are clustered in accordance with the co-occurring words within them: units of text containing the same co-occurring words are considered similar and therefore grouped. The rationale is that a set of co-occurring words marks a specific theme (see below, point C4). Therefore, units having a certain set of co-occurring words in common share the thematic content marked by such a set. In this way, the procedure of content analysis is able to provide a fine level of semantic representation, coding each unit of analysis in terms of a specific content, which is marked by the set of co-occurring words according to which the unit was clustered.[61]
Moreover, clusters can be projected on the semantic structure, namely on the network of *in absentia* linkages among signs mapped by the Correspondence Analysis, in order to complete their interpretation in terms of their reciprocal positions on the semantic structure.

Main output of the multidimensional procedure of data analysis
Each procedure of multidimensional analysis was designed to produce the following main outputs.

1. The 3 main factorial dimensions extracted by the Correspondence Analysis and mapping the semantic organization of the corpus. According to the ACASM framework, each main factorial dimension is conceived as the marker of a component of the semantic structure. For each factor there is the list of lexemes that have the highest association with it (separately for both polarities). The degree of association is measured in terms of V-Test (based on z distribution) – the higher it is, the higher the lexeme-factor association, therefore the more relevant the lexeme in the interpretation of the factor.[62]

[61]. . From a theoretical point of view, the reference to co-occurrence of words within the same unit of analysis can be considered a way of taking into account the linguistic level of the contextuality of meaning, namely the level consisting of the way the words are combined within the text (Salvatore et al, p. 2012, p. 3).
[62]. A further output of the Correspondence Analysis is the proportion of inertia (the parameter measuring the lexical variability) associated with each factorial dimension extracted. The higher the inertia the more the lexical variability the factor describes, therefore its relevance. This output is not considered in the current analysis; it was used for the sake of diachronic analysis (see Deliverable 3.3).

2. The factorial scores of the main characteristics of the articles - a) type of newspapers (local vs. national newspapers); newspaper's political orientation (right, left, centre, local); year of publication. Such characteristics are introduced into the analysis as illustrative variable. In order to facilitate the analysis of the association between factors and characteristics, this output is also provided in geometrical format – i.e. characteristics are considered as points of the factorial space with factorial scores as coordinates,
3. The description of the clusters extracted by the Cluster Analysis. According to the ACASM framework, each cluster is intended as the marker of a corresponding theme in terms of which a way of representing the topic is enacted. For each theme, the list of the lexemes and segments of texts that are more representative of it is provided, together with statistics assessing the degree of representativeness (V-Test)
4. The factorial scores of the themes produced by output 3 (the factorial scores for each cluster are taken from the factorial scores of the units that are part of that cluster). Thus, each cluster comes to be considered as an illustrative variable. This output is provided in geometrical format, projecting the clusters on the factorial space. The resulting position of clusters on the factorial space depicts the relations of similarity-dissimilarity among themes.

C) Interpretation
Outputs 1-4 of each analysis are subjected to a 2-step interpretation.

C1. Interpretation of the semantic structure (Step 1)
This step concerns output 1. ACASM views each main factorial dimension as the marker of a component of the semantic structure underpinning the representation of the topic. Accordingly, this first step of interpretation is aimed at detecting the semantic structure shaping the way the topic under investigation is represented within a certain country. The output of this step is the definition of the core meaning and the labels describing the 3 main factorial dimensions produced by each Correspondence Analysis.
To this end, the interpretation of the factorial dimensions is abductively reconstructed in accordance to the opposition between the two factorial polarities. Due to this, by definition the interpretation is not a matter of composing the information held in each polarity. Rather, it is performed in terms of the information provided by the combination of the *in-praesentia* relationships (i.e. the pattern of co-occurring lemmas associated with one polarity) and *in-absentia* relationships (i.e. the oppositional bond with the pattern associated with the other polarity). It is in the information provided by this combination that we find the specificity of abductive levels of analysis: the factorial dimension is interpreted not in terms of the content of the pattern of co-occurring lemmas (i.e. the set of co-occurring lexemes associated with one polarity), but in terms of the component of sense that corresponds to the fact that the enactment of that pattern of lemmas is the instantiation of a specific network of *in absentia* relationship among lemmas.[63]
The interpretation of the factorial dimensions in terms of components of the semantic structure has focused on the lemmas (about 15-20) having the highest level of association with each factorial polarity.
The interpretations was made by a team of 3 expert judges, through a consensual procedure.

C2. Meta-analysis (Step 2)
The outputs of step 1 of the whole set of analyses (i.e. the interpretations of the factorial dimensions of all analyses) was subjected to a qualitative meta-analysis, aimed at assessing the

[63]. For instance, take the pattern "1, 2, 3, 4". Despite its invariant content, its sense is different if it is opposed to the pattern "4, 3, 2, 1" or to the pattern "A, B, C, D". In the former case its sense is: |an increasing sequence|, in the latter: |numbers|. These are two different spheres of sense, each of them magnifying an area of the semantic content of the pattern.

level of generalization of the semantic structures across topics and countries and in so doing checking to what extent (some of) the components of the semantic structure can be viewed as local instantiation of the 3 latent dimensions of sense mapped in the framework of the analyses of symbolic universes (cf. § 4). Such a linkage between the two levels of analysis – the map of the cultural milieu and the topic analysis - enables a better reciprocal understanding of both: on the one hand, it allows us to understand how the lines of semiotic force instantiated themselves in situated forms of speech and representation; on the other hand, it allows us to appreciate these forms as the local enactment of more general dynamics of sensemaking, namely those that characterize the cultural milieu.
The meta-analytic interpretation was carried out by a team of 3 judges on the basis of a consensual procedure. Inter-agreement analysis was used for testing reliability of the interpretations. To this end, 5 independent, blind judges were asked to repeat the interpretations and their outputs were compared with the original one.
The meta-analysis adopted the methodological tenet of the promotion of abstractive generalization through the maximization of variability (Salvatore, 2014). Accordingly, the meta-analysis is not aimed at identifying the similarity in content among semantic components concerning different topics and countries, but at defining generalized, abstract, cross-domain patterns of oppositional significance that could re-interpret the semantic components in order to grasp their basic, essential meaning. More particularly, it must be noticed that, consistently with the purpose of the analysis, it is performed in terms of a *theory-driven classification* – namely it takes the lines of semiotic force as general classes and analyzes the semantic components in terms of whether - and if so, in what respect - each of them can be classified as a specimen of one of the general classes.

7.2.c. Results

Interpretation of the semantic structures

For each of the six topics relevant to the European identity (health, participation, subjectivity, Islam, homosexuality, immigration) the interpretation of the first three reliable factors[64] extracted through the correspondence analysis is briefly presented, and data compared across countries. (the statistical outputs of the CA are reported in Annex 6).

Topic 1. Health

Newspaper articles on health were collected in Greece, Italy, Malta, Rumania, and the UK. However, the current outputs of the analyses performed on the Maltese dataset are unclear and

[64]. By reliability here we mean the factor's capacity to discriminate among lexemes. Accordingly, a non-reliable factor is that which is not associated with lexemes (this can happen, for instance, when one factor is heavily affected by the asymmetrical distribution of one very frequent lexeme). Reliability must not be confused with the validity of the factor, namely with the fact that the lexemes that are associated with it can be interpreted as the marker of a meaningful semantic component. In the context of the discussion of results, non valid factors have been signalled as "unclear". This may be due to the presence within the corpus of a non marginal subset of texts adopting to a large extent the same lexemes in order to refer to a certain fact (e.g. a certain episode occurred), lexemes that however are also used by other subsets of the text. Consequently, the linkages among the terms of the subset are dominant in shaping the factor; yet the factor does not reflect these linkage exclusively, but also other connections among the lexemes that express contexts of discourse (i.e. the context concerning texts not included in the subset). This is reflected in the fact that the factor is characterized by co-occurrences among lexemes lacking semantic consistency. This circumstance is favoured by the limited size of the corpus; and this may be why it occurred mainly in the case of Malta's analyses.

difficult to interpret, and hence these data are provisionally omitted in the current version of the Deliverable.

Greece

Factor 1. *Health policy vs. Illness*. The first factor opposes health policy (*insurance, expense, public, service, cut, ministry, pension, budget*) to health referred to as physical illness (*symptom, cancer, blood, brain, disease, diabetes*), connected to risk factors (*risk, cause*) and medical research (*researcher, cell*).

Factor 2. *Economic constraints vs. Proactive action*. Economic factors and economic constraints are at the forefront on one polarity (*euro, reduction, tax, expense, increase, income, billon, price*), while on the other polarity the proactive actions of the individuals/citizens – but also of the political actors (*MP, president, political party, Syriza*) – are highlighted (see verbs such as *say, want, do, know, write, listen, ask, see, place*).

Factor 3. *Economic regulation vs. Functioning of services*. The third factor opposes general economic aspects (*euro, tax, income, billion, expense, price, reduction, profit, VAT*) that regulate the healthcare system to the practical functioning of the system itself (*hospital, center, patient, doctor, clinic, medical, unit, treatment, service*).

Italy

Factor 1. *Illness vs. Healthcare system*. On one polarity, health is referred to as the physical state of the body, as the absence of diseases or illnesses (*illness, tumor, cancer, obesity, infection*), and connected to health behaviours (*nutrition, diet, consumption*) and risk factors (*alcohol, age*). On the other polarity, health is put in the context of the national healthcare system (*hospital, local health units, services, treatment, payment system*), which is region-based and run by the regional administrations (*local administration, regional government, candidate, governor*).

Factor 2. *Functioning of services vs. Political regulation*. The second factor opposes the practical functioning of the local health units (*hospital, emergency room, bed, ward, facility, services, regional*) to the political national regulation of health, i.e., to the Parliamentary debate on health issues (*Democratic Party, law, ban, Chamber of Deputies, Senate, Parliament, guidelines*), and specifically to the political debate on assisted reproduction (*couple, embryo, insemination, heterologous, abortion, technique*).

Factor 3. *Control vs. Guarantee.* On one polarity health is addressed in normative terms, as a domain under constraints and controls (*NAS, AIFA, law, authorize*), where violations of the law can occur (*police, prosecutor, investigation, lawyer, verdict*). On the other polarity health is framed in terms of the welfare system (*resources, services, quality, assistance, country, public, treatment*), which is planned to provide services to the population (*population, citizens, poor, rich, social*) and to guarantee the access to services and health rights.

Rumania

F1. *Illness vs. Healthcare system*. One pole of the factor health is associated to the description of different illnesses, their manifestation and causes (*disease, organism, pain, infection, body, symptom, skin, blood, bacteria*). On the opposite pole health is put in the context of the health insurance system (precisely the new regulations regarding the introduction of the healthcare card) (*card, insurance, national, service, provider, contract, contribution, system, pay*).

F2. *Personal stories vs. Lifestyles*. The second factor opposes the stories of single individuals dealing with illness (*life, illness, young, child, sick, personality*) to the description of products

(cosmetics or food: *cosmetics, shampoo, egg, fruit, salt, cream, water*) whose properties can be either beneficial or risky for human consumption (*substance, vitamin, allergic, mineral, acid*).

F3. Unclear.

UK

Factor 1. *Lifestyles vs. Healthcare system*. On one polarity, this factor represents health as related to the individuals' lifestyles, especially those concerning food and eating habits (*sauce, cook, fry, oil, salt, vegetable, chicken, fresh, egg, fruit*). On the other polarity, health is put in the context of the national healthcare system (*NHS, patient, hospital, nurse, doctor, drug, service*) and the related health policy (*Labour, government, party, fund, minister election, policy, campaign, leader*).

Factor 2. *Personal stories vs. Health economics*. The second factor opposes the stories and the feelings of the individuals and their families dealing with illness and death (*marry, friend, daughter, love, mother, son, die, funeral, father, miss, life, sadly, pass away*) to the economics of health, health industry, and investments (*company, market, increase, growth, price, rate, share, sale, cost, investment, tax, product*).

Factor 3. *Politics vs. Medicine*. The third factor presents an opposition between the general politics (*party, Labour, Obama, election, leader, Clinton, minister, lib, dem, tory, win, president*) and the medical approach to health (*patient, treatment, drug, hospital doctor, diagnose, prevent, symptom*), focused on physical aspects (*breast, blood, brain, liver, heart, cell*) and illnesses (*cancer, disease, survival, die*).

Table 7.6. Health – Factor 1, 2, and 3 per country

Factor	*Country*			
	Greece	Italy	Rumania	UK
F1	*Health policy vs. Illness**	*Illness vs. Healthcare system**	*Illness vs. Healthcare system**	*Lifestyles vs. Healthcare system**
F2	*Economic constraints vs. Proactive action*	*Functioning of services vs. Political regulation*§	*Personal stories vs. Lifestyles*	*Personal stories vs. Health economics*
F3	*Economic regulation vs. Functioning of services*§	*Control vs. Guarantee*	-	*Politics vs. Medicine*§

Factors whose interpretations are similar across countries are shown in the same colour and marked with the same symbol

Synoptic chart

Table 7.6 reports the synoptic chart of the semantic structures characterizing each country-specific analysis.

Though characterized by local specificities, these structures present relevant elements of similarity. The opposition between individual (being concerned with illness or lifestyles) and systemic anchorage characterizes the first dimension of the semantic structure of all analyses. Moreover, in 3 (Italy, Greece and UK) out of 4 countries the contrast between the management of activities (whether concerning the facilities, as in Greece and Italy, or the medical action, as in the UK) and (political or economic) regulative aims – the opposition between how/what-to-do and why/what-to-do-it-for is salient

Topic 2. Participation

Newspaper articles on participation were collected in Greece, Italy, and Malta. However, the current outputs of the analyses performed on the Maltese dataset are unclear and difficult to interpret, and hence these data are provisionally omitted in this report.

Greece

Factor 1. *Societal vs. Political dynamics*. The first factors opposes a general societal dynamics, in which the social, civic, cultural, economic, political, and institutional aspects are interwoven (*social, development, state, society, market, economy, economic, social class, unemployment, occupation*), with the specific dynamics of local/national politics, mainly accounted for by the electoral and voting mechanisms, i.e., institutional politics (*election, Pasok, vote, Syriza, abstention, ND, percentage, voter, ballot*).

Factor 2. *Disorder vs. Order*. On one polarity, participation is related to conflict, revolution, war, and in general to abrupt social change (*revolution, power, worker, fight, radical, socialist, communist*). On the other polarity, participation is related to institutions of different types: political, educational, social institutions, which embody the current organized structure of society, its current order (*school, municipal, infrastructure, professor, hospital, administration, legal, public, private, sector*).

Factor 3. *Political practice vs. Political-economic system*. One side of the factor refers to grassroots activism in the education field (*school, pupil, movement, university, association, professor, struggle*), while the other side focuses on the Greek and European political-economical system (*European*, *decrease, increase, billion, euro, debt, state, vote, system, electoral*).

Italy

Factor 1. *Societal vs. Political dynamics*. The lexemes contributing to one polarity basically describe a general societal dynamics, in which the social, civic, cultural, economic, political, and institutional aspects are interwoven (*rights, society, development, economical, cultural, world, citizenship, voluntary, globalization, community, market*). On the other polarity, participation in embedded in the specific dynamic of local/national politics, mainly accounted for by the electoral and voting mechanisms, i.e., the institutional politics (*candidate, primary elections, vote, voter turnout, elections, ballot box*).

Factor 2. *Institutional participation vs. Protest*. The second factor opposes the institutional forms of participation and the political institutional dynamics occurring at the national or local level (*parties, voters, electoral, democratic, political, power, representative, election, majority, candidate*) to protest, demonstration, and mobilization, which characterize the extra- or anti-institutional forms of politics (*demonstration, student, march, police, protest, street, strike*).

Factor 3. *Policy vs. Politics*. One side of the factor revolves around the political institutional debate that deals with issues that affect the life of people, specifically health issues (*candidate, healthcare, income, health system, Chamber of Deputies, parliamentary, services, reduce, guarantee*), that is policies. The opposite side refers to the general dynamics of politics, either inside or outside the institutions (*Berlusconi, demonstration, left, ballot, right, nonvoting, party, leader, protest, vote*).

Synoptic chart

Table 7.7 reports the synoptic chart of the semantic structures characterizing the two country-specific analyses. Though characterized by local specificities (in Greece the valence of the conflict seems more vivid and generalized), the structures present significant similarities. More specifically, the similarities concern the first and second factorial dimensions: in the first case there is the opposition that polarizes social life and its systemic dimension versus the political and institutional

machine, with the electoral procedures in the foreground; in the second case, the polarization between the connotation of participation as a conflictive act versus participation as a contribution to the current state of affairs.

Table 7.7. Participation – Factor 1, 2, and 3 per country

Factor	*Country*	
	Greece	Italy
F1	*Societal vs. Political dynamics*	*Societal vs. Political dynamics*
F2	*Disorder vs. Order*§	*Institutional participation vs. Protest*§
F3	*Political practice vs. Political-economic system*	*Policy vs. Politics*

Factors whose interpretations are similar across countries are shown in the same colour and marked with the same symbol

Topic 3. Subjectivity

Newspaper articles on subjectivity were collected in Greece, Malta, Italy, and the UK. However, the current outputs of the analyses performed on the Maltese and the UK datasets are unclear and difficult to interpret, and hence these data are provisionally omitted in this report.

Greece

Factor 1. *Political vs. Artistic subjectivity*. This factor captures the opposition between the political subjectivity embodied by a Marxist view of society (*struggle, class, KKE, capitalist, socialist*) and artistic subjectivity in theatre, music, cinema (*music, performance, theatre, film, song, actor, stage direction, scene, play*).

Factor 2. *Radical vs. Consensual political identity*. Both the polarities of the factor refer to the domain of politics: one polarity conveys a radically critical view of society (*class, exploitation, man, society, consciousness, struggle, morality*), the other polarity conveys an idea of politics and society that is in line with the principles of the current democratic political regime (*president, minister, elections, government, congressman, parliament*).

Factor 3. *Expressiveness vs. Agency*. The domains of theatre, music, and the arts (*scene director, theatre, performance, play, music, exhibition, show, art, museum*) characterize one polarity of this factor, while the other one contains unidentified references to individual actions and personal agency *(say, want, do, know, go, feel, must, believe, take, see*).

Italy

Factor 1. *Individual vs. Society*. This factor captures the juxtaposition of the social roots of identity -national, political, religious, cultural, ethnic, civic (*European, national, political Christian, religious, catholic, citizens*) with the psychological foundation of self, its pathology (*psychologist, disorders, sex, adolescent, psychological, adult, psychic, pathology, trauma, emotions*), and the primary context of family (*parent, child, mum, mother, adult, kid*).

Factor 2. *Primary bonds vs. Digital relationships*. Whereas on one side of the factor the primary bonds of family are in the forefront (*son, father, home, mum, kid, mother child, parent*), the other side depicts the digital world of social networks and 2.0 technologies (*social network, user, electronic digital, internet, technological, relations, virtual*), which mediates relationships and enables different forms of self-presentation.

Factor 3. *Accidental vs. Absolute*. One polarity represents the contingent and changeable aspects of life, changing according to domains (*social networks, university),* politics (*Berlusconi*), places

(*Italy, Italians, country, national, European*), and roles (*student, user, young*). The opposite polarity is mainly composed of words that refer to some axiological category, affectively connoted (*death-die, faith, love, truth, kill*), which represent the unchanging, universal aspects of human life.

Synoptic chart

Table 7.8 gives the synoptic chart of the semantic structures characterizing the two country-specific analyses. Unlike the previous cases, there is no convergence between them. Greek semantic structure is characterized by the salience of the dialectics between political subjectivity – namely the commitment to a perspective of social and political change – and the connotation of subjectivity as expression of one's self. As to Italy, the dialectics throughout the factors concerns the opposition between local and private (individual, concerning the primary bond, the contingent) and the sphere of secondary relationships (the society, the relationship mediated by technology, the universal dimension of life).

Table 7.8. Subjectivity – Factor 1, 2, and 3 per country

Factor	*Country*	
	Greece	Italy
F1	*Political vs. Artistic subjectivity*	*Individual vs. Society*
F2	*Radical vs. Consensual political identity*	*Primary bonds vs. Digital relationships*
F3	*Expressiveness vs. Agency*	*Accidental vs. Absolute*

Topic 4. Islam

Newspaper articles on Islam were collected in Greece, Italy, Malta, Rumania, and the UK.

Greece

Factor 1. *Situated phenomenon vs. Global issue.* On the one hand, the cultural characteristics of Islam, seen both as a way of life (*child, man, spouse, life*) and as a religious practice (*Muhammad, prophet, God, Muslim*), are recalled. On the other hand, Islam is framed as an international issue, as a foreign policy matter set against a global scenario (*USA, EU, foreign, government, Syria, Turkey, NATO, Russia, power, interest*).

Factor 2. *Threat vs. Recognition*. The second factor opposes a concept of Islam that identifies it with terrorism (*attack, kill, police, dead, demonstrator, embassy, perpetrator, fire, armed*) to a vision of Islam that is connected to the Greek and European history and culture (*Greek, society, religion, history, contemporary, European, culture, century, historical, social, art*).

Factor 3. *Domestic vs. Foreign affairs*. On one polarity Islam is related to national politics, or treated as a political issue in the national agenda (*minister, president, MP, Pasok, election, party, vote, representative*), whereas on the other polarity Islam is concerned with other countries (especially in the Middle East area), as something to be dealt with as a foreign affair (*Middle East region, power, interest, conflict, Iraq, Syria, Afghanistan, war*)

Italy

Factor 1. *Global issue vs. Situated phenomenon*. On one polarity, Islam is framed as an international issue, as a foreign policy matter set against a global scenario (*west, Iraq, United States, regime, war, Bin Laden, Iran, Syria, military, army, Libya*). On the opposite polarity, Islam is viewed as a religious practice (*mosque, worship, prayer, Ramadan, Imam, faithful*) embedded in the everyday life of Muslims in Italy (*place, mayor, community, Milan, downtown, city*)

Factor 2. *Recognition vs. Threat*. The second factor opposes a vision of Islam as a social, religious, and historical phenomenon (*society, religion, identity, values, politics, culture*) to dialogue with (*dialogue*) to a concept of Islam that identifies it with terrorism (*Charlie Hebdo, attack, to kill, Isis, death*) and violent social change (*square, demonstration, Tripoli, Gheddafi, Bengasi, police*).

Factor 3. *Politics vs. Religion*. On one polarity, Islam is considered as a security issue (*security,* islamophobic political views [*Lega, Carroccio, leghista*]) that must be kept under political control by the Italian government (*minister, government*). On the other polarity, Islam is depicted as a religion (*God, Koran, book, Allah, Mohammed, prophet, holy)* associated with a belligerent trait (*kill, die-death*).

Malta

Factor 1. *Situated phenomenon vs. Global issue*. In this factor Islam is associated, on one polarity, to the life of immigrants in Malta (*immigrant, migrant, document, Malta, Maltese, island*), and presumably with integration issues, and acknowledged in its cultural aspects (*culture, cultural, contribute*). In the opposite polarity, Islam is signified as a foreign policy issue, related to the international conflict (*attack, force, Palestinian, rebel, Israeli, militant Syria, wa*r).

Factor 2. *Power vs. Powerlessness*. Great economic power (*oil, price, Saudi*) is associated to Islam on one polarity of this factor, while on the opposite polarity the difficult condition of refugees and asylum seekers – escaping war and misery – is evoked (*station, Greece, borders, Lampedusa, asylum seekers, boat, migrant, African*).

Factor 3. *Threat vs. Recognition.* The third factor juxtaposes the association between Islam and criminal and terrorist attacks (*police, magistrate, attack, kill, Bin Laden, victim*) to the association between Islam and an economic legitimate system (*oil, price, rise, global, market, economy, tax, Saudi, benefit*).

Rumania

Factor 1. *Threat vs. Recognition*. The first factor opposes a vision of Islam that identifies it with terrorism (*terrorist, attack, attempt, Bin Laden*) to the acknowledgment of the historical Muslim community settled in Rumania (*Muslim, religion, Imam, mother, parent, Orthodox church, Christian, Rumania, Bucharest*).

F2. *Global issue vs. Situated phenomenon.* On one pole Islam is associated to the international conflict in the Middle East area (*Middle East, Israel, Jordan, Jerusalem*) and to the related waves of refugees/migrants in Europe (*Europe, Greece, Germany, immigrant, refugee*). On the opposite pole Islam is embodied by the internal threat represented by a young Rumanian (*Luigi Constantin Boicea*) who converted to Islam and was arrested for terrorism.

F3. *Politics vs. Religion*. On one hand Islam is embodied by the socio-political situation of Islamic countries (*Bangladesh, Libya, Tripoli, Bengasi, Dubai*) and the related phenomenon of emigration/immigration (*immigrant, foreigner, worker, refugee, asylum, ambassador*). On the other hand Islam is depicted as a religion that has a potential for radicalization (*God, religion, Koran, prophet, Allah, holy, radical, Bin Laden, terrorist*).

UK

Factor 1. *Global issue vs. Situated phenomenon.* On one hand, Islam is associated to the Middle East and its political and security crisis (*Palestinian, Israeli, Gaza, Iraq, Hamas, attack, military, war, Syria*). On the opposite hand, Islam is associated to the integration of Muslim immigrants in the UK, especially in the education and healthcare system (*education, school, industry, service, college, community, healthcare, university*).

Factor 2. *Measures vs. Personal stories*. This factor presents the opposition between the program of economic and political measures (presumably related to services and governance in Iraq and Afghanistan) (*voluntary, executive chief, industry, local government, service, director, healthcare, education, manager | international, Iraq, Afghanistan*). On the other hand, Islam is associated with the life of Muslim families, especially wives and daughters (*love, family, baby, daughter, husband, father, life, son, mother, girl, woman*).

Factor 3. *Recognition vs. Threat*. Islam as a political issue to be dealt with, and about which political parties debate, characterizes one polarity (*election, vote, party, political religious, candidate, democracy*). The other polarity is related to terrorism and the Islamist threat (*kill, police, bomb, Bin Laden, attack, arrest, die, soldier, convict, shot, killing*).

Synoptic chart

Table 7.9 shows the great similarity among the semantic structures grounding the way the topic of Islam is represented in the 5 Countries under analysis. First (*Situated phenomenon vs. Global issue*) and second (*Threat vs. Recognition*) are present in all 5 Countries. Moreover, the opposition between Islam as a political versus a religious issue is active in 2 out of 5 countries.

Table 7.9. Islam – Factor 1, 2, and 3 per country

Factor	*Country*				
	Greece	Italy	Malta	Rumania	UK
F1	*Situated phenomenon vs. Global issue**	*Global issue vs. Situated phenomenon**	*Situated phenomenon vs. Global issue**	*Threat vs. Recognition°*	*Global issue vs. Situated phenomenon**
F2	*Threat vs. Recognition°*	*Recognition vs. Threat°*	*Power vs. Powerlessness*	*Global issue vs. Situated phenomenon**	*Measures vs. Personal stories*
F3	*Domestic vs. Foreign affairs*	*Politics vs. Religion$*	*Threat vs. Recognition°*	*Politics vs. Religion$*	*Recognition vs. Threat°*

Factors whose interpretations are similar across countries are shown in the same colour and marked with the same symbol

Topic 5. Homosexuality

Newspaper articles on homosexuality were collected in Cyprus, Greece, Italy, Malta, Rumania, and the UK.

Cyprus

F1. *Health vs. Political issue*. On one hand, homosexuality is associated with health issues, namely AIDS (*HIV, treatment, virus, medicine, contact, prevention, health, reduction, danger*), and treated as a medical problem. On the other hand, homosexuality is viewed as an issue that is regulated by the political institutions (*agreement, cohabitation, MP, legislation, parliament, debate, political party*).

F2. *Similarity vs. Difference*. On one polarity of the factor homosexuals are referred to as individuals to whom a regular family life can or should be granted (*partnership, cohabitation, legislation, regulation, couple, marriage, relation*). On the other polarity, homosexuals are represented in the collective manifestation of their diversity, embodied by the gay pride parades (*parade, pride, peace, festival, event*).

F3. Unclear.

Greece
Factor 1. *Policy vs. Arts*. On one hand, homosexuality is considered a political and civil rights issue (*right, justice*), which is regulated (*agreement, cohabitation, legal draft*) by the political institutions and the law (*minister, MP, government, parliament, law*). On the other hand, homosexuality is viewed as an artistic theme, a subject that is performed and acted in plays, movies, novels, and music (*play, theatre, actor, book, music, set, art*).

Factor 2. *Similarity vs. Difference*. On one polarity of the factor, homosexuals are referred to as individuals to whom a regular family life can or should be granted (*partnership, cohabitation, couple, child, marriage, life, family, mother, sex, father, relationship, love, legal draft*). On the other polarity, homosexuals are represented in the public collective manifestation of their diversity, symbolized by the gay pride events (*pride, do, festival, parade, event, organization, announce, slogan*).

Factor 3. Unclear.

Italy
Factor 1. *Experience vs. Institution*. Homosexuality is addressed either as a personal experience (*kid, life-live, feel, coming out, friend, discover, sexuality, narrate*) embedded in micro-settings (family [*parent*], *school*) or as an issue regulated by the political institutions (*civil union, rights, register, candidate, transcription, law, resolution, parliament*).

Factor 2. *Similarity vs. Difference*. On one hand, homosexuals are referred to as individuals to whom a regular family life can or should be granted (*adoption, marriage, couple, sex, recognize, child, union, possibility*), like everyone else. On the other hand, homosexuals are represented in the full and public manifestation of their diversity, symbolized by the gay pride events (*pride, square, demonstration, parade, organize, event, party, participate*).

Factor 3. *Morality vs. Law*. Homosexuality is viewed, on the one hand, as an issue to be approached on the values level, with catholic principles standing out (catholic MPs [*Buttiglione, Binetti*], centre-catholic party [*UdC*], *church, catholic*). On the other hand, homosexuality is conceived as regulated by jurisprudence and the body of laws in place (*verdict, tribunal, court, judge, plea, lawyer*).

Malta
F1. Unclear.

F2. *Experience vs. Institution*. Homosexuality is addressed either as a subjective experience (*mental, love, involved emotional, life*) embedded in micro-settings (family [*parent*], *school*) or as an issue addressed by the political institutions (*party, parliament, vote, electoral, minister, campaign, candidate*).

F3. Unclear.

Rumania
F1.*Institution vs. Experience*. The factor opposes the national and European regulation/the legislative process on gay civil rights (*civil, partnership, deputy, vote, parliament, EU, marriage, legalize*) to micro-stories of homosexuality in Rumania (*tell, girl, young, boy, parent, mother, loved, feel*).

F2. *Normality vs. Deviance*. On one polarity the focus is on the normal life of homosexual couples and their right to have children (*child, can, mother, raised, couple, live, father, society*). On the

opposite polarity homosexuality is associated to criminal practices, involving also the clergy (*report, monk, Vatican, scandal*).

F3. *Morality vs. Law*. On one polarity homosexuality is treated as a moral issue, related to catholic values (*pope, Vatican, catholic, church, priest*), whereas on the other polarity homosexuality is framed as a legal issue, related to civil rights (*deputy minor, civil, commission, parliament, law, document, legalize*).

UK

F1. *Similarity vs. Difference*. On one pole homosexuality is associated to civil rights, mainly same sex marriage (*marriage, right, government, people, party, law, issue, couple*), thus implying that homosexuals should be granted a regular family life, just like everyone else. On the opposite pole, the references are to the gay community and artistic events (*dance, theatre, art, club*), through which the gay identity is expressed in public.

F2. Unclear.

F3. Unclear.

Synoptic chart

Table 7.10 reports the synoptic chart of the factorial dimensions extracted from the country-specific analysis. Also in this case one can see considerable similarity among the semantic structures. One factorial dimension (*Similarity vs. Difference*) emerged from 4 out of 6 analysis, whereas another (*Experience vs. Institution*) from 3 out of 6 cases; in the cases (Italy and Rumania) where the third dimension could be interpreted it was seen in the same way (*Morality vs. Law*). One can add that two further factorial dimensions appear partially similar to the others. Indeed, Cyprus' first factorial dimension (*Health vs. Political issue*) shares the opposition between homosexuality as something that concerns the life and actions of people, in particular the health sphere, and homosexuality as a political/institutional issue. Similarly, Rumania's second factor (*Normality vs. Deviance*) is characterized by the connotation of homosexuality as otherness (or not) that is at the core of the factorial dimension *Similarity vs. Difference* that is present in all countries but Malta.

Table 7.10. Homosexuality – Factor 1, 2, and 3 per country

Factor	*Country*					
	Cyprus	Greece	Italy	Malta	Rumania	UK
F1	*Health vs. Political issue*	*Policy vs. Arts*	*Experience vs. Institution**	-	*Institution vs. Experience**	*Similarity vs. Difference°*
F2	*Similarity vs. Difference°*	*Similarity vs. Difference°*	*Similarity vs. Difference°*	*Experience vs. Institution**	*Normality vs. Deviance*	-
F3	-	-	*Morality vs. Law§*	-	*Morality vs. Law§*	-

Factors whose interpretations are similar across countries are shown in the same colour and marked with the same symbol

Topic 6. Immigration

Newspaper articles on immigration were collected in Cyprus, Greece, Italy, Malta, Rumania, and the UK.

Cyprus

F1. *Personal stories vs. Policy*. On one hand, immigration is referred to as dreadful events related to individuals or groups of refugees escaping from their countries (*human, sea, child, war, ship, life, refugee, woman, tragedy*). On the other hand, immigration is put in the context of the national and European policy aimed at regulating immigrants and asylum-seekers (*accession, ministry, European, presidency, member, committee, asylum).*

F2.*Humanity vs. Administration*. On the one hand, immigration is addressed at the European level as a shared humanitarian problem (*Europe, common, solidarity, human, treatment, war*). On the other hand, immigration is viewed as an issue that can be dealt with according to a procedural, administrative logic (*application-applicant, number, service, evidence, public, total, permit*).

F3. *Crime vs. Economic system*. The press discourse on immigrants is polarized either on the illegal entry of immigrants to Cyprus (*transport, port, ship, boat, transfer*), along with the related police operations (*court, police, detect, document, authority, detention*), or on the impact of immigrants on the national economic system, especially on the labour market (*unemployment, increase, number, population, unemployed, occupation, increase, percentage, economy, trade, industry, census*).

Greece

F1. *Personal stories vs. Policy*. On one hand, immigration is referred to as specific events related to individuals or groups of immigrants trying to enter Greece (*child, boat, life, detect, port, young, dead*). On the other, immigration is signified as national and European policy aimed at regulating immigrants and asylum-seekers (*EU, asylum, state, minister, government, protection, ministry*)

F2. Unclear.

F3. *Administration vs. Humanity*. On one pole immigration is framed as an administrative issue, in terms of procedures required to stay in Greece (*issue, grant, residence permit, requirement, organization*). On the opposite pole immigration assumes social connotations (*job, work*) and human traits and feelings (*alone, human, afraid, feel, live*).

Italy

F1. *Integration vs. Emergency*. This factor juxtaposes the integration of immigrants in the host society – in a variety of domains, mainly education and the labour market *(integration, citizenship, job, schools, worker, population, cultural, social*) to the emergency situation created by immigrants/refugees who try to reach Italy by boat, and who experience suffering and even death (*ship, rescue, guard, sea, harbor, Lampedusa, navy, first aid, military, die, Libya, operation*).

F2. *Policy vs. Personal stories*. National/international immigration measures enacted by governments and the EU (*government, EE, opposition, parliament, forced repatriation, expulsion, rights, international, UN, law, illegal immigrant*) are opposed to the everyday life of immigrants settled in Italy (*child, woman, kid, family, school, narrate, live, city, home, born, story*).

F3. *Humanity vs. Administration*. On one hand, immigrants are depicted as groups with a history, identity, values, culture (*identity, human, values, history, cultural*), caught in the tragedy of escaping their situation (*die-death, tragedy, sea, shipwreck*). On the opposite side immigrants and asylum seekers are treated as a logistic and administrative issue to deal with, in terms of organizing reception structures (*services, centres, facilities, place, reception*) and identifying administrative responsibilities and jurisdiction (*prefecture, region, province, civil protection, municipality*).

Malta

F1. *Religion vs. Crime*. The newspapers' discourse on immigrants is polarized either on religion, mainly Islam related to Christianity (*Muslim, faith, Arabia, Christian, spiritual, priest*) or criminal activities (*charge, magistrate, drug, passport, crime, police, arrest, officer*).

F2. Unclear.

F3. *Personal stories vs. Policy.* On one pole there seems to be reference to the immigrants' personal stories (*pregnant, female, body, male, disease, woman*), whereas on the opposite pole political resolutions and immigration policy are highlighted (*EU, government, minister, citizenship, vote, favour, approve, application*)

Rumania
F1.*Personal stories vs. Policy*. On one pole stories of migrants (mostly coming from the Middle East) settled in Rumania and of Rumanians settled abroad are presented (*enterprise, family, work, life, home, tell, parent, child, mother*). On the opposite pole the most relevant references are to the recent migration crisis and its management in Europe (*border, European, Merkel, Hungary, refugee, commission, Schengen, crisis*).

F2. *Local issue vs. global issue.* One polarity is characterized by lexemes that refer to the impact of the immigration fluxes, in terms of low security (*crime*) change of the electorates' orientation (*vote, population*) and conflict among States (*frontiers, Serbia, Great Britain, Hungary*); on the other polarity the link between immigration and terrorism (Bin Laden) is outlined, in the context of a set of lexemes referring to the international political and economic dynamics (*Merkel, Dulaimi, Iraqi, Germany, enterprise, business*).

F3. *Emergency vs. Integration*. On one pole immigration is see as a risk, a threatening, out-of-the-ordinary situation mostly associated to terrorism, (*Osama Bin Laden, Dulaimi*), while on the other pole migration (of Rumanians) is presented as a normal and socially accepted phenomenon (*Merkel, Germany, work, population, vote, study*)

UK
F1. Confused/unclear.

F2. *Personal stories vs. Policy*. This factor opposes the description of personal cases of immigrants (*child, family, father, mother, girl, parent, boy, woman, die, baby, sister, life*) to immigration policy and its relevance for UK politics (*minister, Labour, policy, EU, party, office, asylum, issue, border, control*).

F3. *Politics vs. Crime.* One pole addresses immigration as political issue and object of political competition, while the other pole appears to be focused on illegality and police operations of rescue or detention (*operation, police*).

Synoptic chart
Table 7.11 shows the synoptic chart of the factorial dimensions extracted from the country-specific analyses. One can see a large similarity among semantic structures. One factorial dimension (*Personal stories vs. Policy*) is present as first or second factor in all 6 analyses; the factorial dimension (*Humanity vs. Administration*) is present in 3 Countries. Incidentally, this is the factorial dimension where on one of the polarities the anchorage to the emergency of the arrival of refugees by sea is salient. It is no surprise that this factorial dimensions is present in the Mediterranean countries (with the exception of Malta). Also a third factorial dimension is present in more than one country - *Integration vs. Emergency,*which is present in Italy and Rumania.

Moreover, one can find the pole *Crime* in 3 out of 4 other factorial dimensions, though in juxtaposition with different anchorages - *Religion* (Malta), *Politics*(UK), and *Economic System* (Cyprus).

Table 7.11. Immigration – Factor 1, 2, and 3 per country

Factor	*Country*					
	Cyprus	Greece	Italy	Malta	Rumania	UK
F1	*Personal stories vs. Policy**	*Personal stories vs. Policy**	*Integration vs. Emergency§*	*Religion vs. Crime*	*Personal stories vs. Policy**	-
F2	*Humanity vs. Administration°*	-	*Policy vs. Personal stories**	-	*Local issue vs. global issue*	*Personal stories vs. Policy**
F3	*Crime vs. Economic system*	*Administration vs. Humanity°*	*Humanity vs. Administration°*	*Personal stories vs. Policy**	*Emergency vs. Integration§*	*Politics vs. Crime*

Factors whose interpretations are similar across countries are shown in the same colour and marked with the same symbol

Conclusive remarks

The comparative analyses of the semantic structures grounding the representation of topics in the countries under analysis have highlighted the high level of similarity among them. In all but one topic - subjectivity - one factorial dimension was present in all countries (in the case of Homosexuality in 4 out of 6 countries); moreover there was a second factorial dimension in at least 50% of the countries involved in the analysis of that topic. For 3 out of 6 topics (Homosexuality, Islam and Immigration), the similarity among countries also concerns the third factorial dimension.

On the other hand, the presence of similarities does not prevent us from recognizing the specificities of countries' semantic structure. Each of the 25 semantic structures emerging from the analysis shows a particular profile, due to factorial dimensions that are specific for that country and/or to an idiosyncratic combination of factorial dimensions that, taken in themselves, are similar to those of other countries.

It is worth noticing that also when the semantic structures are similar, this does not mean that the content of the representation is similar as well. Indeed, the same factorial dimension polarizes patterns of lexemes that can vary across countries, due to the local circumstances and/or geopolitical factors – the cases of the importance of lexemes concerning the electoral procedures in Greece, as well as those concerning the emergency of the migration flows across the Mediterranean are emblematic in that sense: according to the interpretation provided, in both cases these patterns of lexemes are not viewed as the specific way a more general component is instantiated in that particular context.

It is interesting to observe that similarities/dissimilarities seem to be distributed in a way that only marginally reflects the geographical and historical closeness among countries. Table 7.12 shows the level of similarity among each pair of countries, calculated as the percentage of factorial dimensions shared by the pair out of the possible maximum.[65] As one can see, even with some exceptions (in particular, the high level of similarity between Italy and Greece and the low level of similarity between Cyprus and other countries) most comparisons present average scores.

[65]. Namely, the number of comparisons x 3 factorial dimensions. Indeed, not all countries were included in all analyses; therefore, the number of comparisons vary over the pairs and needed to be normalized.

Table 7.12. Levels of similarity among countries*

	Cyprus	Greece	Italy	Malta	Rumania	UK
Cyprus		33	33	12	12	21
Greece			50	33	33	33
Italy				33	41	33
Malta					44	33
Rumania						33

*Percentage of common factors out of the theoretical maximum

On the other hand, what seems to make the difference in the distribution of similarities and dissimilarities is what one could call the "level of otherness" implied in the topic. Indeed, the 6 topics can be considered to be characterized by a certain gradient of difference and strangeness with respect to the producers and users of its representation. Accordingly, the 6 topics can be distinguished according to the degree of exposure to otherness they convey. Subjectivity and participation can be associated with a low level of exposure to otherness – indeed, they do not necessarily imply the reference to what is outside the in-group and the canonical forms of life. Health and homosexuality can be regarded as conveyers of a medium level of exposure to otherness - indeed, in both cases the topic may (but may not) imply the rupture of the canonical order, threatening the normal course of life (illness in the former case, the subversion of the traditional view of family and desire in the latter case). On the other hand, the source of rupture does not come from outside – they are part of the normal course of life; their effect can be seen as critical and dangerous, but their causes do not come from a completely other world. The latter is instead what characterizes immigration and Islam – the rupture that they produce is both catastrophic in its effect and fully other in its source. And this makes these topics the ones thought to represent the highest level of exposure to otherness.
Now, what is interesting to notice is that the hierarchy of the topics in terms of the level of otherness corresponds to their degree of similarity among countries. Indeed, once the level of similarity in terms of token/type ratio has been esteemed (i.e. the number of factorial dimensions that emerged from all analyses performed for a given topic divided by the number of types of factorial dimensions the former were grouped into), the rank among topics is almost completely consistent with the hierarchical differentiation in accordance to the three levels of exposure to otherness (cf. Figure 7.1).
This result is not surprising when it is considered in the SCPT framework. Indeed, exposure to otherness is a powerful trigger of affective-laden generalized meaning, which tends to be common in situated cultural milieus, by definition. Therefore, the more the topic involves exposure to otherness, the more similar the semantic structures will be, as a result of the salience of homogenizing affective, generalized meanings crossing the local cultural milieu. To paraphrase Tolstoy, [66] *all affectively activated cultural milieus are alike*.[67]

Meta-analysis
This level of analysis is aimed at providing a second-order interpretation of the components of the semantic structures. The purpose of this second-order interpretation is to test if (some of) the factorial dimensions can be seen as the local expression of the lines of semiotic force identified by the VOC survey (L1 analysis).

[66]. "All happy families are alike; each unhappy family is unhappy in its own way". (Tolstoy, 1877, p. 1).
[67]. This is consistent with the fact that the factorial dimensions that are more similar across countries are the first and the second, namely the salient ones in terms of capacity of channelling lexical variability (therefore interpretable as the marker of the most generalized meanings (see § 3).

The meta-analysis has classified 28 semantic components out of the 45 identified by the 25 topic analyses (Figure 7.2).

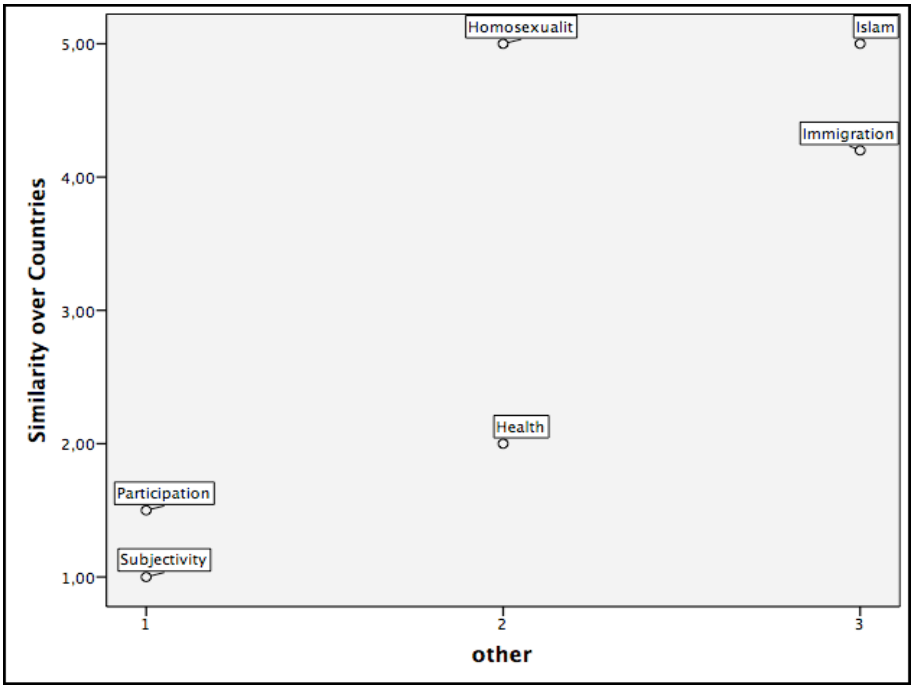

Figure 7.1. Exposure to otherness and similarity of semantic structures


HEALTH
IMMIGRATION
MLT1-Religion vs Crime
PARTICIPATION
GR2 Disorder vs. Order
ITA2-Institutional participation vs. Protest
Line of semiotic force 1. Affective connotation of the world – foe vs friend
HOMOSEXUALITY
ROM2-Normality vs. Deviance
SUBJECTIVITY
GR2-Radical vs. Consensual political identity
ISLAM
GR2, ITA2, MLT3, ROM1, UK2 Threat vs. Recognition


Health
IT3-Control vs. Guarantee
GR2-Economic constraints vs. Proactive action
IMMIGRATION
CY1-Crime vs. Economic system
ITA1, ROM1, Integration vs. Emergency
UK3-Politics vs. Crime
PARTICIPATION
Line of semiotic force 2. Direction of desire - engagement in vs protection from
HOMOSEXUALITY
CY2, GR2, ITA2, UK1-Similarity vs. Difference
SUBJECTIVITY
ISLAM

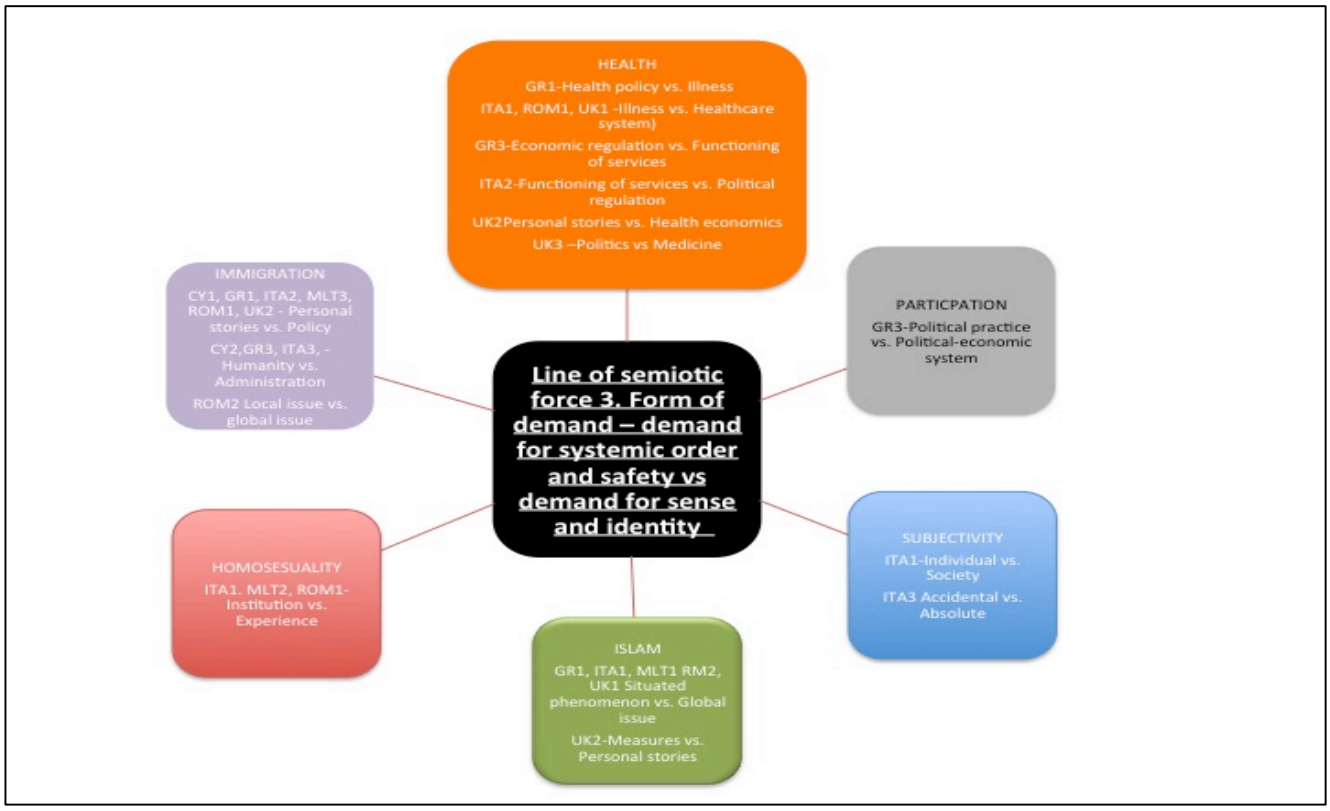

Figure 7.2. L1 lines of semiotic force and semantic components

1) 7 types of semantic components were interpreted as specimens of the line of semiotic force 1 (AFFECTIVE CONNOTATION OF THE WORLD - *foe vs. friend*). This classification is motivated by the salience of an opposition between the positive and negative connotations that characterize these semantic components.
This opposition is evident in the semantic component *Recognition vs. Threat*, that connotes Islam in terms of a persecutory foe *versus* an object endowed with value and/or worthy of being valorized.
In the case of *Disorder vs. Order* and *Institutional participation vs. Protest,* the contrast concerns a view of participation in terms of conflict and fighting – a movement toward a foe *versus* participation as collaborative membership in the current order of things, thus assumed implicitly as worthy of value. Similarly, the opposition implied in *Radical vs. Consensual political identity* (subjectivity) concerns a militant oppositional and conflictive approach to society versus a positive recognition of the current state of affairs. At the core of the *Normality vs. Deviance* component one can find the connotation of homosexuality as a bad, negative object in opposition to the cleaned up image of homosexuality as "people like us", for this reason worthy of being valorized. Finally, we classify the semantic component *Religion vs. Crime* to the line of semiotic force 1 due to the persecutory connotation implied in the assimilation of Islam to crime; due to this connotation, the opposed representation of Islam as a religion can be interpreted as a neutralization of the persecutory valence, thus a form of recognition and valorization.

2) 6 types of semantic components were interpreted as specimen of line of semiotic force 2 (DIRECTION OF DESIRE- *engagement vs. protection)*. Generally speaking, this classification reflects the view of these components as involving, though in different ways, the opposition between a general attitude of moving back from the object/being subjected to the object's movement and the opposing attitude of moving towards/entering relationship with it (regardless of its positive or negative valence).
In *Control vs. Guarantee* (health), *engagement* lies in the evocation of the purpose of the investment, in this case the universal purpose of the welfare state; on the opposite polarity,

protection can be found in the aspects of control and constraints conceived as defense from the risk the system runs. *Economic constraints vs. Proactive action* (topic health) is also characterized by constraints and control – this time of an economic type - opposed to the pursuit of what is desired. What distinguishes this semantic component from the previous one concerns the type of constraint – economic rather than legislative – and the subject of the investment –people, rather than the system. *Similarity vs. Difference* (homosexuality) is somewhat similar to the semantic component *Normality vs. Deviance* that we associated with line of force 1. Yet, what distinguishes these two components is the fact that in the first one, the otherness associated with the object is not negative in itself – the diversity does not seem persecutory, but something that is manifested and that compels subjection to it. A similar consideration led to the classification of the two semantic components characterized by the connotation of immigration in terms of crime - *Politics vs. Crime* and *Crime vs. Economic system*. In both cases this can be viewed as the expression of the basic feeling of being subjected to something that comes from the outside - what in the context of line of semiotic force 2 is labeled *protection*. Accordingly, the opposite polarity represents forms of engagement with migration, in one case foregrounding the dimension of the political management of the phenomenon; in the other case the economic aspects. Finally, *Integration vs. Emergency* can be meta-interpreted in terms of the opposition between a connotation of immigration as something that crashes down on the person, making him/her react to it (emergency) as opposed to immigration as an object that is the target of the subject's investment, something the person desires (integration). Thus, also in this case the semantic component seems to express the basic dialectics between being the subject of desire as opposed to being the object of the other's desire.

3) 15 types of semantic components were interpreted as specimens of line of semiotic force 3 (FORM OF DEMAND - *demand for systemic order vs. demand for sense and identity*). This classification is based on the importance of the individual/local vs. systemic/universal dialectics marking these semantic components. In the case of *Health policy vs. Illness* and *Illness vs.Healthcare system* the polarization takes the form of the dialectics between concrete case vs. general category – namely health as concerning the practical state of disease/treatment vs. health as a general abstract political category of systemic regulation. The same dialectics can be found at the grounds of the components that oppose the practical life of people to systemic requirements (whether they be economic, functional, political or legislative) – *Personal stories vs. Health economics* (Health & Wellbeing), *Measures vs. Personal stories* (Islam), *Institution vs. Experience* (Homosexuality) *Personal stories vs. Policy* and *Humanity vs. Administration* (Immigration). In the case of *Politics vs. Medicine,* the dialectics assumes a slightly different form, concerning the opposition between local practice – in this case, medical activities - and the universal system – in this case, the political system. Similarly, in *Economic regulation vs. Functioning of services* as well as *Functioning of services vs. Political regulation* (Health) the practical level is expressed in terms of anchorage to local activities and functioning of services in daily life, as opposed to the general political or economic context. *Situated phenomenon vs. Global issue* (Islam) and *Local issue vs. Global issue* proposes – though on a different scale with respect to the previous components - the same division between the local as the sphere of experience and the global as the sphere of abstract reference. One finds the same opposition between action and system in *Political practice vs. Political-economic system*, this time emerging as two opposing ways of viewing participation: local action versus being part of a super-order system. In the case of *Individual vs. Society* (subjectivity) the individual – system dialectics is enacted in terms of two polarized dimensions of the self – that which concerns the person in itself juxtaposed to the self as concerning embeddedness in the whole. *Accidental vs. Absolute* presents a trait that allows it to be associated with line of semiotic force 3.In fact, in this case the individual-system dialectics is replaced by the polarization between the contingent, experiential dimension of subjectivity and the normative, universal axiological construction of it.

Conclusive remarks

The meta-analytic interpretation resulted in the classification of 50 out the 65 components of the semantic structures identified by the topic analyses (76%). As Table 7.13 shows, the coverage of the classification varies across topics - from 50% of participation and subjectivity to 90.9% and 100% of, respectively, immigration and health .

The topics immigration (100%), health (90,91%), Islam (73,33%) and homosexuality (66,67%) present the highest proportion of semantic components that can be interpreted as expression of lines of semiotic force.

Table 7.13. Classification of semantic components in accordance to lines of semiotic force

Topic	*N*	*Class*	*%*
Health	11	10	90.91
Participation	6	3	50
Subjectivity	6	3	50
Islam	15	11	73.33
Homosexuality	12	8	66.67
Immigration	15	15	1.00
Tot	65	50	76.92

N= Number of components of semantic structure.
Class= classified in accordance to the lines of semiotic forces

It is worth noticing that the meta-interpretation has reached a high level of coverage – more than 3 out of 4 semantic components identified by the topic analyses were linked to one of the three lines of semiotic force. This is consistent with the theoretical and methodological framework of the analysis, which leads us to view the main components of the semantic structures in terms of the local instantiation of the basic affective-laden generalized meaning making up the lines of semiotic force.

Second, it is interesting to observe how the level of incidence of the lines of semiotic force over the 6 topics vary and how this variation is quite consistent with the idea that the more the affective and identity value of the topic, the more it lends itself to be shaped by the generalized meaning at the core of the cultural milieu. However, it cannot be ruled out that the distribution may also be affected by technical issues – more specifically, the lower number of analysis as to participation and subjectivity as well as the higher extension and lower specificity of these topics compared to the others.

C. Semantic characterization of articles

The geometrical description of the relation between the first two factors and the characteristics of articles (which entered the analysis as illustrative variables) is reported below, with the focus on the political orientation and local/national differentiation of the newspapers where the articles were published. The results are reported topic by topic

to be integrated

7.2.d. Discussion

to be integrated

7.3. Content analysis of private discourse

to be integrated

7.4. Part IV.c. Topological analysis of the structure of the representation

7.4.a. Introduction

Topological analysis was planned and carried out by UniSalento as an addition to the analysis of the representations of participation and democracy. The topological analysis of the representations aims to explore how the representations of this twofold topic can vary within the specific population, detecting the structure of the representation itself. According to the theory of Social Representations (TSR) (Moscovici, 1984), representations can be meant as the product of a social process through which individuals and groups reconstitute important objects of knowledge which they confront and to which they attribute specific meanings. Therefore, social representations can be defined as socially consistent and communicable structures of knowledge that circulate in a given social environment. According to the Central Nucleus Theory (CNT) (Abric, 2003a,b), for a full understanding of a social representation, it is necessary to account not only for its contents, but also for its internal organization (or structure). In fact, on the one hand, contents feature the set of information that a social group shares about an object of knowledge and, on the other hand, the structure features the way in which this information is framed into a coherent and meaningful construction. Accordingly, the structural approach postulates that social representations are internally organized in two systems, a central and a peripheral system.

The central system, or the central nucleus of the representation, regulates the whole organization of the representation and determines its full sense; it is composed of a small number of cognitive elements that account for the stability, rigidity and consensuality of the representation. These elements are deeply embedded in the collective memory and connected to the history of a social group, they are resistant to change and less sensitive to the variability of social contexts.

The peripheral system is composed of all those elements of the representation that account for mobility, flexibility and inter-individual differences. Thus, it provides the integration of individual experiences, thereby expressing the contradictions and heterogeneity of a particular social group. Unlike the central nucleus, the peripheral system is more sensitive to variations in context. Hence, it has the functions of adaptation to real social practices, and of differentiating the representations' meanings.

Potential variations in the structure of social representations interrelate with the different positions of groups and individuals in the social field. Specifically, the Socio-Dynamic approach (Doise, 1992) to the study of social representations assumes that individuals cognitively adapt the components of social representations according to the positions that they hold in their relational and social context. Functioning within this theoretical framework, the social representations of democracy and participation can vary not only diachronically, that is, over time, but also synchronically. The variations can be detected through the topological analysis of the linkages that organize the internal structure of the representations so that differences and similarities among individuals can be explored.

Whereas the analyses used for the quali-quantitative content analysis of media discourses aim at detecting the main themes in terms of which each topic is represented (CA) and its semantic components (COR), the topological analysis of the social representations of participation and democracy combine the analysis of the semantic dimension of the social representations of these two social objects with the analysis of their internal organization. By linking the CNT and the socio-dynamic approach, the analysis of social positioning was added to the topological analysis to explore how the social representations of democracy and participation may vary among people living in the same environment depending on their place in a common socio-symbolic field. For this purpose, the individual positioning was defined based on the local identity and the national identity.

Finally, whereas quali-quantitative content analysis of media discourses is aimed at reducing to a few basic organizing dimensions a huge variety of dispersed data across different European countries, the topological analysis has a much narrower scope. It is based on a small set of data,

gathered in a very restricted geographical area, so that its findings can be interpreted only in relation to the specific sociocultural context investigated.

7.4.b. Method

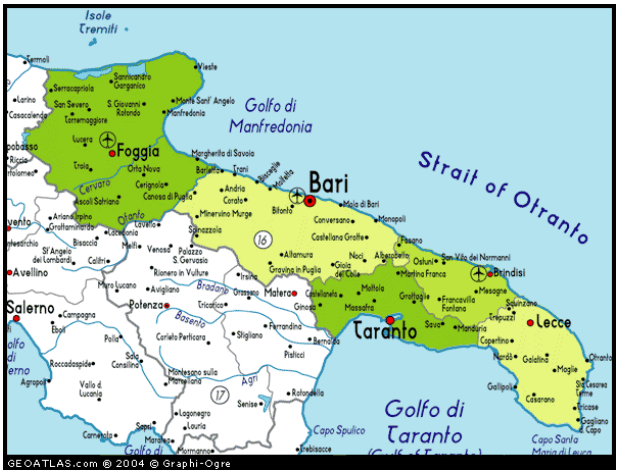

Figure 7.3. Salento area

Sample

A convenience non-proportional quota sample (stratified by sex and age) of residents in the territorial area comprising the provinces of Lecce, Brindisi, and Taranto (Italy) was selected. This territorial area corresponds to a relatively homogeneous community named Salento (see Figure 7.3).

The participants in the study were 390 native-born Italian residents of Salento (49% female), aged between 19 and 94 years (Mean = 42.48, SD = 14.66). The age and gender distribution of interviewees was monitored during the whole recruitment process and it was constantly adjusted to balance the composition of the sample. Almost all the participants were highly educated. In fact, 47.4% were high school graduates, 30% were college graduates and 13.6% had a post-graduate education. The remaining 9% had lower education levels. Almost 32% of the interviewees (N=388) were left-oriented (31,8%), 13,3% were right-oriented whereas 12,1% were center-oriented. A significant portion of participants (42,3%) declared that they did not have any political preference.

Procedures

Participants were invited to complete an online survey by filling in a self-report questionnaire available at the link:
https://docs.google.com/forms/d/1rbQ24QrDk8o8Ud0XcambMKUvLG1p-4Y3KrwM-D3sPE0/viewform?c=0&w=1.

Interviewees were asked to participate in a survey that was part of the international research project RE.CRI.RE. by anonymously answering questions concerning the issues of democracy, participation and citizen identity. The questionnaire administration took approximately 15 minutes, and no incentives were provided for completing the task.

The interviewees who did not complete the word association task were not included in the topological analysis. Hence, 388 valid cases were considered for the topic of democracy and 378 were considered for the topic of participation.

Instruments

The questionnaire was composed of several instruments. However, for the purpose of the present study, the following measures were adopted:

- *Word association tasks*. In order to disclose the structure of representation, respondents were provided with two stimulus terms, i.e., “democracy” and “citizen participation”. They were

invited, separately for each of the two stimuli, to freely list the first five words – were they nouns, adjectives, verbs, etc. – that came to their mind, and then to rank them by importance.

- *Local identity*. The six items of the affective dimension of the Place Identity Scale of Lai, Shafer, and Kyle (2008) were included, as well the 8-item Brief Sense of Community Scale (Peterson, Speer, & McMillan, 2008). All items were adapted so as to refer to the community of residence.
- *National identity*. The eight-item National Identity scale (Lewin-Epstein & Levanon, 2005) was included, composed of two dimensions: civic and ethnic identity.

Participants were also asked to provide some personal background information: age, gender, place of residence, job position, education, and political orientation.

Analyses: Structure of the representations and positioning

All the scales used were checked for reliability (Cronbach's alpha). The structure of the multidimensional scales was also checked by means of exploratory factor analyses.

The data gathered through the word association tasks were processed by the software Ensemble de Programmes Permettant L'Analyse dês Évocations (EVOC), version 2005. Before running the analysis, the textual corpus was revised to erase typing errors, reduce ambiguities and data dispersion. Specifically, conservative criteria were followed and synonyms were not conglobed into thematic categories; homographs were disambiguated, compound nouns were joined together to make a single word, feminine forms were changed into masculine, plural forms were changed to singular forms, and so on and so forth.

EVOC calculates the frequency of each simple word, the average orders of evocations, and the average of the average evoked word orders. Through this analysis it is possible to identify the central and peripheral elements of the social representation of democracy and citizen participation according to the average frequency of occurrence of words. The main output of EVOC organizes the words according to their frequency and rank in four quadrants (Figure 7.4).

- The elements that belong to the central system of social representation are situated in the upper left quadrant of the picture, and are characterized by the highest frequency of occurrence and by a low average rank of appearance. The terms that provide meaning and stability to the representation are here.
- The words located in the lower right quadrant are more clearly peripheral elements belonging to the second periphery (Vergès, 1999). They are characterized by a low frequency and by a low average rank of appearance. In this section, we find the elements going in or out of the representation.
- The elements of the upper right quadrant are considered part of the first periphery, which can migrate to the central nucleus; they are characterized by a high frequency of appearance and by a low average rank of appearance
- Finally, the elements in the lower left quadrant are contrasting elements, characterized by a low frequency of appearance and by a high average rank of appearance. These terms that can either typify the nucleus or symbolize the tendencies of a minority.

Central elements (nucleus)	Elements of the 1st periphery (high peripheral zone)
Elements of contrast	Elements of the 2nd periphery (low peripheral zone)

Figure 7.4. The structure of representation

In order to establish the four quadrants, a cut-off value has to be chosen with reference to both the frequency and the rank of the associations. In particular, the mean rank of all the associations was established as the cut-off point for the rank criterion whereas two cut-off points were established for the frequency criterion. Following a qualitative approach, the minimal and the intermediate frequency values were chosen through a comparison between the actual distribution and the expected distribution of the frequency of the words evoked (Zipf's Law). Finally, three frequency zones were determined:

1. zone 1 permits the minimum frequency cut off to be set and the associated words with low frequency to be included. These words are very numerous.
2. zone 2 allows to establish the intermediate frequency cut off and the associated words with medium frequency to be included.
3. zone 3 includes the words with high frequency. There are very few of these words.

To detect the synchronic variations in the structure of the representations based on the individuals' positioning determined by their local and national identity, the prototypical analysis of the internal structure of the social representations of democracy and participation was replicated on four different textual corpora, each corresponding to sub-samples of individuals with high or low scores on National and Local identity.

7.4.c. 6. Results

The scales used showed good reliability indexes (Cronbach's α): Local Identity Scale (LIS) .82; National Identity Scale (NIS) .75. The variables were calculated by adding the items' scores.
Exploratory Factor Analysis (EFA) with Varimax rotation was conducted on both the scales to determine the factor structure. LIS items loaded on one factor explaining 54.3% of variance. NIS item loaded on two factors (ethnic and civic identity) (Table 7.14), explaining respectively 38% and 14.9% of variance.

Table 7.14. National Identity Scale: Item loadings

Item1	0.704	0.276
Item2	0.546	0.520
Item3	0.513	0.495
Item4	0.178	0.718
Item5	0.736	0.015
Item6	-0.118	0.698
Item7	0.188	0.606
Item8	0.772	0.007

1. The structure of representations: Central nucleus and periphery

6.1.a Democracy

The prototypical analysis indicated that the social representation of the topic of democracy is quite composite and, as expected, that the number and the semantic variety of the contents of the representation increases as the second periphery is approached, as shown in Table 7.15.
The central nucleus (i.e. upper left quadrant) sets certain human values and principles – such as *freedom*, *equality*, *participation*, *justice*, *respect* and *equivalence* – that can be seen as pre-conditions to the enactment of democracy and revolve around the recognition of the basic *rights* of *citizens* established by the *law*. The first peripheral contour (i.e. upper right quadrant) grounds the key topic within the institutional context where the most frequent semantic referents – such as *vote*, *choice, government* and *politics* – shape the representative form of democracy giving continuity to the picture emerging from the central nucleus that posits citizenship at the center of the social view

of this topic. Additionally, this area of the representation collects some components that are linked to the concept of *solidarity* that fosters *collaboration* and *sharing* between citizens.
A comprehensive examination of the second periphery (i.e. lower right quadrant) and the contrast zone (i.e. lower left quadrant) reveals that both the sections are not very far from the central nucleus and the first periphery, as they contain elements that seem to reinforce the components of the core of the representation rather than challenging its stability. In particular, the contrast zone embraces elements that relate to the idea of democracy founded on the rule of law and the recognition of equal rights to citizens, as indicated by the terms *Constitution*, *lawfulness*, *freedom of speech*, and *equaity of opportunities*. At the same time, whereas *direct*, *responsibility*, and *popular sovereignty* appear to be linked to the idea of representative democracy surfacing from the first periphery, *control*, *autonomy*, *law violation* and *guarantee* introduce something new in the content of the representation, recalling the regulatory function of democracy. Similarly, *dialogue*, and *trust* slightly relate to the relational facet of democracy whereas *common-good* and *liberalism* evoke the distributive and economic facet.
The link between the elements of contrast and the second periphery appears to be relevant as indicated by the set of referents that emphasise the idea of dialogue and dialogical confrontation emerging in the former and then expanded in the latter – see, for example, the words *listening*, *discussion*, *speech*, *opinion*, *thought*, *freedom of thought*, and *media* (i.e. right lower quadrant).
Three main thematic assets can be distinguished in the second periphery. The social asset that depicts the collective shape of democracy as indicated by the words *civilization*, *community*, *engagement*, *society*, *development*, *pluralism* and *unity*; the valuable asset that brings together the esteemed qualities of democracy, which are *loyalty*, *tolerance*, *fraternity* and *transparency*. Finally, the emotional asset that includes the subjective stance of democracy indicated, for example, by the terms *well-being* and *hope*. All these aspects are quite marginal to the social understanding of democracy.

Table 7.15. Democracy - Prototypical analysis

	Nucleus			*First periphery*		
	Rank <3. .00			Rank ≥3.00		
Frequency ≥ 15	Citizenship	20	2.25	Collaboration	18	3.56
	Rights	59	2.39	Sharing	20	3.5
	Body of law	15	2.73	Duty	24	3.5
	Equity	15	2.93	Election	15	4.2
	Justice	67	2.88	Government	35	3.86
	Freedom	203	2.06	Deceit	27	3.15
	Equivalence	15	2.73	Law	16	3.56
	Participation	85	2.61	Politics	24	4.29
	Population	135	2.69	Power	29	3.7
	Respect	52	2.73	Choice	35	3.2
	Equality	148	2.67	Solidarity	17	3.76
				Vote	51	3.59
	Elements of contrast			*Second periphery*		
	Rank <3			Rank ≥3		
Frequency 5≤F<15	Autonomy	8	2.87	Listening	13	3.6
	Common	6	3	Lack	12	3.8
	good	5	2.4	Wellbeing	7	3.4
	Control	13	2.61	Civilization	9	3.56

	Constitution	11	2.81		11	3.27
	Dialogue	5	3	Community	10	3.3
	Direct	5	2.2	Debate	5	3.6
	Trust	6	2.5	Culture	5	4.2
	Guarantee	6	2.5	Demagogy	5	3.4
	Important	5	1.8	Dictatorship	9	3.79
	Italy	12	2.5	Speech	12	3.6
	Lawfulness	6	3	Fraternity	11	3.64
	Liberalism	8	2.25	Greece	6	3.12
	Freedom of	8	3	Engagement	11	3.18
	speech	6	1.66	Media	11	3.36
	Peace	8	3	Work	10	3.3
	Equivalence	12	2.25	Loyalty	7	3.3
	of	14	2.36	Freedom of	5	3.2
	opportunities	8	3	thought	5	3.2
	Responsibilit	7	3	Meritocracy	7	4
	y			Modernity	10	3.6
	Popular			Opinion	6	3.2
	Sovereignty			Opportunity	6	3.8
	Utopia			Thought	11	3.45
	Values			Pluralism	6	3.33
	Law			Representative	11	3.64
	violation			ness	5	3.8
				Referendum	5	3.4
				Society	14	3.58
				Sovereignty	12	3.4
				Hope	5	3.4
				State	13	3.07
				Development	11	3.7
				Tolerance		
				Transparency		
				Unity		

In conclusion, it is interesting to notice that the second periphery includes some referents – in particular, *representativeness*, *referendum*, *state* and *sovereignty* – that expand the representative view of democracy that characterizes the steady nucleus of the representation.

1.b Citizen participation

The prototypical analysis of the social representation of the topic participation disclosed a somehow controversial picture where the descriptive elements that mainly characterize the center of the representation intertwine with the evaluative elements that are spread all around the internal structure (Table 7.16). The core of the representation reveals that *democracy* and participation are twin-concepts as well as that both these topics are based on the values of *freedom* and *equality*. At the same time, the findings indicate that the nucleus gathers several semantic elements that together depict the concept of individual agency, such as *activism*, *involvement*, *engagement*, *duty*, *will* and *responsibility*.

Mass communication and *dissatisfaction* are outstanding components of the central nucleus. In particular, the former seems to recall the powerful role of communication channels in reporting/stimulating/discouraging participation. Additionally, the latter warns that participation is somehow linked to a negative emotional experience.

Unlike democracy, there are fewer referents to the conventional/political form of participation. In particular, *referendum* is included in the core and *politics* and *vote* characterize the first periphery of the representation. Moreover, whereas the nucleus seems to shed light above all on the

individual effort to participate, the first periphery emphasizes the social and collective counterpart of participation, as unveiled by the terms *assembly*, *collaboration*, *sharing*, *unity* and *manifestation* with the latter drawing attention to a foremost unconventional form of political engagement.
The elements of contrast, on the one hand, strengthen the image of participation depicted in the central nucleus but, on the other hand, introduce new aspects, in particular *education*, *school education* and *culture,* which imply that participation can be seen as a practice to be learned at school. In addition, it is interesting to notice that whereas the nucleus of the representation focuses on *will* and *duty*, the elements of contrast call attention to the *right to* participate, hence complementing a threefold image of participation as an individual duty, right and voluntary *choice*. Moreover, it is possible to see that both the contrast area and in the second periphery (i.e. lower right quadrant) include the counterproductive features of participation – for example *absenteeism*, *disorganization*, *ignored* – together with *uneven*, *untruth*, and *ineffective* (i.e. lower right quadrant). In particular, the elements of contrast and the second periphery outline three main areas: social engagement, advancement and dialogical confrontation. The first encapsulates the terms *solidarity*, *support*, *utility* and, marginally, *charity,* as well as emphasizing the degree of participation of individuals in *community*, *collectivity* and *society*. Advancement covers features that draw attention to *development*, *change*, and *growth*. Lastly, the dialogical confrontation covers components that are useful in understanding that participation involves communicative exchanges and interaction as indicated by the words *communication*, *debate*, *dialogue*, and *arguing* which in turn call for *transparency* and *honesty*. Notwithstanding, unlike *education* and *rights*, which are both included in the elements of contrast so as they can migrate to the first periphery of the representation, dialogical confrontation appears to be a negligible dimension to the social understanding of participation as it stands in the second periphery of the representation.

Table 7.16. Participation- Prototypical analysis for the global corpus

	Nucleus			First periphery		
	Rank <2.5			Rank ≥2.5		
Frequency ≥ 15	Association	16	2.37	Assembly	17	3.56
	Activism	35	2.4	Collaboration	27	3.5
	Involvement	20	2.1	Sharing	34	3.5
	Democracy	22	2.18	to decide	17	4.2
	Duty	22	2.95	Interest	18	3.86
	Engagement	33	2.18	Manifestation	32	3.15
	Mass	28	2.93	Opinion	15	3.56
	Communication	16	2.44	Politics	21	4.29
	Dissatisfaction	26	2.11	Unity	18	3.7
	Freedom	25	2.24	Vote	46	3.2
	Referendum	28	2.21			3.76
	Responsibility	25	2.32			3.59
	Scarce	16	1.93			
	Equality	16	2.31			
	Will					
	Elements of contrast			*Second periphery*		
	Rank <32.5			Rank ≥2.5		

Frequency 7≤F<15	Absenteeism	9	2.44	Missing	11	3
	Change	9	2.33	Fight	7	2.86
	Communication	7	2.0	Civilization	13	2.54
	Community	14	2.29	Collectivity	7	2.57
	Control	7	2.43	Debate	11	2.91
	Culture	7	2.29	Awareness	8	2.5
	Rights	12	2.25	Growth	7	3
	Right to	11	1.82	Dialogue	9	2.56
	Disorganization	8	2	Uneven	13	2.77
	Education	7	1.57	Arguing/Discuss	7	2.71
	Expression	12	2.08	ion	14	2.5
	Fundamental	13	1.85	Election	10	3.2
	Ignored	10	2.4	Untruth	13	3.15
	School Education	7	1.71	Ineffective	8	2.87
	Chance	7	2.14	Work	9	2.56
	Revolution	8	2.37	Honesty	11	2.73
	Solidarity	7	2.43	Political Parties	7	2.57
	Support	11	2.45	Respect	14	2.86
	Transparency	10	2.2	Choice	12	2.92
	Utility	11	2.36	Society	8	2.87
				Development	11	2.73
				Charity		

2. Positioning: same contents but varied internal organization?

To what extent and how does the subjective positioning of individuals contribute to shaping the internal organization of the social representations of democracy and participation? Are there detectable differences in the structure of the social representations of the two objects in accordance with the degree of identification of participants with their community of residence? Does the strength of the identification with the national country favour the surface of variations in the organization of the social representations of the key topics?

2.a democracy. Low VS. high local identity groups

In general, regardless of the degree of identification with the local community, the participants converge towards a common stable set of significant referents. In fact, a deep scrutiny of the outputs shown in Table 7.17 (i.e. high local identity) and in Table 7.18 (i.e. low local identity) reveals that the content of the central core and the first periphery seems quite stable across both the conditions, thus strengthening the idea that institutional and representative facets of democracy are pivotal to the social understanding of this topic.

Table 7.17. Democracy- Prototypical analysis for high local identity positioning

	Nucleus			*First periphery*		
	Rank <3. .00			Rank ≥3.00		
Frequency ≥ 11	Citizenship	11	2.45	Duty	17	3.35
	Rights	45	2.42	Government	29	3.97
	Justice	28	2.93	Body of Law	11	4
	Freedom	95	2.98	Politics	11	4.55
	Participation	41	2.8	Power	15	3.67
	Population	71	2.62	Vote	36	3.86
	Respect	23	2.82			
	Equality	76	2.85			
	Elements of contrast			*Second periphery*		
	Rank <3			Rank ≥3		

Frequency 4≤F<11	Common good	4	2	Listening	8	3.5
	Discussion	5	2.6	Wellbeing	5	3.6
	Constitution	4	2.75	Civilization	4	3.75
	Dialogue	6	2.83	Collaboration	7	3.71
	Equity	8	2.5	Community	7	3.57
	Important	4	2.25	Sharing	8	3.25
	Italy	4	2	Cooperation	4	3.75
	Loyalty	4	2.5	Culture	5	3.8
	Lawfulness	8	2.12	Decision	8	3.37
	Fundamental	9	2.88	Illusion	5	3.4
	Freedom	4	2	Work	6	3.5
	Order	7	2.86	Liberalism	5	3.2
	Peace	4	1.75	Opinion	4	4
	Equal	9	2.66	Representative	6	3.5
	Opportunities	9	2.77	ness	9	3.44
	Equivalence	5	3	Choice	6	4
	Popular	4	2.25	Society	9	3.33
	Sovereignty			Solidarity	7	3.14
	Transparency			Utopia		
	Values					

In general, the kernel of both the representations replicates the valuable components constituting democracy already described in the overall representation. However, a major variation emerges: whereas the low local identity positioning interlaces with a communitarian view evoked by the term *sharing* and *fraternity*, the high local identity positioning intersects a normative/regulatory view as suggested by the words *duty* and *body of law*.

The examination of the elements of contrast and the second periphery of both the social representations reveals that the more the interviewees establish a solid attachment to their community, the less they are involved in the social and cooperative aspects of democracy. In fact, Table 7.18 reveals that these constituents are almost all included in the second periphery of the social representation - see, for example the terms *collaboration*, *community*, *sharing* and *cooperation*. In addition, some pieces in the contrast area depict the regulatory shape of democracy that also characterizes the first periphery, as shown by the terms *Constitution*, *lawfulness*, *order*, and *peace*.

In contrast, Table 7.19 indicates that the detachment from the context of everyday life reflects a lower degree of internal consistency of the social representation of democracy. In fact, the semantic elements featuring the content of the representation are somewhat scattered across the sections of the representation structure, especially when approaching the peripheral border, suggesting that a feeble link to the local community goes with a disaggregated periphery which, however, does not challenge the content of the nucleus of the representation. In addition, it should be point out that the legal features of democracy – evoked by the terms *body of law*, *lawfulness* and *law* – appear to be almost unimportant.

Table 7.18. Democracy- Prototypical analysis for low local identity positioning

Nucleus	*First periphery*
Rank <3. .00	Rank ≥3.00

Frequency ≥ 9	Citizenship	9	2	Sharing	11	3.81
	Constitution	9	2.56	Fraternity	9	3.33
	Rights	21	2.33	Government	23	3.69
	Justice	15	2.93	Politics	12	4.08
	Freedom	108	2.14	Power	15	3.67
	Participation	41	2.48	Choice	11	3.18
	Population	61	2.67	Vote	23	3.48
	Respect	29	2.67			
	Equality	72	2.47			
	Elements of contrast			*Second periphery*		
	Rank <3			Rank ≥3		
Frequency 3≤F<9	Autonomy	3	2.33	Openness	3	4
	Collaboration	6	3	Listening	5	3.8
	Community	4	2.75	Civilization	5	3.4
	Decision	7	2.71	Discussion	5	4
	Dialogue	5	2.8	Demagogy	3	5
	Direct	3	2.33	Duty	7	3.86
	Body of Law	6	2.5	Election	5	3.6
	Dictatorship	4	3	Equity	6	3.67
	Lie	3	2.67	Speech	6	3.5
	Idealism	3	3	Greece	4	3.25
	Work	3	3	Illusion	5	3.8
	Freedom of	5	3	Lawfulness	4	3.25
	Thought	3	2.33	Law	7	3.14
	Oligarchy	6	2.83	Meritocracy	3	3.66
	Equivalence	4	2.5	Opinion	3	4
	Thought	3	3	Opportunity	8	3.87
	Republic	4	2.25	Saying	4	3.5
	Popular	3	2.66	Representative	5	3.4
	Sovereignty	4	2.75	ness	4	3.25
	Tolerance	7	1.57	Referendum	5	3.4
	Unity			Responsibility	8	4.25
	Utopia			Solidarity	3	4
				Sovereignty	3	3.33
				Hope	5	3.2
				State	7	3.43
				Transparency		

2.b Democracy. Low VS. high national identity groups

The degree of identification with the national country seems to be scarcely relevant to the variations of the internal organization of the social representations of democracy. In fact, a thorough examination of the results displayed in Table 7.19 (i.e., high national identity positioning) and Table 7 (i.e., low national identity positioning) does not reveal any remarkable differences. In other words, both those who strongly identify and those who weakly identify with their country share a similar organization of the representational contents that characterize the social understanding of democracy.

Table 7.19. Democracy- Prototypical analysis for high national identity positioning

Nucleus	*First periphery*
Rank <2.9	Rank ≥2.9

Frequency ≥ 12	Citizenship	12	2.08	Duty	12	3.08
	Rights	33	2.39	Justice	34	2.97
	Freedom	115	2.1	Government	18	3.94
	Participation	42	2.48	Law	12	3.66
	Population	69	2.65	Politics	16	4.5
	Equality	91	2.7	Power	12	3.25
				Respect	29	2.97
				Vote	31	3.55
	Elements of contrast			*Second periphery*		
	Rank <3			Rank ≥3		
Frequency 5≤F<12	Sharing	9	2.89	Listening	5	3.4
	Constitution	6	2.5	Civilization	6	4
	Body of Law	8	2.5	Collaboration	7	3.14
	Important	5	2	Community	5	3.4
	Lawfulness	7	2.57	Discussion	5	3.2
	Liberalism	5	2.6	Culture	5	3.6
	Equivalence	6	2.67	Decision	9	3.33
	Responsibility	5	2.6	Dialogue	10	3
	Popular	5	2.4	Election	10	4.4
	Sovereignty	6	2.33	Equity	5	3.4
	Transparency	8	2.62	Fraternity	5	3.6
	Utopia			Illusion	7	3.57
				Work	5	3.8
				Loyalty	5	3
				Freedom of Thought	5	3.4
				Modernity	5	3.2

In the main, whatever the degree of identification with the country of origin, the overall structure of the representations shapes a meaning of democracy as a legally constituted form of *government* assigning power to the *population* that exerts it by voting.

On the one hand, *freedom*, *participation*, *equality* and *rights* are confirmed to be central values to both the subjective placements. On the other, *citizenship*, *justice*, *respect* emerged to be unfixed contents that migrate from the center – where they are included in high national identity – to the first periphery and even the area of contrast – where they are incorporated into low national identity.

Additionally, it is easy to notice that a remarkable difference concerns the first periphery and the contrast zone of the two social representations, which in high national identity are richer in variety. Furthermore, the participants who somewhat devalue their relation with the country of origin almost neglect the social and communitarian dimension of democracy that characterizes the second periphery of the representation, as indicated by the words *collaboration*, community, *sharing*, and *fraternity* (i.e. Table 7.20).

Table 7.20. Democracy- Prototypical analysis for the low national identity positioning

Nucleus	*First periphery*
Rank <2.9	Rank ≥2.9

Frequency ≥ 11	Rights	26	2.38	Duty	12	3.92
	Justice	31	2.74	Government	16	3.93
	Freedom	88	2.01	Power	17	4
	Participation	40	2.82	Vote	19	3.68
	Population	56	2.46			
	Respect	23	2.43			
	Equality	57	2.61			
	Elements of contrast			*Second periphery*		
	Rank <3			Rank ≥3		
Frequency 5≤F<11	Citizenship	8	2.5	Listening	8	3.75
	Constitution	7	2.71	Collaboratio	6	3.67
	Discussion	8	2.66	n	5	3
	Body of Law	5	2.4	Community	10	4.2
	Equity	9	2.78	Sharing	5	3.4
	Lawfulness	5	2.4	Discussion	5	3.8
	Equivalence	9	2.77	Election	5	3.6
	Utopia	6	2	Speech	7	3.57
				Fraternity	5	3.6
				Greece	5	4.2
				Opinion	7	3.71
				Opportunity	7	3.86
				Politics	5	3.4
				Representati	9	3.11
				veness	7	3.86
				Choice	6	3.83
				Solidarity	5	3.4
				State	6	4.17
				Tolerance		
				Transparency		

2.c Citizen participation. Low VS. high local identity groups

The consideration of the subjective positioning of participants towards the local community disclosed that *engagement* and *involvement* give substance to the nucleus of the social representation of participation together with *duty*, *freedom* and *mass communication*. In case of a weak identification with the place of residence, the nucleus of the representation mainly evokes the idea that individuals are free but are expected to take part in social life and express their opinion, as suggested by the words *active*, *collaboration*, *democracy*, *responsibility*, and *expression*. Such a view seems to be consistent with the notion of democracy as a form of government based on people's participation. In contrast, in case of a strong identification with the place of residence, the kernel of the representation is composite and controversial. In fact, evaluative and emotional features overlap, as displayed by the words *fundamental*, *usefulness*, *indifference* and *frustration*.

On the one hand, Table 7.21 (i.e. low local identity) shows that political participation – see the terms *vote*, *politics*, and *political parties* – and social participation – see the words *sharing* and *manifestation* - intersect in the first periphery suggesting that participation is meant as a medium whereby people express their voice and take part in decisions. On the other hand, Table 7.22 (i.e. high local identity) reveals that the positive attachment towards the context of everyday life leads to an articulate representation of participation where judgmental referents intersect descriptive referents just as collective and individual elements overlap each other, as evoked by the terms *collaboration*, *sharing* and *unity* together with the words *will* and *interest*.

Table 7.21. Citizen participation- Prototypical analysis for low local identity positioning

	Nucleus			*First periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency ≥ 8	Active	8	1.87	Sharing	17	2.59
	Involvement	9	2.33	to decide	8	3
	Collaboration	10	2.3	Manifestation	12	2.67
	Democracy	10	1.8	Political Parties	8	2.75
	Duty	11	1.54	Politics	10	2.7
	Expression	8	2.12	Vote	20	2.75
	Engagement	12	2.25			
	Mass	13	1.46			
	Communication	12	1.92			
	Freedom	11	1.91			
	Responsibility					
	Elements of contrast			*Second periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency 4≤F<8	Equality	7	1.86	Community	7	2.57
	Will	7	2	Debate	7	3.14
	Right to	6	2.33	Interest	7	2.71
	Referendum	6	2.17	Activism	6	2.5
	Election	5	2.4	Discussion/arguing	6	2.83
	Fundamental	5	1.6	Untruth	6	2.83
	Scarce	5	1.6	Choice	6	3.0
	Common good	4	2.25	Transparency	6	2.83
	Dialogue	4	2.0	Association	5	2.8
	Haphazard	4	1.750	Confused	5	2.6
				Ineffective	5	3.4
				Opportunism	5	3
				Charity	5	2.6
				Extended	4	3.75
				Change	4	2.5
				Civilization	4	2.5
				Indifference	4	2.5
				Honesty	4	2.5
				Opportunity	4	2.5
				Respect	4	2.5
				Result	4	2.75
				Society	4	3.5
				Union	4	2.5

The overview of the elements of contrast reveal that, in the low local identity condition, *will* and *right to* are two controversial components: although their frequency values are quite low, their rank is quite high. In addition, the dialogical confrontation remains a negligible aspect, as indicated by the words *debate* and *discussion/arguing* that are both included in the second periphery together with several evaluative terms that suggest a clash with participation. In fact, on the one hand, *activism*, *transparency*, *extended*, *civilization*, *honesty*, *respect* and *union* call for the positive components of participation. On the other side, *untruth*, *confused*, *ineffective*, *opportunism*, and *indifference* indicate the detrimental correlates of this topic.

There are three key aspects that characterize the contrast area in high local identity (Table 7.22); these are collectivity (see the words *association*, *community*, *society*, *equality* and *solidarity*), education (see the words *education* and *school education*), and normativity (see the words *rights*, *right to* and *control*). Finally, it is interesting to notice that as the second periphery is approached, the evaluative terms almost disappear whereas dialogical confrontation surfaces although it is almost insignificant to those who developed a solid bond to the local community.

Table 7.22. Citizen participation- Prototypical analysis for high local identity positioning

	Nucleus			*First periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency ≥ 13	Assembly	10	2.2	Lacking	26	2.58
	Involvement	11	1.91	Collaboration	17	2.7
	Indifference	18	2.17	Sharing	15	2.67
	Duty	10	2.4	Democracy	12	2.5
	Frustration	15	2.33	Intermittent	10	2.6
	Fundamental	11	2.45	Interest	14	2.57
	Engagement	17	2.41	Manifestation	23	2.52
	Mass	15	2.2	Politics	14	2.86
	Communication	13	2.38	Development	10	2.8
	Freedom	19	2.26	Unity	10	2.6
	Referendum	17	2.41	Will	10	2.8
	Responsibility	10	2.3			
	Usefulness	26	2.46			
	Vote					
	Elements of contrast			*Second periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency 4≤F<13	Association	9	2.44	Activism	9	3.0
	Active	9	2.11	Fight	5	2.6
	Change	5	2.2	Civilization	8	2.62
	Community	6	2.17	Election	5	3
	Control	5	2.2	Debate	7	2.71
	Rights	9	2.22	Confusion	6	3.5
	Right to	5	1.2	Awareness	5	2.6
	Education	7	1.43	to decide	8	2.87
	School education	5	2	Dialogue	5	3
	Opinion	8	2.37	Future	5	.2.8
	Society	5	2.4	Ineffective	6	3.17
	Solidarity	5	2.2	Work	5	2.8
	Equality	9	2	Revolution	8	2.62
				Choice	7	2.86
				Support	6	2.83
				Time	5	2.8

2.d “Citizen participation”. Low VS. high national identity groups

A closer look at Table 7.23 and Table 7.24, which display the internal structure of the social representations of participation typical of, respectively, low and high national identity positioning, unveils a marked difference between the central parts – i.e. nucleus and the first periphery – and the peripheral parts – i.e. the contrast area and the second periphery. In fact, the former are quite essential: especially in low national identity, the kernel is characterized by *mass communication* and *engagement*, whereas the first periphery covers both traditional and unconventional forms of participation, namely *voting* and *demonstration*.

For those who established a robust identification with the country of origin, the participation is anchored to the institutionalized context, as indicated by the words *democracy*, *Referendum*, and *vote*. At the same time, participation elicits the individual *responsibility* to cooperate with others (see, for example, the terms *active* and *engagement* in the central nucleus as well as *sharing* and *collaboration* in the first periphery).

Table 7.23. Citizen participation- Prototypical analysis for low national identity positioning

Nucleus	**First periphery**
Rank <2.5	Rank ≥2.5

Frequency ≥ 12	Engagement	12	2.25	Sharing	16	2.62
	Mass	13	1.46	Demostration	13	2.77
	Communication			Vote	20	2.75
	Elements of contrast			*Second periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency 4≤F<12	Duty	11	1.54	Politics	11	2.73
	Responsibility	11	1.91	Unity	10	2.5
	Collaboration	10	2.3	Opportunism	9	3.11
	Democracy	10	1.8	Political parties	8	2.75
	Expression	10	1.8	To decide	8	3
	Active	9	1.78	Transparency	7	2.57
	Involvement	9	2.33	Choice	7	2.86
	Disorganized	9	2.22	Untruth	7	2.86
	Freedom	8	1.75	Debate	7	3.14
	Equality	7	1.86	Community	7	2.57
	Will	7	2	Association	7	2.86
	Right to	6	2.33	Society	5	3.4
	Referendum	6	2.17	Ineffective	5	3.4
	Activism	5	2.4	Extended	5	3.8
	Election	5	2.4	Charity	4	2.75
	Fundamental	5	1.6	Respect	4	2.5
	Common Good	4	2.25	Opportunities	4	2.5
	Dialogue	4	2	Honesty	4	2.5
	Unable	4	2	Interest	4	3
	Scarce	4	1	Indifference	4	2.5
	Socialization	4	2	Debate/arguing	4	2.5
				Civilization	4	2.5
				Change	4	2.5

Noticeably, the contrast area and the second periphery are composite in both high and low national identity positioning. In particular, several aspects that emerged to be relevant to the general social representation of citizen participation (see Table 7.16) moved to the peripheral contour of the structure in the low identity condition, such as for example *responsibility*, *duty*, *will*, *Referendum* and *involvement*.

Finally, there are few evaluative referents and they converge towards the second periphery of the representations in both states.

Table 7.24. Citizen participation- Prototypical analysis for high national identity positioning

	Nucleus			*First periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency ≥ 7	Active	13	2	Collaboration	13	2.92
	Democracy	13	2.15	Sharing	13	2.61
	Engagement	13	2.15	Responsibility	17	2.53
	Mass	15	1.87			
	Communicatio	13	2.15			
	n	14	2.21			
	Freedom	22	2.41			
	Referendum					
	Vote					
	Elements of contrast			*Second periphery*		
	Rank <2.5			Rank ≥2.5		
Frequency 3≤F<7	Duty	12	2.17	Manifestation	12	2.92
	Scarce	12	2.33	Politics	12	3
	Involvement	11	2	Random	10	2.5

	Fundamental	10	2.1	Will	10	2.5
	Equality	10	1.9	Assembly	8	3.37
	Community	7	2.29	Rights	8	2.75
	Lawfulness	6	2	Election	8	2.5
	Right to	5	1	Interest	8	2.75
	Trust	5	2.4	Opinion	8	2.5
	Usefulness	5	2.4	Activism	7	2.85
	Change	4	1.75	Civilization	7	2.71
	Culture	4	2	Frustration	7	2.86
	Group	4	1.75	Choice	7	2.71
	Honesty	4	2.25	Unity	7	3.17
	People	4	1.75	Lacking	6	3.17
	Chance	4	2	Growth	6	2.67
				Dialogue	6	3.17
				Justice	6	2.5
				Solidarity	6	2.6
				Debate	5	3.2
				to decide	5	2.8
				future	5	3
				political	5	3.4
				parties	5	2.6
				power	5	3.25
				society	4	2.75
				Association	4	3
				Collectivity	4	3
				Awareness	4	2.5
				Discussion/arg	4	3
				uing	4	2.5
				Efficient	4	3
				Government	4	2.5
				Ignored	4	3
				Ineffective	4	
				Work		
				Movement		

7.4.d. <u>Summary and Discussion</u>

The topics of democracy and participation *"refer to the public sphere and are deeply interwoven with the ... identity of individuals and groups"* (Proposal, p. 14).

In fact, the topological analysis of the social representations of democracy and participation revealed that the social views of the two objects interlace with the relationships that the interviewees established with the social context and in particular with the realm of their everyday life. The social understanding of the two core topics is based on a set of cognitive references shared by all participants. At the same time, the degree of identification with the place of residence favoured the emergence of variations in the structural organizations of these common references so that different meanings could be detected in accordance with the degree of local identity of the interviewees.

To be precise, the topological analysis showed that the social understanding of the social objects democracy and participation engenders institutional and conventional meanings that above all evoke the basic relationship between the citizens and the state and, in the second stage, how the citizens connect to each other. *In fact, the kernel and the first periphery of both the representations portray the public asset that enables citizens to exercise their rights, to have equal opportunities and be treated similarly, to express their point of view and to take part in the process of decision making*.

However, some content particularities distinguished the social views of the two topics. Indeed, focusing on the topic of democracy, the findings indicated that *the content of the social representation is nearly* abstract, suggesting that *this social object is somehow detached from the everyday life experience of the interviewees, who resorted to principles and values and used them as stereotyped referents*. In fact, the participants seemed to share *an ideal vision of Democracy, while the concrete aspects seemed to be quite unimportant* in the construction of the social meaning that they associate to this topic. In fact, the actual components are included in the second periphery of the structure and seem to be a replica of the positive elements that characterize the central nucleus, ultimately contributing to generate a positive but redundant representation.

A partially diverse picture derived from the results of the topological analysis of the social representation of the topic of participation. In detail, the findings indicated that the social understanding of this subject is more *controversial, evaluative, and affectively connoted, with positive and negative attributes* mixing together. Specifically, on the one hand, the institutional constituents strengthen the core of the social representation (as for democracy), thereby corroborating the idea that the comprehension of this topic mainly challenges how citizens connect to their state and government according to the rule of law.

On the other hand, unlike what emerged for the social representation of democracy, the issue of Participation stimulated the emergence of thoughtful views that illuminated the significance of *individual agency* in shaping the personal involvement of citizens in public and collective life. Specifically, the social view of interviewees seemed to encapsulate a twofold meaning encompassing both the *responsibility of individuals to contribute towards a better social and political environment* and their actual willingness to accept such a personal responsibility. In addition, the ambivalence of the attitudes of the interviewees concerning this social object and the emotional responses that characterize the experience of engagement in both political and social participation bring to life the social representation of the key topic. Apparently, the evaluative associations portraying the social understanding of participation do not form a coherent figure, suggesting that this is *a conflicting object of knowledge where opposing themes are expressed,* such as, for example, development/growth vs. wastefulness, cooperation vs. selfishness, hope vs. despair, lawfulness vs. lawlessness.

However, the consensus of the interviewees that grounds the social representations of the topics of democracy and participation in dynamic rather than acquiescent. In particular, the focus on the subjective positioning of the interviewees towards their place of residence, and hardly ever towards their country of origin, allowed varied meaningful constructions to be detected in the way the interviewees become accustomed to the common cognitive map that interlaces institutional and political repertoires. Indeed, *the degree of identification with the everyday life context contributed to the emergence of noteworthy variations in the organization of these repertoires. By contrast, the strength of attachment with the nation seemed to be almost unimportant*. Therefore, shedding light on the national identity of the participants did not further the emergence of significant variations in the way individuals adjust the shared representational contents of democracy and participation.

In general, the dissimilarities in the degree of local identification of the interviewees reverberated in the internal organization and coherence of the structure of the social representations of the two objects. *Those who established a feeble bond with the context of everyday life evoked an opaque picture of democracy and participation. On the contrary, the participants who established a solid attachment to local community fabricated a richer, more transparent and understandable representation of both these issues*. Based on these findings, we might cautiously suggest that the more people establish a positive relation with the everyday life context, the more they can be encouraged to engage in community life ultimately reaching a subtle understanding of the significant topics under scrutiny.

Both low and high local identity participants agree with a "communitarian" view of democracy, where collective interests prevail over individual ones. Such a view draws upon two predominant themes that are linked in a figure-ground relationship. Precisely, *the social representation shared by the interviewees with a strong local identity privileged a more normative view of Democracy*,

where social and legal order fuels the core of the representation, and collectiveness and solidarity characterize the periphery (i.e., normative positioning). In the opposing position, the *participants who felt less attached to the local community shared a communal image of democracy*, where public and mutual components distinguish the kernel of the representation, and the legal attributes rest in the background (i.e. communal positioning).

Regardless of the degree of identification with the local community, the interviewees adhere to *an agentic view of participation*, insofar as they recognize the importance of the individual will and responsibility with respect to both the political and the social forms of participation. Nonetheless, the robust bond with the local community is intertwined with a reflective picture that incorporates both descriptive and judgmental referents. In detail, *the positive attachment to the place of residence encouraged the interviewees to challenge the consolidated social view of the topic of participation*. In fact, although such a polemical standpoint apparently neither contested the structure of the representation nor introduced any remarkable change in its general meaning, it disclosed a *critical positioning*. We may cautiously suggest that the interviewees who develop a solid bond with their local community are likely to be more responsive and interested in participation.

Finally, the topological analysis revealed that media communication is a cognitive component of the core of the social representation of the topic of participation that remains stable across all the conditions. Even if the data collected did not permit us to infer how and to what extent media communication might affect citizens' participation, they suggest that the relationship between these two aspects is significant and should be carefully considered.

8. SUMMARY

This deliverable has reported main findings of the analyses of the cultural milieu characterizing European societies. The analysis focused on a sample of 11 European Counties distributed over the whole European space (Cyprus, Denmark, Estonia, France, Germany, Greece, Malta, Italy, Netherlands, Spain, UK). A multi-method and multi-object approach was adopted, which integrated three paths of analysis:

- A general and abstract level of analysis aimed at mapping the structure of the European cultural milieu as a whole, in terms of the basic affective-laden dimensions of meaning (*semiotic lines of force,* in the terminology adopted) making it up.
- The main *symbolic universes* characterizing the European cultural milieu were identified – where each symbolic universe can be considered as a generalized worldview in terms of which lived experience – therefore identity – is shaped.
- The role played by symbolic universes in shaping individual and social life were esteemed at five levels of analysis: a) at the micro-genetic level – in terms of how the symbolic universes are associated with peculiar embodied patterns of lived experience; b) at the psychological level – in terms of the relation symbolic universes show with individual characteristics as modalities of reasoning, personality traits, cognitive models, beliefs, attitudes and values; c) at the social level – in terms of how relevant topics (health, participation, subjectivity, homosexuality, immigration, Islam) are represented in the media; d) at the macro-social level –in terms of how symbolic universes are associated with socio-economic differences over European territories; e) at the level of the attitude toward Europe – in terms of the capacity of the association between characteristics of the cultural milieu and the results of the Brexit referendum).

The main findings of these analyses can be summarized in the following points.

First, the approach adopted allowed us to map the European societies' cultural milieu as a whole. This map is not an oversimplification that underestimates the specificities of European societies. This is because it concerns an abstract, generalized level of analysis, focused on basic dimensions of meaning (*semiotic lines of force,* in the terminology adopted). Accordingly, the fact that the map encompasses the European societies as a whole does not mean that the latter share the same culture; rather, the method adopted allows us to understand differences among European societies in terms of a unifying generalized standpoint. In so doing, variations both between territories and over time can be interpreted according to a common framework of analysis – and this allows for comparative analyses, benchmarking, transference of knowledge, modulation of policies and so on and so forth.
More particularly, 3 semiotic lines of force have been detected, each of them consisting of two opposed meanings.

Line of semiotic force 1. AFFECTIVE CONNOTATION OF THE WORLD – *foe vs. friend*
The first factorial dimension polarizes two opposite generalized ways of connoting the field of experience as a whole. On the one side a positive connotation that qualifies the world as a fine, trustworthy object, juxtaposed to a negative connotation qualifying it as unfair, meaningless and unreliable. Accordingly. we interpret the factorial dimension as the marker of a line of semiotic force consisting of the very basic *affective connotation of the world* in terms of the generalized opposition *foe/friend*.

Line of semiotic force 2. DIRECTION OF DESIRE - *Passivity vs Engagement*
This line of semiotic force concerns the *direction of the desire,* namely the position assumed with respect to the world: *Passivity* versus *engagement*. In the final analysis, this line of semiotic force concerns with the feeling of the world as the source of a movement directed towards the subject — or, on the contrary, as the goal of the subject's investment.

Line of semiotic force 3. FORM OF DEMAND – *demand for systemic resources vs. demand for community bond*

This line of semiotic force consists of the opposition between two *forms of demand,* namely two basic views of the fundamental sense in terms of which the subject defines itself in relation with a complementary connotation of the world: the *demand for systemic resources* versus the *demand for community bond*. This dialectics can be viewed as the dialectics between demand for functionality *versus* demand for meaning and identity, each of them associated with a peculiar anchorage - the social system and the community, respectively.

Second, and consistently with the previous point, it has been possible to highlight how the generalized dimension of meaning of the cultural milieu are enacted in the way relevant topics (namely, health, Islam, immigration, homosexuality, participation, subjectivity) are represented in the media: the more the topic implies an affect-laden demand of identity (as in the case of Islam, homosexuality and immigration, in particular), the more its representational structure is similar to that of the general cultural milieu. This is a relevant result because it suggests that the representation of topics does not depend on the inner aspect of the topic, only but also on the more general cultural milieu; accordingly, the way of representing (discussing, connoting) the topic is the main route towards addressing symbolic universes.

Third, the analysis mapped 5 *symbolic universes,* each of them interpretable as a basic world view substantiating an anthropological profile.

Symbolic universe 1. *Ordered universe*

The profile is characterized by extreme responses. Faith in people, sense of agency and possibility of contributing to make things better, rejection of power, opportunism and conformism, solidarity, sharing, commitment, valorisation of otherness, centrality of values in life. People do not act out of economic interest, but in reason of the need of making life meaningful. Rightness, morality and efficacy go together because of the deep belief in the fact that the world has its own inherent order and one has to find one's place in it. This makes a person confident about the future, which can only be better.

The experience of being part of meaningful, vital interpersonal bonds is what makes life meaningful and fulfilling. To be part of interpersonal bonds, based on common values, trust and reciprocity means having shared needs in the foreground. Thus, belonging to vital linkages requires adhesion, but it means being able to count on the power of the group and to pursue a fulfilling life.

Symbolic universe 3.*Caring society*

Full trust in society - its agencies, and institutions, that take care of people's requests [C3.8], that are fostered by a demand for safety. Such trust fosters the generalized feeling of confidence in people, agency and projectuality as well as the sense that the world is going as it has to go.

Symbolic universe 4. *Niche of belongingness*

Fatalism and lack of projectuality, feeling of being immersed in an anomic context, lack of control on one's life. Low trust in people as well as institutions and agencies. Moderate pessimism about the present and the future. Centrality of being part of the primary network. Belonging is not the place of meaningful experiences of bond and reciprocity; rather, it is a system one has to join in order to gain protection from being damaged by the threatening outside and to get back control over one's life. It involves the need to understand and adhere to the group's rule, in spite of the fact that this means going beyond ethical constraints.

Symbolic universe 5. *Others' world*

People are untrustworthy, motivated by selfish aims. Things are going badly and will be far worse in future. Institutions and agencies are completely unreliable and unwilling to accept people's requests. The world – and one's life - belongs to those who have power [C5.17; C5.39] and get success by using it without scruples. Plans and efforts for the future are useless as well as values, rules and bonds, because no change can be promoted and things go in accordance to chance. All one can do is to survive, by adjusting living day-by-day and affiliating oneself to winners– even if this means giving up ethical and social constraints. This choice is the only chance to keep one's life in one's own hands, though it means assuming the avoidance of sufferance as the only possible purpose.

Fourth, the analyses highlighted how certain cultural elements (i.e. a certain mix of symbolic universes and lines of semiotic force) work as resources for socio-economic and civic development as well as for European cohesion.

- People identified with the symbolic universes considered above as cultural resource (*ordered universes and caring society*) were marked by functional forms of thinking (risk propensity, flexibility), openness to experience, commitment to relating, positive feelings, valorisation of otherness.
- Symbolic universes showed to affect not only cognition – i.e. beliefs, representations, opinion – but also embodied patterns of subjective activation – more specifically the way of distributing attentional focus viewing an image containing significant political content. Persons associated with symbolic universes reflecting openness to the world (*ordered universes and caring society*) showed highre level of explorativity in viewing the image than persons characterized by other symbolic universes.
- There is an association between a higher rate of unemployment and incidence of the anomic form of sensemaking (*i.e*. the world as *foe*).
- UK regions where the proportion of Leave votes at the recent Brexit referendum was higher were differentiated from the regions with lower level of Leave in terms of a combination of cultural markers; more particularly, findings highlighted the role played by the incidence of the symbolic universes: *interpersonal bond* and *niche of belongingness* – i.e. the two symbolic universes characterized by the relevance of the identity network.

Fifth, it is worth noting that the symbolic universes associated with psychological and sociological positive conditions (*ordered universe* and *caring society*) are those characterized by the combination of two aspects: on the one hand, the aptitude to enter constructive relationships with the world (e.g. trust in the future and institutions, commitment to rules and civic participation); on the other hand, the recognition that life is more than situated, lived experience (i.e. the domain of one's subjectivity and the primary bond) since it is part of a higher-order, abstract – systemic – framework (i.e. the domain of the secondary bond, the collective sphere – what we have defined: the *domain of the relation with the third*, which constrains lived experience and at the same time provides it with sense and perspective.

Sixth, the cultural resources provided by these two symbolic universes proved to be rather scarce; they were limited to about 25% of the sample (though with differences among countries). On the other hand, the analyses showed that the European cultural milieu is characterized by quite a critical incidence of anomy – namely the proportion of people expressing a worldview (*symbolic universes,* in the terminology adopted) that views experience in terms of impotence, lack of sense, being subjected to an unreliable, violent context. About 40% of the sample (with differences among countries in this case too) is embedded within this area of the cultural milieu (corresponding to two symbolic universes: *others' world* and *niche of belongingness*). Although this esteem could be subjected to a certain degree of error of measurement, the dimensionality of

the finding is quite critical - it is hard to imagine a society characterized by such a degree of anomy which can reproduce itself in the medium term. This is because anomy is not only a way of thinking, but a form of life, a way of acting experienced by all the members of the social group. Therefore, it is a highly relevant factor in the erosion of social rules and institutions: acts fostered by anomic worldviews cause social alarm and a weakening of trust in the social order; this in turn reinforces and spreads the anomic worldview, as a self-fulfilling prophecy.

Taken as a whole. these findings show that the knowledge of the cultural characteristics could provide a precious source of information for understanding psycho-social and social phenomena – both in their critical and potential aspects - and the way of dealing with them.

9. GLOSSARY

Abductive logic. This kind of knowledge building consists of the inference of the phenomenon through the empirical clues available. It is aimed at defining the minimal phenomenon whose (past or current) presence makes the clues meaningful. The phenomenon is reconstructed due to the fact that it works as the grounds of the plausibility of their co-occurrences. Peirce (1897/1932) called this kind of inference the "unification of predicate"– if C (Phenomenon) is assumed, then the co-occurrence of A and B comes to be meaningful; therefore C is, and accordingly A and B can be unified as a whole. For instance, take the policemen, who realizes that pieces of glasses are on the floor, under a broken window, and footprints spread around the room. These co-occurring clues are mute, meaningless, part of the same background where infinite other elements co-occur together with them (e.g. the colour of the wall, the temperature of the room…). As soon as the policemen abducts a phenomenon working as the scenario of the clues– "someone must have broken the window to get inside" – the clues enter a gestalt, acquiring plausibility, then sense. Insofar as this happens, the reconstruction comes to be a meaningful inference as well.

Attractor. An attractor is a state of the system toward which this tends to evolve, for a more or less large set of starting conditions. An attractor can be represented in terms of a point or (a region) of the *phase space* (see below).

Co-occurrences. In the context of the current report, the term is used to indicate the fact that two or more elements (e.g. facts, characteristics) – namely a profile - are present in the same space-time unit. This co-occurrence is the starting point of *abductive logic*. Indeed, according to this logic, the profile of co-occurrence can be interpreted as the indicator of a phenomenon.

Field. A field is a higher order dynamics emerging from the local interaction of elements and exerting a downward causality on them. To conceive of a phenomenon in terms of field means to assume that elements are interconnected with each other and the behaviour of all of them is "enslaved" to the field dynamics.

Latent dimension of sense. The latent dimensions of sense are the generalized meanings that serve as implicit assumptions backgrounding and channelling the way people think, feel, decide and act.

Line of force. A line of force describes the direction and the magnitude of the field dynamics at that point. Accordingly, a line of semiotic force models the capacity of the semiotic field to channel the trajectory of signs (i.e. the transitions among signs).

Phase space. The phase space is a space each point of which represents a unique state of the system. Thus, one can map the evolution of the system in terms of the trajectory it follows on the phase space.

Reliability. It is the capacity of a measure to detect its object in a precise, invariant way, regardless the different moments of time and conditions of application. Inter-rater reliability is the degree of convergence of different researchers applying the measure.

Scenario. A pattern of intertwined events and characteristics that outline a potential evolution of the current state of facts. "Scenarios are a type of systems model that can be used to better understand the dynamics of social-ecological systems. They have some key differences from traditional, technically driven models. They are user-driven and can be developed in discussion with various stakeholders, they are flexible, accessible, and easily translated into art (..). Scenarios are often used as a tool for decision making or planning. The intention of scenario planning is to

consider a variety of possible futures that include the important uncertainties, rather than to focus on the accurate prediction of a single outcome. (Bennett, Carpenter, Peterson, Cumming, Zurek, & Pingali, 2003 p. 324). "A scenario is a coherent, internally consistent and plausible description of a possible future state of the world. It is not a forecast; rather, each scenario is one alternative image of how the future can unfold". (Intergovernmental Panel on Climate Change, IPCC, 2008)

Symbolic Universes. A symbolic universe is a context-specific, tendentially stable system of generalized meanings embedded within the cultural milieu, which shapes the way of interpreting the experience, the image the social actors have of themselves and their relation with the context in an immediate and implicit way - therefore their social identity.

Validity. The validity of a measurement consists in its capacity to lead to conclusions that accurately reflect the meaning of the measure, as defined by the theory. In the context of the WP3 analyses, the validity concerns the capacity of the interpretation of the statistical output (i.e. the factorial dimension) to reflect the symbolic content (i.e. the line of semiotic force) that according to the theory, underpins the output.

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11. INDEXES

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