



## Article

# Resilience as a Public Object. A Longitudinal Press Analysis of the Press Representations of Resilience in Italy, Spain, and France

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Received: 4 April 2019; Accepted: 10 June 2019; Published: 15 June 2019



**Abstract:** The notion of “resilience” has spilled over from the field of science and entered the field of policy, turning into a public and political object. The current study explores the social representations of resilience produced by press discourses between 2001 and 2017 in three different national contexts (Spain, France, and Italy), and examines the degree to which such representations incorporate technical and scientific meanings or rather include new components. A total amount of 1,298 articles published in three national newspapers (*La Repubblica*, Italy; *Le Monde*, France; and *El Pais*, Spain) were collected and analyzed for themes using the T-LAB software. The findings revealed more similarities than differences among the countries. The interest towards the topic increased over time, with the representations of resilience becoming more and more diversified and multifaceted. The technical and scientific components remained in the background, while a “practical theory” of resilience emerged, echoing the use of the concept in policy making, specifically in the European Union institutions approach.

**Keywords:** resilience; media analysis; semantic analysis; comparative study; social representations; automatized text analysis

## 1. Introduction

### 1.1. The Notion of Resilience

Since the early '70s ([Holling 1973](#)), the notion of resilience has been drawing the interest of numerous scholars of different disciplinary backgrounds, who have been debating whether it is a useful concept for comprehending the individual, the group, and systemic responses to rapid fluctuations. On the one hand, the scientific debate has highlighted that there is still little agreement on the definition and the operationalization of this notion ([Carpenter et al. 2001](#)), and that resilience is a promising research field that deserves to be furthered ([Manyena 2006](#)). Accordingly, the growing body of literature that has piled up in the last 50 years has either recommended caution in the use of terminology ([Kaplan 1999](#)), or called for the elaboration of more precise definitions, operationalization and measurement ([Davoudi et al. 2012](#)). It has required a clear-cut differentiation of resilience from other liminal concepts (such as vulnerability and adaptation) ([Folke et al. 2010](#)), while at the same time emphasizing the variety of meanings of resilience based on its multidimensional nature ([Matarrita-Cascante et al. 2016](#)), and the benefit of dialogue across disciplines and domains ([Luthar et al. 2000](#)). Finally, it has questioned linear relations between antecedents and outcomes ([Folke 2006](#)).

Just to give an example of how composite and inconclusive the scientific debate is, psychological research—after ecology, one of the disciplines where this concept has flourished—gradually extended its focus from individuals recovering from a trauma (see, among others, [Garnezy 1974](#)) to families ([Walsh 2003](#)), organizations ([Kendra and Wachtendorf 2003](#)), and local communities (among others: [Norris et al. 2008](#); [Sonn and Fisher 1998](#)) facing a variety of disasters and traumatic events, such as earthquake, climate change, terroristic attacks, and civil war ([Folke et al. 2016](#)). Yet even in psychology, resilience is anything but a univocal concept also defined as a “conceptual umbrella” that encompasses a broad variety of concepts and phenomena ([Masten and Obradović 2006](#)). Different definitions of resilience co-exist (see CARRI, [Community and Regional Resilience Institute 2013](#)), depending for instance on whether they view it as a status, that is an attribute of individuals or communities, or as a process, that is a person–environment dynamics ([Rose 2007](#)).

In this regard, on a microlevel, [Masten \(2001\)](#) specified that resilience is an inferential and contextual construct so as individuals can be referred to as resilient if there has been a substantial threat to their development and, despite such a verifiable menace, they achieved a good or proper adaptation. Moreover, in the field of human development individual resilience has been defined as “the dynamic process wherein individuals display positive adaptation despite experiences of adversity or trauma” ([Luthar and Cicchetti 2000](#), p. 81). Consistently, individual resilience revolves around three main dimensions, namely the achievement of positive outcomes despite adverse circumstances, the capacity for positive functioning in face of difficult events (i.e., coping) and the ability to recover from setbacks ([Brown 2016](#)). At the same time, on a macrolevel, according to [Matarrita-Cascante et al. \(2016\)](#) the conceptualization of community resilience focuses on three key aspects, i.e., the change, the context and the factors that contribute to resilience. First, resilience has to be considered as a process that takes place when the community undergoes a change activated by a stressor; second, it is a contextualized process since the nature of the stressor can vary and produce very different outcomes; third, the definition of community resilience depends on its contributing components ([Vaneekhaute et al. 2017](#)). For instance, [Norris et al. \(2008\)](#) define community resilience as the product of the interaction of four adaptive capacities, that is economic development, social capital, information and communication, and community competence. In the same vein, the Communities Advancing Resilience Toolkit (CART) identify four basic and interlaced domains that contribute to promote community resilience, they are connection and caring, resources, transformative potential, and disaster management ([Pfefferbaum et al. 2013](#)). The relation between the individual and the community level of resilience is an interesting and promising research topic. In fact, although several authors ([Buikstra et al. 2010](#); [Norris et al. 2008](#)) agree about the fact that community resilience is more than a conglomerate of resilient individuals as well as that a conglomerate of resilient individuals not necessarily forms a resilient community, it is still difficult to ascertain to what extent these two levels interact and influence each other.

A systematic review of the literature exceeds the scope of this paper. Rather, this article pursues the goal of detecting the meanings of resilience conveyed by the press system and, in particular, exploring the extent to which the concept presented in the press discourses incorporates technical and scientific components, or includes components that are not part of the academic debate.

### *1.2. Resilience as a Public Object: EU Directives and Guidelines*

Resilience is an object of practical significance that has been extensively addressed in the domain of policy design ([Capano and Woo 2017](#)). In particular, there has been a significant increase of programs developed by political institutions, though seldom in cooperation with community organizations, aiming to promote resilient social systems ([Duit et al. 2010](#)).

In this regard, the European Commission’s directives provide an informative example of how resilience has been used as a “practical theory” to cope with an increasingly complex and connected global environment. Especially in the last decade, the EU Commission has designed and implemented a variety of interventions to promote resilience as a response to global changes, as proven by the

number of documents available on the official website (<http://ec.europa.eu/geninfo>). From an overview of the documents available in the different sections, it is apparent that resilience has become an important topic in the activity of the European Commission across several domains. The section *EU in the World* collects guidelines aimed to set the conditions for resilience—i.e., democracy, security, and peace—needed to preserve decent levels of life against the impact of disasters (i.e., *Development and Humanitarian Aid*). Complementarily, documents in the section *Life and Rights in the EU* highlight that the respect for human dignity, freedom, and equality, as well as the enforcement of the rule of law (i.e., *Justice*), are parts of the EU approach to build resilience. Along the same line of reasoning, documents in the *Functioning of the EU* section call for a renovation of democracy and governance with the goal of enacting resilient responses to radicalization, extremism and, in general, to the vulnerability of the political and institutional situation in the EU. In the *Environment, Food, and Natural Resources* Section, texts address issues of resilience related to the environment and quality of life (e.g., protection of existing natural resources, promotion of sustainable development, measures to mitigate climate and geophysical risks, security of primary resources like food and water). Taking into account EU concerns about progress and innovation, the *Business and Industry* Section includes guidelines for broadening the range of resilient responses to economic and financial challenges. Similarly, documents available in the *Infrastructures, Research and Innovation* Section confirm the EU's interest in building and sharing international knowledge on resilience.

The current and more recent approach of EU institutions to resilience is summarized in the 2017 *Joint communication to the European Parliament and the Council* (<https://publications.europa.eu/en/publication-detail/-/publication/236a929f-4b90-11e7-aea8-01aa75ed71a1/language-en/format-PDF>), in which resilience is not only referred to as “the ability of an individual, a household, a community, a country or a region to withstand, adapt and quickly recover from stresses and shocks” (p. 3), but also as a guiding principle and a comprehensive perspective to promote “inclusive and participatory societies” (p. 4), with a clear emphasis on anticipation, prevention and preparedness.

### 1.3. Study Rationale and Context

There is little doubt that resilience is a major object of interest to scientific, public and policy arenas. Consistently, it has been defined a boundary object (Keck and Sakdapolrak 2012) that encourages communication between various fields and, at the same time, a bridging concept that combines aspects from different spheres (Davoudi et al. 2012). In this regard, in an extensive analysis of the multiple meanings and applications of resilience in the policy domain, Brown (2016) highlights a mismatch between the meaning of resilience circulating in the public and academic discourse. In particular, whereas the latter emphasizes the dynamic nature of resilience, the former proposes a more conservative conceptualization and focuses on stability and the maintenance of the status quo. In the same vein, Baggio and colleagues have recently pointed out that resilience can be considered a bridging concept in a limited way (Baggio et al. 2015). According to the Authors, it integrates theories and ideas across the realms of science, policy and practice but questions arise about “the extent to which this represents true innovation, rather than re-labeling of existing and conventional approaches” (p. 9).

Along the same line, the present study aimed to investigate the various meanings of resilience that are conveyed by the press discourse and circulating in the public debate. In particular, the present study pursues the ultimate goal to examine how various notions and contents from the scientific and public/policy realms are communicated, translated and employed by the press elaborating on the idea that resilience can be considered as a boundary and a bridging concept. To pursue such a goal, this research is based on the framework of Social Representations Theory (SRT) (Moscovici 1981) according to which media communication has a leading role in the way technical and scientific subjects are transformed into understandable and communicable forms of knowledge that lay people use in their everyday life (i.e., social knowledge). Precisely, two main processes are responsible for such a transformation; *objectification*, which converts abstract and complex concepts into concrete objects and images, and *anchorage*, which places new contents into pre-existing cognitive categories and schemes.

A conspicuous number of investigations have examined, through the Social Representations Theory lens, the public understanding of technical topics as framed by the media, such as science and technology (Christidou et al. 2004), nanotechnology (Veltri 2012), biotechnology (Bauer and Gaskell 2002), organ donation (Lauri 2009), AIDS (Labra 2015), genetically modified organisms (Castro and Gomes 2005), food irradiation (Gauthier 2010), and climate change (Uzelgun and Castro 2015). These investigations suggest that the study of media representations of technical and scientific objects can be useful, as it shed light on the variety of meanings attached to a significant object across diverse realms of knowledge and practice.

## 2. Material and Methods

### 2.1. Dataset

A total number of 1,298 articles published between 2001 and 2017 in three different national newspapers (La Repubblica, Italy,  $N = 487$ , 2003–2017; Le Monde, France,  $N = 541$ , 2001–2017; and El Pais, Spain,  $N = 270$ , 2010–2017) were collected via the free online newspaper archives (). Articles from *La Repubblica* and *El Pais* were not digitally available, respectively, before 2003 and 2010. The key word *resilience*—in Italian *resilienza*, in French *résilience*, and in Spanish *resiliencia*—was entered in the query. The data collection took two months, from late May to the end of July 2017.

The newspapers were selected according to four criteria: (a) *popularity*. Previous investigations (Bauer 2005; Veltri 2012) corroborated that the public understandings of scientific and technical objects are particularly fashioned by best-selling newspapers, like the ones selected; (b) *political orientation*. Notwithstanding national differences, the three newspapers had similar political orientations and could be placed very close to each other in the right-left political spectrum (Artero 2015; Bentivegna and Marchetti 2019; Salgado and Nienstedt 2016); (c) *accessibility* of the newspapers' online archives and the possibility of downloading full-text articles; and (d) *language*. Italian, French, and Spanish share very similar language structures and semantics. Such an affinity supported the comparability of data.

### 2.2. Analyses

The line of research that explored the social representations of technical and scientific objects in media discourses privileged the investigation of semantic configurations (Bauer and Gaskell 2008; Lahlou and Abric 2011), namely themes and semantic latent dimensions organizing the themes. Statistical analyses such as correspondence analysis (for latent dimensions) and cluster analysis (for themes) were used for this purpose (Veltri 2012). For the aim of this paper, we focused only on exploring themes; with the help of T-Lab software (Lancia 2004) newspaper articles underwent a hierarchical cluster analysis. Words were clustered on the basis of their co-occurrence within portions of the articles. Such portions—never longer than 400 words—were automatically detected on the basis of punctuation, and in the software language they were referred to as “elementary context units” (ECUs).

Before running the analyses, the articles were merged into one single text (henceforth *corpus*). Three different corpora were created as the T-Lab software cannot perform semantic analyses on a textual corpus that contains different languages. Indeed, each corpus was automatically lemmatized by the software according to the Italian, French, and Spanish built-in dictionaries. The lemmatization process modified the texts so that multi-words (i.e., two or more words standing for the same meaning) were merged, empty words (i.e., pronouns, articles, adverbs, prepositions, and conjunctions) were removed, verbs, nouns and adjectives were reduced to their common lexical root, and homographs were disambiguated. Once lemmatization was completed, words occurring less than 4 times were excluded from the analysis, and the *corpora* were automatically divided into ECUs for successive analyses.

### 3. Results

We will present the results of the cluster analysis for, respectively, *El País*, *Le Monde*, and *La Repubblica*. For each dataset, we will report: (1) the number of clusters (i.e., themes) resulting from the analysis, (2) the percentage of ECUs grouped in each cluster, and (3) the most significant words that co-occurred in ECUs (i.e., those with the highest chi-square value). We will further illustrate the distribution of themes over time.

#### 3.1. Themes: Cluster Description

##### 3.1.1. *El País*

Cluster analysis resulted in four clusters as optimal partition (see Table 1 for a list of the most significant words).

**Table 1.** *El País*, clusters: percentage of Elementary Context Units, Lemmas per cluster, and Chi-square values.

Cluster 1 27.5% of ECUs		Cluster 2 28.35% of ECUs		Cluster 3 15.44% of ECUs		Cluster 4 28.71% of ECUs	
Lemmas	Chi-Square	Lemmas	Chi-Square	Lemmas	Chi-Square	Lemmas	Chi-Square
Niño [child]	427,901	Climático [climatic]	523,766	Ciudad [city]	622,937	Equipo [team]	255,118
Vida [life]	421,908	Cambio [change]	469,267	Millones [millions]	397,662	Madrid [Madrid]	251,511
Mujer [woman]	165,868	Empresa [company]	223.25	Urbano [urban]	372,354	Minuto [minute]	235,508
Persona [person]	161,013	Economía [economy]	212.9	Población [population]	224,213	Final [final]	232,344
Felicidad [happiness]	150,296	Sector [sector]	210,922	Humanitaria [humanitarian]	176,111	Laso [Laso]	196,726
Vivir [to live]	135,147	Emisión [emission]	170,768	Unido [united]	172,561	Jugador [player]	161,387
Positivo [positive]	131,683	Banco [banck]	148,986	Mundial [world adj.]	143,327	Partir [to split]	149,594
Padres [fathers]	131,023	Acuerdo [agreement]	138,979	Alimentaria [food adj.]	131,156	Llegar [to arrive]	140,315
Psicólogo [psychologist]	129,913	París [Paris]	127,391	Nación [nation]	113.35	Escribir [to write]	129,429
Emocional [emotional]	116,696	Global [global]	122,915	Alimento [food]	110,627	Libro [book]	123,101
Aprender [to learn]	115,516	Mercado [market]	119,094	Zona [zone]	101,495	Asenjo [Asenjo]	120,558
Estudio [study]	114,579	Empleo [job]	112,748	Habitante [inhabitant]	94,423	Título [title]	114,234
Cerebro [brain]	114.19	España [Spain]	104.93	Sostenible [sustainable]	93,364	Villarreal [Villareal]	114,211
Familia [family]	107.63	Financiero [financial]	102,777	África [Africa]	91,258	Portero [goalie]	106,315
Emociones [emotions]	104,553	Carbono [coal]	98.84	Espacio [space]	89,326	Día [day]	104,704



Cluster 1 grouped 1492 ECUs (27.5% of total ECUs). Words and ECUs in this cluster presented resilience as a vulnerable condition that exposes children and families to stressful situations and traumatic events. Words such as child ( $\chi^2 = 427.90$ ), life ( $\chi^2 = 421.91$ ), woman ( $\chi^2 = 165.87$ ), fathers (131.02), psychologist ( $\chi^2 = 129.91$ ), emotional ( $\chi^2 = 116.70$ ), family ( $\chi^2 = 107.86$ ), psychiatrist ( $\chi^2 = 84.54$ ), school ( $\chi^2 = 84.30$ ), trauma ( $\chi^2 = 80.35$ ), and childhood ( $\chi^2 = 80.35$ ), emphasized the importance of both primary relationships and technical aid in supporting children to adapt and recover from traumatic events.

The emerging meaning of resilience was summarized in the following fragment: “... these facts have an impact on the later life of children, adults also have their own resources. The person who has experienced these events in adulthood also has resilience capacity, and the strength to face life with the greatest possible wellbeing” ( $\chi^2 = 902.303$ ; Los abusos en la infancia afectan a la psique del futuro adulto, by Estefanía Grijota, 16 May 2017). Resilience, defined as the capacity to adapt pointed to subjective ability to pursue a positive development despite early sufferings in life.

Typical words in Cluster 2 (see Table 1), which covered 28.35% of ECUs ( $N = 1538$ ), addressed issues related to climate changes and environmental concerns.

As suggested by the words climatic ( $\chi^2 = 523.77$ ), change ( $\chi^2 = 469.27$ ), company ( $\chi^2 = 223.25$ ), economy ( $\chi^2 = 212.90$ ), emission (170.77), agreement ( $\chi^2 = 138.98$ ), Paris ( $\chi^2 = 127.39$ ), financial ( $\chi^2 = 102.78$ ), coal ( $\chi^2 = 98.84$ ), reduction ( $\chi^2 = 77.89$ ), and energy ( $\chi^2 = 71.80$ ), resilience was referred to as the effort of institutions at different levels—i.e., local, national and supranational—to cope with the global impact of climate change and industrial expansion. In particular, a collective financial effort and a “new economic model” are needed to tackle the climate change by promoting the use of green resources. Several conferences, organizations and governments are required to work hard to save the “natural capital” and increase the capacity of societies to adapt to the adverse consequences of the climate change. The following ECU: “in Paris we are not alone. Cities and companies join national governments in the action against climate change. The world must choose between a sustainable future driven by green development, or a path that leads to a catastrophic climate change” ( $\chi^2 = 1637.588$ ; En París no estamos solos, Teresa Ribera, 8 December 2015) suggested that resilience requires the coordinated engagement of diverse actors, both public and private, in achieving sustainable (i.e., green) development and future. Moreover, an in-depth examination of the most significant ECUs unveiled that climate change has important socio-economic impact that is more severe for the overpopulated urban areas across the globe so as a resilient strategy to climate change reduction calls for environmental, financial, economic and social interventions.

The meaning of resilience emerging from Cluster 3 ( $N = 833$  ECUs, 15.44% of the total amount. See Table 1 for the most significant co-occurring words) shed light on the global concern towards urban overpopulation, and the challenges brought about by social emergencies affecting underdeveloped countries.

Words like city ( $\chi^2 = 622.94$ ), population ( $\chi^2 = 224.21$ ), humanitarian ( $\chi^2 = 176.11$ ), world ( $\chi^2 = 143.33$ ), food (131.16), nation ( $\chi^2 = 113.35$ ), inhabitant ( $\chi^2 = 94.42$ ), sustainable ( $\chi^2 = 93.36$ ), space ( $\chi^2 = 89.33$ ), safety ( $\chi^2 = 72.74$ ), and development ( $\chi^2 = 71.49$ ), pointed to sustainable development, the need for effective infrastructures (i.e., water, agriculture, food production and consumption), and the necessity of safety and assistance for the population escaping from war and conflicts (i.e., humanitarian aid, refugees crisis). As highlighted by the following excerpt, “the challenge is huge. Both the demography, with an urban population that will grow to 6000 million in 2050 according to United Nations estimates, as well as the economy, the big global cities turned into actors capable of competing with the States, pose scenarios of extreme complexity” ( $\chi^2 = 730.745$ ; Ciudades (SOS)tenibles, Antoni Gutiérrez-Rubí, 18 April 2017).

Finally, Cluster 4, which assembled 1558 ECUs (28.71%), referred to the notion of resilience in sports, as revealed by the most significant words (Table 1): team ( $\chi^2 = 255.12$ ), final ( $\chi^2 = 232.34$ ), player (161.39), title (114.23), goal (106.32), Villarreal football club (114.21), basketball (95.17), Olympiacos football club (88.83), triple (88.66), Barcellona football club (82.48), score (76.61), career (76.17), Euroleague (69.79), and passion (53.97). The overview of the most important ECUs of this cluster indicated that resilience is

a key concept also in sport, especially soccer, and used to signify a positive way to respond to obstacles and pursue success.

### 3.1.2. *Le Monde*

The analysis produced 3 thematic clusters as optimal partition. Cluster 1 grouped 3364 ECUs (29.81%), Cluster 2 3529 (31.28%), and Cluster 3 4390 (38.91%) (see Table 2 for a list of the most significant words).

**Table 2.** *Le Monde*, clusters: percentage of ECUs, Lemmas per cluster, and Chi-square values.

Cluster 1 29.81% of ECUs		Cluster 2 31.28% of ECUs		Cluster 3 38.91% of ECUs	
Lemmas	Chi-Square	Lemmas	Chi-Square	Lemmas	Chi-Square
Américain [American]	607,267	Enfant [child]	568,977	Climatique [climatic]	639,615
Européen [European]	524,312	Vie [life]	550,071	Développement [development]	536,704
Crise [crisis]	514,732	Mourir [to die]	536,287	Entreprise [company]	477,699
Politique [political]	497,395	Mort [death]	403,665	Entreprendre [to undertake]	471,499
Etats-Unis [US]	342,724	Vivre [to live]	283,704	Changement [change]	417,958
Financier [financial expert]	251,375	Femme [woman]	246,023	Afrique [Africa]	316,849
État [state]	231,674	Attentat [attack]	229,555	Milliard [billion]	274,256
Président [president]	216,567	Famille [family]	224,042	Niveau [level]	210.56
Économie [economy]	208,012	Jeune [young]	223,779	Million [million]	205,731
Russie [Russia]	205,188	Homme [man]	222,737	Mondial [world adj.]	181,403
Monétaire [monetary]	186,264	Histoire [history]	200,423	Investissement [investment]	175,717
Militaire [military]	179,594	Image [image]	196.77	Secteur [sector]	175.7
Banque [bank]	178,103	Mère [mother]	187,421	Système [system]	173,066
Défense [defence]	170,465	Victime [victim]	171,208	Agriculture [agriculture]	171,007
Chef [chief]	165,789	Scène [scene]	161,598	Climat [climate]	167,865

Cluster 1 addressed resilience within the frame of the financial and political crisis that occurred in the United States and Europe since 2000, as suggested by the following terms: American ( $\chi^2 = 607.27$ ), European ( $\chi^2 = 524.31$ ), crisis ( $\chi^2 = 514.73$ ), political ( $\chi^2 = 497.40$ ), financial expert ( $\chi^2 = 251.38$ ), economy ( $\chi^2 = 208.01$ ), monetary ( $\chi^2 = 186.26$ ), bank ( $\chi^2 = 178.10$ ), growth ( $\chi^2 = 152.56$ ), market ( $\chi^2 = 121.37$ ), and BCE European Central Bank ( $\chi^2 = 98.25$ ).

Resilience pertained to the accountability of States and governments that were compelled to handle the financial crisis far beyond the economic domain. Indeed, the crisis had an impact on the international relationships, which in turn reverberated on the fields of security and diplomacy. Such a

meaning was captured by the following extract: *“the defense and security policy will be “an example of a concrete Europe, of Europe which meets the needs of Europeans. The White Paper is more prolix on the question of the renovation of NATO, underlining the need for “a better sharing of responsibilities between Americans and Europeans”* ( $\chi^2 = 1,170.352$ ; Nicolas Sarkozy defend le retour de la France dans la structure militaire de l’OTAN, Laurent Zecchini, 17 June 2008).

Cluster 2 echoed the most conventional understanding of resilience, associated to pains and harms among children who experienced ruinous events, such as war and terrorist attacks. This meaning was summarized by words such as child ( $\chi^2 = 568.98$ ), die ( $\chi^2 = 524.31$ ), live ( $\chi^2 = 283.70$ ), attack ( $\chi^2 = 229.56$ ), family ( $\chi^2 = 224.04$ ), victim ( $\chi^2 = 171.21$ ), girl ( $\chi^2 = 158.34$ ), kill ( $\chi^2 = 92.72$ ), fear ( $\chi^2 = 90.36$ ), and trauma ( $\chi^2 = 74.67$ ) (Table 2). The focus was on threats that might have seriously compromised children’s development and even survival: *“Child soldiers, working children, abandoned children, abused, raped, forced to flee from war, famine, natural disasters: whatever their tragedy, the children of misery, more and more often, are also street children”* ( $\chi^2 = 711.221$ ; De plus en plus d’enfants déracinés et abandonnés dans le monde, Catherine Vincent, 2 June 2009). Resilience was conceived as an effective response that permitted children to recover and progress: *“their luck in misfortune can be summed up in one word: resilience”*.

Finally, Cluster 3 revolved around the theme of climate change and its damaging effects across numerous areas and, especially underdeveloped countries. Table 2 presents the words with the highest Chi-square value, such as climatic ( $\chi^2 = 639.615$ ), development ( $\chi^2 = 536.704$ ), company ( $\chi^2 = 477.699$ ), change ( $\chi^2 = 417.96$ ), Africa ( $\chi^2 = 316.85$ ), world ( $\chi^2 = 181.40$ ), investment ( $\chi^2 = 175.72$ ), agriculture ( $\chi^2 = 171.01$ ), warming ( $\chi^2 = 160.75$ ), energy ( $\chi^2 = 160.22$ ), and food ( $\chi^2 = 147.88$ ). Environmental issues were associated with a variety of life domains, such as health ( $\chi^2 = 131.48$ ), work ( $\chi^2 = 115.18$ ), transports ( $\chi^2 = 71.29$ ) and technology ( $\chi^2 = 62.79$ ).

Like Cluster 1, the main theme in Cluster 3 made a robust claim for the engagement of private industries, financial organizations, and public bodies to provide territories with infrastructures to cope with the negative impact of climate change and to improve the living conditions of the residing population in the pursuit of a healthy future. Indeed, resilience was described as a long-term process, as explained by the following ECU: *“the Paris conference on climate change is not the finish line, but the starting line of our ambitious race against climate change. The conference must be a turning point towards a less polluted and less vulnerable world in the face of climate change. Around the world, the movement is accelerating”* ( $\chi^2 = 951.816$ ; Ban Ki-Moon: “ce que j’attends de la COP21”, Ban Ki-Moon, 25 November 2015).

### 3.1.3. La Repubblica

Cluster analysis resulted in five clusters (see Table 3 for the list of the most significant words).

Cluster 1 grouped 904 ECUs, covering 12.36% of the total amount. It introduced a representation of resilience as an object intersecting multiple domains—economics, environment, health, and food security—with an emphasis on development and progress. Indeed, a few of the significant terms, like change ( $\chi^2 = 239.51$ ), development ( $\chi^2 = 164.44$ ), search ( $\chi^2 = 163.05$ ), challenge ( $\chi^2 = 141.01$ ), economic ( $\chi^2 = 131.14$ ), new ( $\chi^2 = 110.57$ ), system ( $\chi^2 = 108.99$ ), social ( $\chi^2 = 90.73$ ), global ( $\chi^2 = 88.50$ ), future ( $\chi^2 = 79.23$ ), environmental ( $\chi^2 = 78.11$ ), and technological ( $\chi^2 = 72.90$ ) pointed out that resilience was conceived as a trans-domain process affecting a variety of global issues. In particular, the representation of resilience was anchored to the theme of global change and to the search for a broad perspective to address the challenges and opportunities that derived from it. Such a view was detailed by the following excerpt, according to which resilience is *“the ability of a system to overcome change. If we consider that the society in which we live is a system that will have to face great climatic, social and economic changes, we must understand what are the opportunities that we can draw from this situation”* ( $\chi^2 = 290.16$ ; Due architetti inventano una serra galleggiante. “La nostra risposta per la fame nel mondo”, Giampaolo Colletti, 25 November 2014).

Cluster 2 gathered about 24% of total ECUs ( $N = 1712$ ). Its meaning revolved around the individual ability to cope with harmful hardship, as shown in Table 3. Key issues concerned how to minimize the damaging impact of traumatic events on children’s development and how to help them to



become healthy adults. The significant words child ( $\chi^2 = 313.71$ ), die ( $\chi^2 = 256.27$ ), home ( $\chi^2 = 160.50$ ), school ( $\chi^2 = 159.71$ ), parent ( $\chi^2 = 138.61$ ), learn ( $\chi^2 = 94.99$ ), become ( $\chi^2 = 93.59$ ), adult ( $\chi^2 = 92.02$ ), pain ( $\chi^2 = 89.25$ ), understand ( $\chi^2 = 87.07$ ), fear ( $\chi^2 = 73.92$ ), and psychologist ( $\chi^2 = 69.17$ ), envisaged resilience as a process through which children learn to respond adaptively to adversities. Though childhood was central, ECUs referred also to painful situations that negatively affected individuals' wellbeing regardless of their age: natural disaster (i.e., earthquakes), illness (i.e., cancer), grief and losses, and family conflicts. Such a representation was illustrated by the following extract: *"Resilience is the ability to deal with life: to take its punches and to know how to fight back. Many young people nowadays think that life is terribly harsh. None of them should leave school without learning to fight its downsides"* ( $\chi^2 = 69.17$ ; "A scuola insegnate a combattere con la vita", il sogno di David Puttnam. "E basta riforme a ogni cambio di governo", Cinzia Gubbini. 13 December 2014).

Cluster 3 assembled 1356 ECUs (18.95%). The most significant words (see Table 3), such as World Food Program ( $\chi^2 = 1077.53$ ), food ( $\chi^2 = 853.66$ ), humanitarian ( $\chi^2 = 677.33$ ), aid ( $\chi^2 = 625.65$ ), emergency ( $\chi^2 = 334.68$ ), Food and Agriculture Organization ( $\chi^2 = 330.67$ ), food ( $\chi^2 = 319.91$ ), starvation ( $\chi^2 = 295.37$ ), unsafety ( $\chi^2 = 289.55$ ), conflict ( $\chi^2 = 247.83$ ), refugee ( $\chi^2 = 245.08$ ), and vulnerable ( $\chi^2 = 143.31$ ), addressed problematic global issues, first of all humanitarian emergencies. Food and malnutrition, human rights, peace and security, and refugees, were the core elements. The following extract, where EU policies were mentioned, exemplified the international joint effort to contain the disrupting consequences of humanitarian problems: *"In South Sudan, a huge catastrophe for 5 and a half million people without food. The commitment of the European Commission to save the lives of those affected by the conflict in this African country ... The emergency operation of the United Nations agency, World Food Program (WFP)"* ( $\chi^2 = 5784.813$ ; Sud Sudan, una catastrofe dilagante per 5 milioni e mezzo di persone senza più cibo, 29 May 2017).

Cluster 4 contained 1172 ECUs (16.38%). Unlike Clusters 1 and 3, a local perspective was adopted here, as suggested in the following excerpt: *"The same image is positive: small changes in our daily life, and in choices within our community, can have enormous consequences on the future. Cities are the primary lab for a better future: this is true for cities of all sizes, not just for New York with its nine million inhabitants"* ( $\chi^2 = 250.487$ ; Genova e una guida al caos per costruire un future migliore, Federico Rampini, 28 September 2015).

The notion of local, and in particular of local urban contexts, was conveyed by the most significant words of this cluster (see Table 3), such as city ( $\chi^2 = 488.23$ ), major ( $\chi^2 = 255.08$ ), party (political) ( $\chi^2 = 226.94$ ), square ( $\chi^2 = 167.84$ ), project ( $\chi^2 = 97.74$ ), local administrator ( $\chi^2 = 96.42$ ), right (political) ( $\chi^2 = 71.20$ ), left (political) ( $\chi^2 = 68.06.37$ ), rebirth ( $\chi^2 = 63.08$ ), democratic ( $\chi^2 = 61.92$ ), cultural ( $\chi^2 = 51.41$ ), and voter ( $\chi^2 = 44.61$ ). Local communities were addressed in terms everyday life, problems, and government institutions. Resilience was meant as embedded in community issues, namely local sustainability, social inclusion, urban security, urban requalification, and cultural diversity.

Finally, Cluster 5 assembled 2013 elementary contexts (28.13%). The ability of the international economy to cope with, and recover from, financial crisis stood out as the core theme. In fact, the significant words bank ( $\chi^2 = 585.78$ ), European ( $\chi^2 = 509.02$ ), euro ( $\chi^2 = 479.54$ ), billion ( $\chi^2 = 442.22$ ), growth ( $\chi^2 = 305.63$ ), European Central Bank ( $\chi^2 = 294.55$ ), recovery ( $\chi^2 = 260.02$ ), Gross Domestic Product ( $\chi^2 = 216.49$ ), rebirth ( $\chi^2 = 63.08$ ), market ( $\chi^2 = 179.46$ ), inflation ( $\chi^2 = 146.11$ ), and loan ( $\chi^2 = 130.61$ ) (see Table 3 for the list of words with highest chi-square values), hinted at the capacity of European countries to recover after economic losses and to adjust to adversities. Indeed, resilience was meant here as a property of "complex systems", as illustrated by the following quotation: *"This growth is largely supported by temporary factors such as low oil prices, the weakness of the euro exchange rate and the accommodative monetary policy of ECB. It is encouraging to note that the euro area is capable of resilience when faced with external events, such as the slowdown in world trade"* ( $\chi^2 = 657.277$ ; Eurozona: continua la crescita, ma in modo moderato, 5 November 2015).

**Table 3.** *La Repubblica*, clusters: percentage of ECUs, Lemmas per cluster, and Chi-square values.

Cluster 1 12.63% of ECUs		Cluster 2 23.92% of ECUs		Cluster 3 18.95% of ECUs		Cluster 4 16.38% of ECUs		CLUSTER 5 8.13% of ECUs	
Lemmas	Chi-square	Lemmas	Chi-Square	Lemmas	Chi-Square	Lemmas	Chi-Square	Lemmas	Chi-Square
Cambiamento [change]	239,514	Vita [life]	390,852	Milioni [millions]	1,108,434	Città [city]	488,225	Banca [bank]	585,784
Settore [sector]	171,805	Bambino [child]	313,707	WFP * [WFP]	1,077,526	Partire [to start]	306,115	Europeo [European]	509,016
Sviluppo [development]	164,438	Ragazzo [kid]	312.65	Alimentare [to feed]	853,659	Sindaco [major]	255,083	Euro [euro]	479,542
Ricerca [search]	163.05	Morire [to die]	256.274	Persone [people]	755,578	Partito [party]	226,935	Miliardo [billion]	442.22
Sfida [challenge]	141,012	Figli [offspring]	190,668	Umanitario [humanitarian]	677,326	Piazza [square]	167,844	Crescita [growth]	305,626
Imprese [companies]	135,322	Casa [home]	160,502	Assistenza [aid]	625,646	Teatro [theater]	164,918	BCE *** [BCE]	294,552
Economico [economic]	131,137	Scuola [school]	159,711	Sudan [Sudan]	374,273	Storia [history]	127,891	Ripresa [recovery]	260,019
Sostenibile [sustainable]	113,346	Parlare [to talk]	159,049	Emergenza [emergency]	334,681	Scegliere [to choose]	117,348	PIL [GDP]	216,486
Nuovo [new]	110,571	Morte [death]	140,748	FAO ** [FAO]	330,667	Festival [festival]	113,597	Monetario [monetary]	208,004
Sistema [system]	108,986	Donna [woman]	139,492	Cibo [food]	319,911	Progetto [project]	97,737	Prezzo [price]	204,566
Produrre [produce]	99,005	Genitore [parent]	138,606	Popolazione [population]	313,606	Assessore [local administrator]	96,423	Riprendere [restart]	192,467
Azienda [firm]	97,483	Vivere [to live]	131,584	Fame [starvation]	95.37	Scelta [choice]	96,015	Europa [Europe]	191,149
Economia [economy]	91.45	Giovane [young]	126,391	Agenzia [agency]	290,661	Obama [Obama]	86.31	Tassi [rates]	188,369
Sociale [social]	90,728	Sentire [to feel]	125,163	Insicurezza [unsafety]	289,553	Napoli [Naples]	84,577	Mercato [market]	179,459
Globale [global]	88,497	Padre [father]	119,166	Nazioni Unite [United Nations]	276.47	PD [Democratic Party]	77,256	Anno [year]	174,584

\* World Food Program; \*\* Food and Agriculture Organization; \*\*\* European Central Bank.

### 3.2. Distribution of Themes in Time

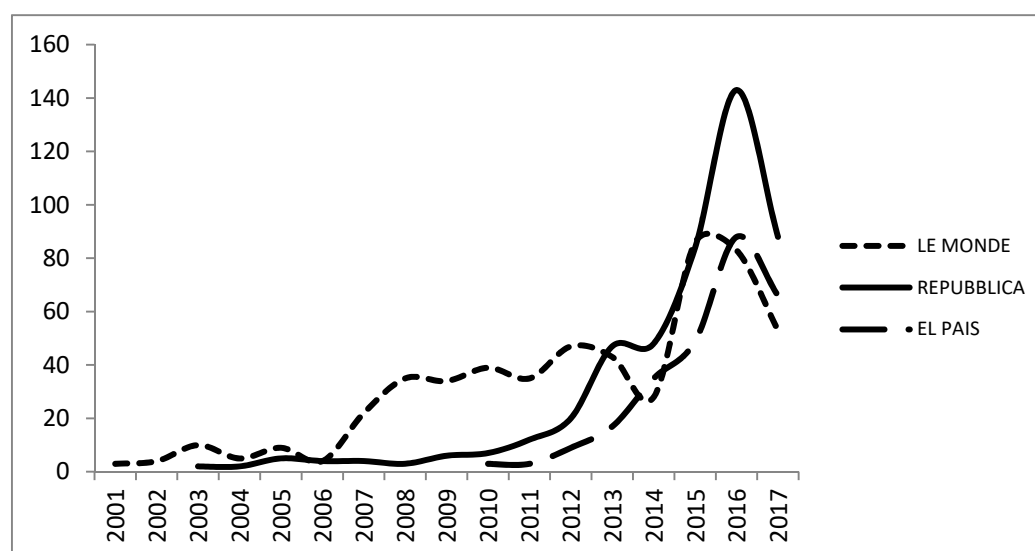
An overview of resilience themes across newspapers is presented in Table 4.

**Table 4.** Themes per newspaper.

	Environment & Sustainable Development	Trauma & Individual Psychology	Economic-Financial Crisis	Humanitarian Emergencies	Local Communities	Sport
<i>El Pais</i>	λ	λ		λ		λ
<i>Le Monde</i>	λ	λ	λ			
<i>La Repubblica</i>	λ	λ	λ	λ	λ	

The environmental and the psychological themes recurred in all the three newspapers, the financial–economic and the humanitarian themes in two of them (*Le Monde* and *La Repubblica*). The locale and the sport themes, on the contrary, were specific, respectively, of the Italian and Spanish press.

The interest towards this topic increased over time in all the three newspaper analyzed (Figure 1).



**Figure 1.** Number of articles per year.

Not only the media coverage intensified, but in the time span considered themes varied in their magnitude. The general trend detected was that, as time passed, the press representations of resilience became more and more diversified and multifaceted, shifting from individual to collective and systemic resilience across a variety of domains.

In *El Pais* (Figure 2) articles the understanding of this topic initially revolved around childhood and individual capability to cope with traumatic events; indeed, in 2010 and 2011 this theme was the largest (respectively, 47.92% and 58.82%).

In 2012, the humanitarian emergencies turned out to be the most addressed (49.57%). Climate change and environmental concerns were at the core of the representation of resilience in 2013 (46.43%), along with a renewal of interest towards children, families and positive individual development (31.07%). From 2014 until 2017, these three themes seemed to stabilize, occurring in articles almost in the same extent. The sport theme, despite being the smallest one, was stable across time.

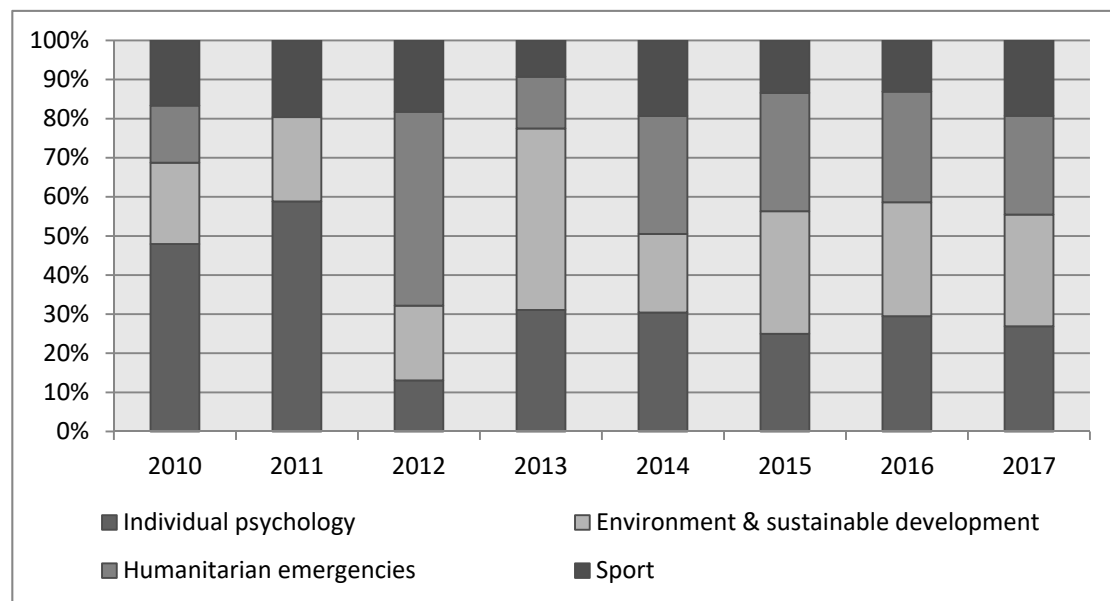


Figure 2. *El Pais*—themes per years.

Also in *Le Monde* articles (Figure 3) the representation of resilience was initially (2000–2006) based mostly on the individual and developmental aspects of resilience (i.e., children and their abilities to recover from traumas). In fact, this theme had a greater weight compared to the others, with a peak in 2001 (89.83%) and 2003 (76.35%). Since 2007, the concerns towards the global economic crisis and the environmental challenges have emerged as key themes. In particular, the financial theme was prominent in 2008 (57.63%), whereas the environmental theme became progressively more and more relevant in the following two years, namely in 2009 (40.81%) and 2010 (34.9%).

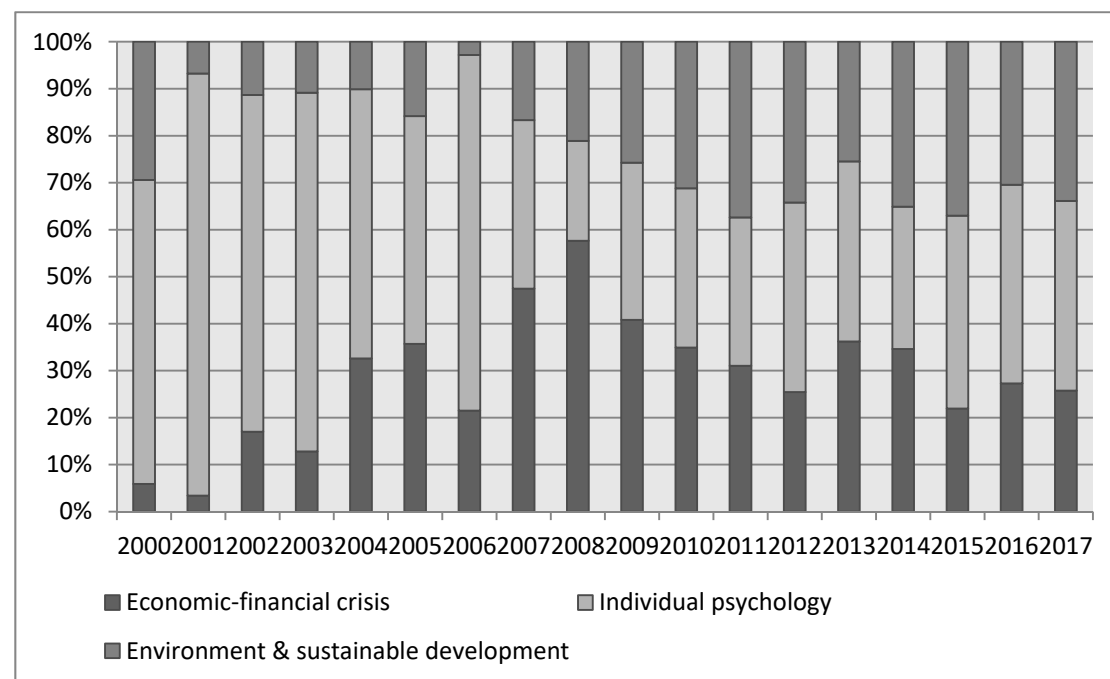


Figure 3. *Le Monde*—themes per years.

Again, in the earlier years (2003–2004) the attention of *La Repubblica* (Figure 4) was mainly devoted to the theme of resilience of individuals, primarily children and adolescents, and the resilience of systems facing the economic crisis.

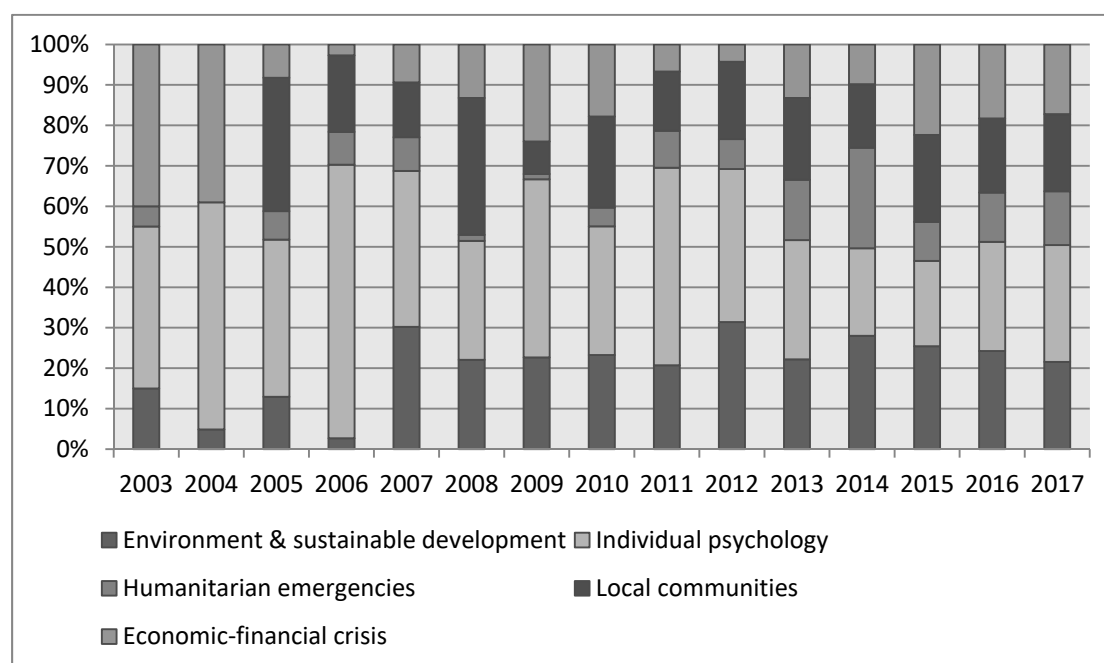


Figure 4. *La Repubblica*—themes per years.

Concern about childhood remained a central theme with a peak in 2006 and a relative decrease starting from 2013. The environmental sustainability theme gained relevance since 2007 and its weight was stable over time without significant fluctuations. On the other hand, the distribution of both the local community and the financial theme was rather variable until 2012. Finally, less attention was paid in the Italian newspaper towards the humanitarian issues, with the exception of 2014 (24.82%).

#### 4. Discussion

Along with the approaches that have suggested that resilience may be a boundary and a bridging object (Baggio et al. 2015), the main objectives of our study were (a) to investigate the understanding of resilience produced by press discourses in three diverse national contexts (i.e., Spain, France, and Italy) also exploring its evolution over time, and (b) to examine the degree to which it incorporated technical and scientific meanings or included components that are not part of the academic debate but have a practical impact.

(a) Overall, the results of the cluster analysis confirmed that resilience is an “umbrella concept” that embraced a varied class of phenomena where the successful functioning of a social system is put at risk by serious threats (Masten and Obradović 2006). In particular, the public representation of this concept revolved around three core dimensions. First, the significant menaces and adversities that threaten the good development of a social system. This result supported that resilience is a contextualized concept and bolstered that the types of stressors can vary, determine different kinds of outcomes, and necessitate definite solutions to stimulate positive adaptation (Matarrita-Cascante et al. 2016). Second, in accordance with the public view of resilience (Duit et al. 2010), the press discourse put emphasis on the living system, which suffers the adverse circumstances, with a growing interest on higher level and complex social systems. In fact, the semantic analysis confirmed that resilience is an inherent capacity that concerns individuals, groups (e.g., families, teams), local communities, and larger social systems such as countries, high-risk population and broad categories of people that are regarded as particularly vulnerable, for instance underdeveloped countries, children witnessing wars and terroristic



attacks, as well as populations affected by human emergencies but also supranational institutions and impersonal mechanisms like the global financial market. Third, the subjects which are compelled to respond to the multiple changes that occur at global level, precisely both private organizations, such as industries and companies, and public bodies, for instance governments and states, are expected to make coordinated efforts to find effective strategies to promote resilience. The results therefore corroborated the notion of resilience as a nested object that crosses multiple levels of the social, political, and institutional functioning (Buikstra et al. 2010; Gunderson and Holling 2002; Wilson 2012), and also as a multidimensional object (Adger 2000) explored by multiple fields, which has not only a theoretical relevance but also a practical significance (Matarrita-Cascante et al. 2016).

The cluster analysis of the three datasets revealed more similarities than differences among the three newspapers with concern to the themes covered by the press and their evolution over time. Indeed, two themes recurred in all three countries, they were sustainability and psychological ability, and two more themes in two out of three nations, namely economic-financial crisis and humanitarian emergencies. Basically, all the newspapers privileged a global perspective to resilience indicating that this topic is seen as a critical challenge, which required strong partnerships and collaboration among countries all over the world. In fact, the public representation of resilience shared by each newspaper appeared to be contextualized within a globalized world where unexpected events, hazardous occurrences, and risks have become somehow *ordinary*: ecological and economic sustainability, financial crisis, individual and collective traumatic events, old and new humanitarian emergencies, were the key themes detected in our study as well as the critical issues facing each country. Moreover, findings revealed that resilience was a relatively recent topic in the three newspapers' coverage, but they also showed that it became more and more important over time, and that it was increasingly associated to issues of change, crisis, and development characterizing contemporary societies with a shift in focus: from individuals to systems. In fact, results disclosed that the understanding of resilience divulged by the El Pais, Le Monde, and La Repubblica initially revolved around individuals and small groups (such as family), but, as time passed, the focus shifted to complex socio-ecological systems. Such a trend echoed the transformation of the concept in academic circles, and it can be interpreted in the light of the increasing association of resilience with the issue of change and development (Matarrita-Cascante et al. 2016).

The results revealed that the representations of resilience conveyed by the three newspapers covered a few key themes, and is used to analyze changes occurring in institutions, political assets and societies. The commonalities between the three countries supported the idea that resilience may be a comprehensive theory of change and a boundary object that can facilitate the communication across both disciplinary and national boundaries (Baggio et al. 2015). These findings may have practical implications with regard to the EU's interest in building and sharing knowledge on resilience at international level.

(b) The technical and scientific components of the notion of resilience were not in the foreground in the newspapers' discourses. Only a few scientific alignments surfaced in the newspapers' core themes—compared to the variety of scientific issues debated in the academic trans-disciplinary literature—while the action domains of the European Union were more broadly recalled: concern towards the preservation of decent living conditions (i.e., *Development and Humanitarian Aid*), the protection of existing natural resources and the mitigation of the climate risks (i.e., *Environment, Food, and Natural Resources*), and sustainable finance given the economic instability (i.e., *Business and Industry*). Indeed, our results supported the idea that resilience is a boundary object to the extent to which the press discourse on this object linked multiple ideas, concerns and contexts across diverse fields and this trend is observed in all the three countries.

Overall, the findings of the three semantic analyses highlighted that the press representations conveyed a “practical theory” of resilience that echoed the EU approach and actions. In addition, the research outcomes emphasized that such a practical theory was built upon modern global challenges, and deeply embedded in the historical, political, and economic contexts. Hence, our analyses

corroborated that the context is significant to the understanding of resilience, as it brings into the concept information about the threats that a social system or an actor has to cope with, and also about responses and strategies (Matarrita-Cascante et al. 2016).

In conclusion, the exploration of the social representations of resilience conveyed by three national newspapers revealed that the concept has acquired progressive centrality in press coverage over time, and that there are multiple themes at the core of the public understanding of this object, mostly concerned with contemporary rapid global changes. Indeed, our results helped to confirm that resilience has become a prominent practical approach in several fields (i.e., political, economic, environmental, etc.), and it is therefore a useful concept to understand contemporary societal issues.

Ultimately, our study has some limitations that have to be addressed. Given that only articles that were available online and downloadable were selected, and only three newspapers were considered, the number of texts analyzed was limited. In addition, while our analysis offered a general overview of themes, it did not explore them in detail, nor in their semantic, rhetorical, narrative, or structural aspects. Moreover, differences in the time-span considered for the three newspapers limited the scope of the comparison. Notwithstanding these limitations, our study captured some of the major themes of resilience in public discourse, which in our view were sufficient to support the notion of resilience as a public object.

**Author Contributions:** Conceptualization, T.M. and A.R.; methodology, T.M.; formal analysis, T.M.; investigation, resources and data curation, T.M., S.V. and A.M.; writing—original draft preparation, A.R., E.D.S. and S.V.; writing—review and editing, A.R. and T.M.; supervision, T.M.

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no conflict of interest.

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