

Media performance during the “Catalan process”

Trends in mainstream media audiences and news framing in the course of the independence debate in Catalonia

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To my family

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ABSTRACT

This thesis analyses the processes undergone by mainstream media during the independence debate in Catalonia, focusing on the relationship among media, their audiences and governments through different empirical perspectives. It is made up of three articles. The first examines the evolution of media audiences in Catalonia based on an unpublished compilation of data and evaluates changes in their consumption patterns coinciding with periods of greater political intensity since this debate reached the political arena. It defines and proves the existence of two stable media systems, the Catalan and the Spanish systems. The second article presents the results of a content analysis of the top twelve outlets with highest consumption in Catalonia in the period 2012-15 from a framing approach, and highlights the main differences between the two systems in the tone applied to the political actors and the predominance of two specific frames designed for the analysis from the political discourse (“right to decide” and “rule of law”). Finally, the third article analyses the polarization of media audiences coinciding with the independence debate and confirms the homogenization of media audiences towards the issue.

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1. GENERAL INTRODUCTION

“Were it left to me to decide whether we should have a government without newspapers or newspapers without a government, I should not hesitate a moment to prefer the latter.”

Thomas Jefferson

“Unlike Catalonia, most of the press in Scotland depends on London’s media groups, and the last thing they are interested in is the welfare of Scotland”

Alex Salmond

Media and democracy are intrinsically linked; therefore, the media are an indispensable factor in understanding any political process currently taking place in the world. Moreover, communication and conflict are two united concepts the association of which generates feedback provided that communication has an impact on any conflict reported and can even constitute it; and the mediatization of a conflict is a central part of the conflict itself (Castelló, 2012). This thesis focuses on the role of the media in the political conflict experienced in Catalonia since 2012. This European region (generally identified as one of the “nationalities” recognized by the Spanish Constitution¹ and self-defined as a “nation” in its statute of autonomy²) internally, debates its independence from Spain and externally, its government’s struggle with the Spanish government to achieve a self-determination referendum in what has been denominated “the Catalan process”.

1 Spanish Constitution (1979), art. 2.

2 Statute of Autonomy of Catalonia (2006), preamble.

This topic has already garnered academic attention within the media studies field, with content analyses identifying differences between the news framing of the Catalan press versus the Spanish press and concluding that the media have not been neutral in their coverage of the Catalan conflict (Micó and Carbonell, 2017), that the Catalan newspapers tend to legitimize the Catalan process while the press from Madrid tend to discredit it (Gili, 2017), that the location of the newspapers accounts for the news framing of the Catalan process rather than ideology (Alonso, 2014), that the framing of the 9-N consultation of 2014 had opposite tones in the press from Barcelona and from Madrid (Ballesteros, 2015), that the Spanish media align themselves with the Spanish elite's positions about the issue belligerently (Almiron, 2019) and, regarding TV and radio, that the Spanish media tend to adopt a critical tone when they report about Catalonia (López, Gómez & Vicente, 2017).

This research examines the issue from several perspectives via which the media can be interrelated within a society on the basis of the classical connections among political power, news organizations and public opinion (the three agendas described by Rogers and Dearing [1996]): the interaction between media and public opinion (focusing on their audience) and the dialectic between media and political institutions to frame the conflict (analyzing their message). The thesis consists of the compilation of three academic articles that share an underlying research question:

RQ: How mainstream media operating in Catalonia are performing during the Catalan process and to what extent it differs in the Catalan media from the global Spanish media.

With this common query and with a focus on the audience, it includes the delimitation of the media systems coexisting in Catalonia based on market data and their evolution in recent decades; as well as a study of polarization of the Catalan society and its influence on media audiences. And with regard to the message, it offers a content analysis of the frames conveyed by the media and

the extent to which they coincide with those promoted by the governments involved in the conflict.

The social relevance of the thesis leans on the current attention and newsworthiness of the research topic, which is object of public and academic interest in Europe; whereas its scientific relevance grounds on the use of unpublished databases such as aggregated market data from the Estudio General de Medios (EGM) and the results of an own content analysis, as well as on the application of theories and methodology such as the Media System Dependency, the indexing hypothesis (or indexing model) and the cultivation studies (defined below) to the context of an independence debate.

On this matter, more than two centuries separate the two quotes heading this introductory chapter but they share a common base. The famous citation by the third president of the United States of America and one of its Founding Fathers in 1787³ reflects the value that the framers of the American Constitution attached to the press, which played a key role in the American War of Independence and whose freedom was granted in the first amendment of the Constitution. The second quote was stated by the former First Minister of Scotland in an interview on a Catalan radio station⁴ few months after losing the independence referendum he promoted in 2014 to gain independence from the United Kingdom. The then leader of the Scottish National Party regretted the lack of an autochthonous media system in his country to counterbalance the anti-separation arguments transmitted by the British media. Both politicians, therefore, recognized the relevance that public opinion and the media held in their societies in the context of an independence debate, and acknowledged that “communications media have played a major role in the development of modern societies, in the formation of nation-states and cultural identities” (Hardy, 2010: 4).

³ Jefferson, T. (1815). *The Works of Thomas Jefferson, Federal Edition. Volume V: Correspondence and papers.* p. 253.

⁴ RAC1, 2014, Mar 19th. Interview in the program “El Món a RAC1”.

1.1 Media in Catalonia and the independence debate

Although the pro-independence movement has existed for a long time in Catalonia, it was fuelled this century by the political debate about the expansion of its statute of autonomy in 2006, the decision of the Spanish Constitutional Court overruling important aspects of the reform in 2010 and the waves of symbolic popular consultations on independence in hundreds of municipalities from 2009 until 2011. The movement gathered momentum in 2012, when the first massive demonstration clearly in favor of independence took place in Barcelona on the 11th of September (Catalonia's national day) and, some weeks later, in a snap election the parties resolved to organize an official vote on the matter and gained a majority of the seats in the Catalan parliament (Pallarès & Rodon, 2014). Since then the question has become the main issue on the Catalan political agenda. Statistically, there has been a profound switch in the public opinion of the 7.5 million Catalan inhabitants in the last decade, shifting from moderate pro-autonomy positions towards openly defending a consultation about secession. Less than 15% of citizens aimed an independent state in October 2005 according to official surveys (CEO), a preference which has dramatically risen to more than 45% since 2012, while over 60% of inhabitants deem the current level of autonomy to be insufficient (Guinjoan, Rodon & Sanjaume, 2013; Serrano, 2013).

The media in Spain belong to the tradition of the polarized pluralist model, characterized by an interventionist role of the state, a parallelism between political parties and media and consequently a strong politicization of outlets; but media systems are not homogeneous in countries as long as territories such as Catalonia and Quebec present regional variations (Hallin & Mancini, 2004). To analyze Catalonia's situation, the thesis is challenged by the assumption that there are two competing media systems in the region: one composed of the Spanish national outlets and another one consisting of Catalan outlets. The Catalan media have historically been hegemonic in the press market while the Spanish media has always dominated the TV audience; and there has been a shift in the radio scene in the last decade since the Catalan stations have

conquered the majority of the market (Gifreu & Marí, 2014), as explained in the first article of this thesis.

Following this assumption, Catalan and Spanish media systems are defined according to three variables concerning the sender, the message and the recipient: 1) the location of its main newsroom (whether it is in Catalonia or elsewhere in Spain); 2) the production site of its informative contents distributed in Catalonia (whether they are produced in Catalonia or elsewhere in Spain); and 3) its targeted audience (the entire Spanish population or specifically the Catalan population), as described in the next chapter.

1.2 The role of media in democracy

The reliance of governance on public opinion has long been theorized by thinkers and analyzed by social scientists. “All governments rest in opinion” is a key principle that describes the doctrine originated by the Enlightenment philosophers John Locke and David Hume and inspiring the American Constitution (Noelle-Neumann [1979], quoting Vollrath). Public opinion is attributed the functions of achieving integration, stabilizing societies, establishing priorities and conferring legitimization. Regarding the area in which opinions are shared, public sphere is defined as the realm of social life where the exchange of information and views on questions of common concern can take place so that public opinion can be formed and, on a scale of a modern society, newspapers and magazines, radio and television are the media of the public sphere (Habermas, Lennox & Lennox, 1974).

The association between media and political institutions since the beginning of modern democratic regimes was already depicted by Alexis de Tocqueville in “Democracy in America” (1835): “The sovereignty of the people and the liberty of the press may therefore be looked upon as correlative institutions; just as the censorship of the press and universal suffrage are two things which are irreconcilably opposed.” The 18th century gave birth to a libertarian model of the

press, fruit of the Enlightenment and the Liberalism, in which the Crown lost its power to regulate the press and the church was removed as a regulatory agent in United Kingdom and the American Constitution protected the freedom of press in the Bill of Rights (Siebert, Peterson and Schramm, 1956).

The connection between news organizations and politics became stronger in the last century, coinciding with the emergence of broadcast media (radio and TV), due to two phenomena: mediation and mediatization. Mediated politics is the situation in which mass media become the main channel of information from governors to the governed, and vice versa (Bennett & Entman, 2001). In this scenario (usual in contemporary societies) media plays a central role in organizing the public debate and determining the public agenda. This is the first step for mediatization; defined as the fact that politics lost its autonomy to become dependent on mass media, which produce political content and interfere in the political processes (Mazzoleni & Schulz, 1999). So media logic (the dominance of the news values and the storytelling techniques) prevails over political logic (collective and authoritative decision making and the implementation of political decisions).

The process of mediatization happens in four steps (Strömbäck, 2008). Mediated politics is the first step. Then comes the phase in which media becomes more independent from the political elites, so they take control of the content and make decisions following its own logic (format, audiences) rather than applying their political routines. The third phase takes place when media are so influential and powerful that no political actor can ignore them and must adapt to media logic, developing skills in news management (spinning) and integrating communication as a part of the policy-making processes. Finally, in the fourth phase media colonize politics and there is no distinction between media and political logic, and communication by the government (and consequently, all the political actors) adopts a strategy of a permanent campaign.

Mediatization grants the media a prominent role in the citizens' learning of politics. Hence, an academic debate about the role of media exists in democracies promoting public participation and engagement in public affairs or, on the contrary, discouraging citizens from getting involved. Some empirical studies carried out in several countries have focused on the linkage between how the media frame political information and the attitudes of society towards public institutions and political actors. The most critical scholars argue that, far from their mission to serve the public good and communicate the government with their governed, the media cultivate a cynical view of politicians and institutions, based on self-interest and competition between rivals in order to achieve and remain in power (Cappella & Jamieson, 1997; Patterson, 1993). However, other scholars reply to this theory stating that the better informed the citizens, the more engaged they are in the system and so, they believe that the media push towards the opposite direction of that described by the critics (Norris, 2000). Finally, some other authors take the middle ground, distinguishing between media outlets that promote a cynical view of politics and those that do not (De Vreese, 2005a).

1.3 A new era in media

Although traditional features (concerning conditions such as press circulation, public versus private hegemony in the audiovisual sector, political parallelism of the media and the degree of professionalism and autonomy of the journalists) differentiate media systems in Western countries, as has been studied and described over time (Siebert et al., 1956; Hallin & Mancini, 2004; Hardy, 2010; Brüggemann et al., 2014), there is a tendency towards convergence of media systems triggered by globalization and digitalization and shifted towards the liberal model (Benson & Hallin 2007; Hallin & Mancini, 2012; Hardy, 2012). So, while in the previous century there was a monopoly of the public broadcasters with a strong role of the state in Europe, unlike the competition among private outlets in America; nowadays the media sector almost everywhere is undergoing a period of change due to increasing competition and

commercialization, and consolidation in the ownership status as well as the rise of digital media (Papathanassopoulos, 2019). Some of the effects of this “deregulation” era in Europe include: increasing competition and demand for programs in the audiovisual landscape, an erosion of both audience’s share and revenue for the public broadcasters, and the creation of larger and fewer dominant conglomerates leading to a more concentrated television sector. Meanwhile the press faces a long-term decline of readers and titles, and a decreasing share of advertising revenues. All these factors explain another phenomenon which is a decline in news quality and a rise of “tabloid culture” and “copy-paste journalism”, priming multifunctionality over specialty and jeopardizing newsroom autonomy (pp. 3-4). In general terms, declining advertising revenues and increasing competition put pressure on the traditional media business model, which needs to evolve and put digital technology central in their daily operations (Evens, 2018).

However, this convergence experienced by media systems in Europe is not one-way, since the liberal model has also evolved, with a decline of the journalistic professionalism in the US, an increasing opinion-centered journalism leaving behind the information-centered journalism, and a growing political parallelism (Hallin & Mancini, 2012).

Political communication is challenged by fundamental changes such as the proliferation of social and digital media, which increases the dispersion of public voices, and the fragmentation of publics, that makes it difficult to reach audiences with different viewpoints (Bennett & Pfetsch, 2018). Thus, contemporary political communication “increasingly takes place in contexts defined by diminished citizen attention, hybrid media systems, the rise of undemocratic movements and parties, and networked, often polarized, political information flows. These conditions challenge theoretical approaches in the field, as well as the framing of research questions and development of methods” (p. 250). There is a new paradigm that explains not only media patterns of the audience but also political attitudes of the citizens. This modern landscape is based on a high media choice environment and has been generated by the

explosion of cable TV and internet, which has massively increased news consumption options, easing selective exposure and polarization of audiences (Prior, 2007). As a result of the revolution in technology, the supply of information has increased exponentially, and citizens have access to thousands of online sources from established news organizations, to the candidates themselves and to unknown individual bloggers (Bennett & Iyengar, 2008). So the audience has become fragmented, there is an increasing level of selective exposure based on partisan preference and this changes in media foundations could lead to a new era of minimal effects. Although digital technologies have modified the traditional mediated interaction among elites, media and a unified public sphere (due to new digital “pump-valves”: platforms, analytics, algorithms, ideological media and rogue actors such as hackers and bots) and potentially could diversify and democratize the flow of frames, they can also spread misinformation, polarize citizens, reduce social capital and undermine cooperative norms; and, despite everything, “power laws suggest that elites will still originate and shape the most widely-circulated frames, even those seemingly generated from the grassroots” (Entman & Usher, 2018).

Nevertheless, traditional media are still important to influence the agenda in the public sphere, while internet-based discussion forums may be disconnected from the broader agenda and attention to the web is highly concentrated largely on few commercial sites (Neuman, Bimber & Hindman, 2011). A computer-based study proved this predominance of mainstream media after tracking quotations in 90 million of news and blog articles during the last three months of the 2008 presidential election in the United States. Its findings were that in only 3.5% of the analyzed cases, stories first appeared in the blogosphere and then propagated to mainstream media, and the peak of news-media attention came 2.5 hours earlier than the peak attention of the blogosphere (Leskovec, Backstrom & Kleinberg, 2009). At the end of the day, “the society-wide communicative function of the ‘traditional’ core mass media of newspapers, television and radio has not greatly changed in itself, although their near monopoly of public communication is increasingly being challenged” (McQuail, 2010: 17).

This prominent role of traditional media applied to the topic of this thesis can also be demonstrated observing data from Spanish and Catalan society. TV has a stronger influence than social media as a source of news in Spain and the most visited providers of online information are the digital editions of the newspapers El País and El Mundo and the TV channel Antena 3 according to the 2019 Reuters Institute Digital News Report (Newman et al., 2019). Moreover, in the official survey of the Centre d'Estudis d'Opinió (CEO) television is still the first outlet chosen to get informed about politics in Catalonia, with 76% of respondents using it; the internet is the second answer (51%) followed by press (35%) and radio (34%). Furthermore, asking specifically for the websites where people follow political information, 86% indicate media sites, far ahead of the 43% that get informed through Facebook, 34% consulting civic organization or civic movement sites, and 30% using Twitter, 23% informed by Instagram, 19% reading forums, and 17% following parties' or candidate's sites (CEO, 2019).

1.4 General theoretical framework and structure of the thesis

The first aim of this thesis will be to define the general structure in which the media operate in Catalonia. To this purpose, the first theory regarded is the Media System Dependency (MSD), in order to portray the interaction of media operating in Catalonia with their social environment. The MSD theory suggests that the impact of media cannot be studied solely by analyzing the relationship between them and their audience, considering psychological characteristics at an individual level, but rather the tripartite interrelationship among audiences, media and society must be taken into account (Ball-Rokeach & DeFleur, 1976). Citizens' dependency on media increases under two conditions: when the media's functions play a central role as principal source of information; and there is a high degree of instability in society due to social conflict and social change.

These two conditions will be tested as hypotheses in the first article (chapter 2), which presents a descriptive picture of the evolution of media consumed in Catalonia based on an unpublished compilation of survey data about audiences. So data will challenge whether trends in the audience 1) indicate a central position of both, the Catalan and the Spanish media systems in Catalonia, and 2) if, considering the irruption of the debate independence in the Catalan institutions in 2012, there are significant differences in the evolution of media audiences in main broadcast media. To that end, the study will also include a regression analysis to check an alteration in the media audience trend in the last term of the year coinciding with the conflictive political environment experienced in the region every autumn since that year.

On a second stage, the thesis will follow the vast tradition of combining media content analysis with survey analysis, that may date back to the Chapel Hill study in 1968, when Max McCombs and Donald Shaw tested the agenda-setting function of media by checking if the most important problems answered by the survey respondents corresponded to the leading stories in the press (Wahl-Jorgensen & Hanitzsch, 2009). These “linkage studies” (De Vreese et al., 2017) address the question of whether the media usage is related to a given variable since content analysis reveals content patterns and survey data can explain attitudes.

Thus, a media content analysis will be conducted through a framing analysis in the second article (chapter 3). Framing can be defined as the media process of selecting some aspects of a perceived reality and making them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described (Entman, 1993). Media texts include frames, manifested by the presence or the absence of keywords, stock phrases, stereotyped images, sources of information, and sentences reinforcing clusters of facts or judgments. Framing is not only inherent to the text, but to the communicators, the recipients and the culture. Social scientists still have little to say about which of many competing frames will shape public opinion (Chong &

Druckman, 2007), and many questions in this field have gone largely unexplored. They complain that typical framing-effect studies focus on one-sided designs and there is little inside in competitive situations. They explain that a frame is effective if it can stimulate a significantly different distribution of opinions than an alternative frame when people are exposed to it.

Framing will enable the degree of parallelism of media content and political messages to be checked, testing the indexing model (Bennett, 1990), which claims that mass media look to government officials as the main source of most of the news they produce. This assumption reveals that journalists tend to “index” the range of voices and viewpoints in news according to the range of views expressed in mainstream government debate about a given topic. And unofficial voices are included when they express opinions already emerging in official circles. In short, the indexing model states that media have assumed a comfortable role as keeper of the official record while abdicating its traditional mandate to be an independent voice of the people. Bennett establishes three possible causes of this phenomenon: the will of the media to safeguard the business climate by providing a virtual news monopoly to the public officials; the consequence of the “transactional” or “symbiotic” relations between journalists and officials; and the result of a democratic, responsible trend which advocates favoring the views of public officials, as they are representatives of the people.

This parallelism assumed by the indexing model will be tested on media operating in Catalonia searching for notorious differences between those belonging to the Catalan media system and those belonging to the Spanish media system. This will shape the hypotheses of the third chapter and will cover three levels: 1) the tone applied by media to refer to political actors, 2) the use of conflict and strategic framing, and 3) the presence and salience of issue-specific frames designed from messages promoted by the Catalan and Spanish governments (Van Gorp, 2005 and Entman 1993).

Finally, the third article (chapter 4), co-authored with Dr. Ivan Serrano, draws from official surveys in order to assess differences in the perception of reality by media audiences depending on the main outlets consumed. It will focus on polarization of the Catalan public. Polarization is a political phenomenon affecting media which is characterized by increasing differences in opinion between political camps and more consistent opinions within those camps (Prior, 2007; Levendusky, 2010). So, explaining this tendency, there are both within-population principles: the dispersion of opinions and the cluster of positions in two separate camps; and between-population principles: the constraint and consolidation of opinions and structural parameters that bring together the members in each group.

It is widely accepted by scholars that polarization is a fact at the elite level, but there is a discussion about its reach at a popular level (Fiorina, Abrams & Pope, 2005; Abramowitz & Saunders, 2008). How this tendency relates to the media has also been a widely studied subject matter due to one factor in particular: the selective exposure derived from the rise of internet and cable TV in America, and the boom of partisan outlets such as Fox News (Prior, 2007; Morris, 2005).

With the aim of testing polarization at media level, the research will follow the methodology employed in cultivation studies. This concept is included in the Cultural Indicator Approach, which provided media studies and their long-term effect with a new dimension in the seventies. It refers to the contribution of media exposure to the viewer conception of social reality (Gerbner, 1998). Specifically focused on the TV, this research is oriented towards developing theories about the subtle and widespread impact of television. The main parts of Gerbner's approach consist of initially a content analysis of TV drama to extract the most recurrent, stable and overarching patterns of TV messages. Next, the responses to questions about social reality among those with varying amount of exposure to the world of TV are analyzed. The aim here is to determine whether those who spend more time watching television are more likely to answer these questions in ways that reflect the potential lessons of the TV world.

So the three hypotheses in the fourth chapter will seek to 1) evidence the popular polarization in the Catalan society based on the Catalan president's evaluation and its relationship to the independence debate; 2) highlight notorious differences in the perceptions of the reality between those consumers of preferably only Spanish media to be informed and those who preferably only consume Catalan media in terms of identification of the main problem of Catalonia and evaluating their political and economic situation; and 3) test whether the audiences of the major mainstream media consumed in Catalonia have become more homogeneous in their position towards the independence and their territorial preference over the last decade.

1.5 The pitfall of causality

Correlation does not mean causation. While correlation is one of the expected outcomes in the research developed in this thesis, there is no prospect of any causal relationship. Although the "media effects" concept should imply a "cause" by definition, the dynamic and endogenous nature of the linkages between the media and the public and the fact that media effects occur at different levels of analysis add an intrinsic complexity when it comes to determining the dependence between variables in communication theories.

Assuming this endogenous challenge, Gerbner (1998) reckons that the question of "what comes first" is misleading and irrelevant, as people are born into a symbolic environment with TV as mainstream. He states that cultivation is not conceived as a unidirectional but rather more like a gravitational process.

In media studies only the longitudinal designs, dealing with time series data, are supposed to avoid the threads on causal inference and skip the multiple issues related to time, such as the fallacy of confusing cause and effect, the fallacy of ignoring the past/future, the fallacy of the secular trend or the fallacy of the wrong timing (Yanovitzky & Greene, 2009).

2. ONE COUNTRY, TWO MEDIA SYSTEMS: THE EVOLUTION OF THE MEDIA AUDIENCE IN CATALONIA IN THE CONTEXT OF THE INDEPENDENCE DEBATE

2.1 Introduction

One of the main questions traditionally addressed by media studies is the behavior of the audience. The consumption of media cannot be explained simply as a bidirectional relationship between a free consumer and his/her chosen outlet; it also involves their political and social contexts. The Media System Dependency (MSD) theory assumes that the effect of media can only be understood in a tripartite relationship between individuals, media and society (Ball-Rokeach & DeFleur, 1976). According to its authors, people have a dependency to consume media in order to satisfy the need to understand one's social world, the need to act meaningfully and effectively in that world and the need to fantasy-escape from daily problems and tensions. The greater their needs, the greater their dependency on media and their ability to alter audience cognitions, feelings and behaviors.

This theory describes two conditions that heighten this influence, one concerning the media and the other, society. The first one assumes that some media information functions are more socially central than others. The greater the number and centrality of specific information media are, the greater the audience and the societal dependency on that medium. The second condition occurs when a relatively high degree of change and conflict is present in a society; as structural instability intensifies people's dependence on media information.

These two conditions (number and centrality of media and a period of conflict and changes) are the subject of this study in a context of competing media systems. It analyses the media audience in Catalonia, a region with a deep self-

identity, an own language⁵ coexisting with Spanish (48.6% of the Catalan population usually speaks Spanish while 36.3% usually speaks Catalan; and 6.9%, both [Generalitat de Catalunya, 2019]), two media systems (the Spanish and the Catalan) and since 2012 with an emergent social and political mobilization in favor of independence from Spain. The evolution of the media consumption in the region in the last decades and the behavior of the audience in the recent years, since this movement irrupted, are the two aspects analyzed in this paper from a quantitative perspective.

MSD combines the micro-level and the macro-level perspective of media studies, since it implies that society is necessary to understand the effects of media to individuals. It follows the classical argument by Emile Durkheim (Ball-Rokeach & Jung, 2009) that media are essential to the development of a modern society and extends it to the point that media is a system which is central to the functioning of personal and social life. It also shifts from the base that media power rests upon the power to persuade to regarding them as an informational system, evaluating media products for their potential information value, mixing entertainment and news and focusing on the relation between producers and active consumers.

This theory also presumes an endogenous interrelation which implies that altering the audience conditions can feed back in the form of changes in both society and the media, unlike the uses and gratifications approach, which focuses on the audience but not on the interrelations with the environment (Ball-Rokeach & DeFleur, 1976). According to the uses and gratifications theory, the audience is defined not as a passive spectator of media, unconditionally and uncritically exposed to the messages portrayed by the outlets, but as an active member of the communication process who seeks entertainment or information in order to be socially updated, to reinforce his opinions or to contrast his particular viewpoint (Katz, Blumler & Gurevitch, 1973; Rubin, 2009).

⁵ As defined in the Statute of Autonomy of Catalonia (2006), article 6.1: "Catalonia's own language is Catalan" and, previously, in its version of 1979.

An important part of the research in this field has been devoted to defining and classifying the various functions which media serve. A typology of media-person interactions could be organized in four satisfactions sought in media: diversion, as an escape from one's routine and problems; personal relationship, using them for a social utility and for companionship; personal identity, as a mechanism to reinforce one's values and to explore reality; and surveillance, to gain access to information (McQuail, Blumler & Brown, 1972). Another distinction could be made between a ritualized media use, consuming them for diversion; and an instrumental use, seeking content for goal-directed reasons (Rubin, 1984; as reported in Rubin, 2009). Instrumental use is more active and purposive, with greater audience intention, selectivity, involvement and potential influence, and it is a catalyst of media effects. Concerning specifically media as a source of news, seeking information may derive from "a need for reassurance that one is right, and attempts to correlate informational elements may stem from a more basic need to develop one's cognitive mastery of the environment" (Katz et al., 1973: 513).

MSD was conceived in the context of dominance of the traditional media, featured by few outlets reaching high and stable audiences. With the rise of internet, this approach was used by researchers mostly to address micro dependency relations with a particular media form such as television or Internet platforms, concluding that people depend on the internet to find in-depth specialized information and that some of these uses are common to traditional media; in both cases they seek the same broad content areas (Riffe, Lacy & Varouhakis, 2008). On the other hand, another theory derived from it: the communication infrastructure theory (CIT), taking a perspective less national and less media-centric (Ball-Rokeach & Jung, 2009). CIT is defined by a "storytelling system", including agents with storytelling production and dissemination resources such as media, political, religious and other institutions and large organizations at the macro-level; locally based organizations as community media and community organizations at the meso-level; and interpersonal networks at the micro-level (Ball-Rokeach, Kim & Matei, 2001).

The theory also assumes a “communication action context”, similar to the social environs of the MSD but focusing on the openness and the strength of the storytelling network, and considering “belonging” to a community as a crucial element for storytelling.

2.2 Media systems

From a macro-level perspective, MSD assumes the existence of a media system, which can be defined as all mass media organized or operating within a given social and political system (usually a state). This concept was initially referred to national media systems and became widely used after 1945, when there were clear vertical links between national governments and the regulation of media communications, and national media were mostly owned by large national firms and were predominantly oriented towards markets within a nation-state (Hardy, 2012).

So a media system is linked to a specific territory, commonly a nation-state, as it can be defined as “the actual set of mass media in a given national society, despite the fact that there may be no formal connection between the elements” (McQuail, 2010: 177 and 220). But McQuail also remarks that “in most countries the media do not constitute a single system, with a single purpose or philosophy, but are composed of many separate, overlapping, often inconsistent elements, with appropriate differences of normative expectation and actual regulation.” Also Hardy (2010: 4) remarks on the complexity of delimiting the boundaries of media systems and defining unambiguously the concepts “nation” and “state”, since in the United States of America many states are contained within a nation while in Europe “nation and state does not easily coexist” and there are states that contain more than one nation.

So a connection between media system and political system has been established in the most commonly used definition of the term. As reflected in the classical Four Theories of the Press (Siebert et al., 1956), the press always

takes on the form and coloration of the social and political structures within which it operates, and especially it reflects the system of social control where the relations of individuals and institutions are adjusted (quoted in McQuail, 2010: 175).

Another widespread typology describes three fundamental models of the relationship between national media systems and political systems (Hallin & Mancini, 2004) after studying seventeen Western democracies: the liberal model (in the United States and also, in a modified form, in the United Kingdom and its former colonies), the polarized pluralist model (in southern Europe) and the democratic corporatist model (in northern Europe). They are classified according to four major dimensions: the emergence of mass-circulation press, the involvement of the state in the media, the degree of political parallelism between the media and the state (or external pluralism), and the degree of professionalization. Based on this model, countries in the south of Europe developed radio and TV but only sports press and weekly human-interest magazines directed at women achieved mass-circulation (market-oriented newspapers only get to a small percent of the public, usually well educated, urban and politically engaged readers), the state has powers to rule the media market and media organizations reflect political tendencies, leaving less autonomy to the professionals.

According to this classification, the Spanish media system belongs to the polarized pluralist model, typical in the Mediterranean countries in Europe. It is one of the Western states with a higher degree of political parallelism between media and political parties (Fletcher et al., 2020). It is also characterized by the interventionist role of the state in the media system, having some ownership control over the media, giving state subsidies and involving in financing of newspaper sales. This strong role of the state has historically provided leverage to Spanish national TV and radio outlets versus the regional outlets, due to regulation favoring their implementation, according to some scholars (Gifreu, 2013 and 2014; Zallo, 2013). For instance, the creation of private TV channels was controlled by the Spanish government, which was initially only permitted by

law outlets with coverage of the whole state and in Spanish (in 1989), and the private regional channels were not authorized until the digitalization process of television, a decade later (Gifreu, 2014: 122). And in the radio scenario, in the late 1970s and early 1980s the state gave the first licenses after the dictatorship to nationwide Spanish channels, hindering the influence of regional and local outlets (Zallo, 2013: 273).

Spanish autonomous regions constitute a subnational area for media circulation. Some of them, however, are self-identified and somehow recognized as nations, with their own culture and language⁶, such as Catalonia, the Basque Country and Galicia (“nationalities”, as defined in the Spanish Constitution). They have autochthonous media systems competing with the Spanish system for the audience and, what is more, for imposing the viewpoint and the agenda (Zallo, 2013). The political debate in these regions has special features: they have more axes than the traditional left-right cleavage, since their media are also situated in the national autochthonous/Spanish cleavage. So the media system in these nations within Spain includes an in/out dimension, with a strong duality between Spanish outlets and the autochthonous ones struggling to be hegemonic and become the reference. It is from this perspective that it is considered that Catalonia has its own media system (with a public broadcast system, autochthonous private media groups, advertising market and a regulatory authority) coexisting with the Spanish media system.

Influenced by the Catalan and the Spanish reality, the notion of “communication space” was coined as the relationship between culture and media and a specific territory, together with common and individual interests (Jones, 2007). This geostrategic view refers to the reception area, the group of media consumers living in a specific territory. However, the scholar also warns that these spaces could not perfectly correspond to political structures nor homogeneous cultural realities, because several media spaces may overlap, and individuals can feel

⁶ The Statutes of Autonomy of Catalonia (2006), Basque Country (1979) and Galicia (2010) define Catalan, Basque and Galician languages as “own language” respectively, which are recognized as co-official together with the Spanish language.

closer to one of them or to none. They are not hermetic and their boundaries can be more or less precise.

The existence of a Catalan media system, within the boundaries of the Spanish media system harmonic with the structure of a state, has been theorized by some scholars since general Francisco Franco died in 1975, such as Josep Gifreu, Joan Corbella and Rosario de Mateo (Berrio, 1997). After nearly four decades of dictatorship, Spain turned to democracy, removed the ban on the Catalan language in the public sphere and a give certain decentralization of power with the recovery of the Catalan autonomy.

The Spanish mass media system took shape in Spain especially in the 1950s, with the introduction of the television that, together with the state radio, launched a public broadcast system strongly linked to the regime (González, 2016). Although Barcelona edited newspapers, the Catalan media system had to wait until democracy to see the light. In 1983 the Catalan government created an own Catalan public broadcast system, with a television and a radio station.

In the 1980s, the Catalan institutions and cultural movements advocated for their own media system with the Catalan language as the backbone, being a region with three communication “circuits” coexisting (Gifreu, 1983):

- 1) The Catalan circuit was produced, distributed and consumed within Catalonia and had Catalan as a preferred language although Spanish was also present. It included daily and weekly press, Catalan books, small radio stations, cinema and music productions and some decentralized programs in the Spanish public channel, TVE.
- 2) The Spanish circuit was by far the dominant and most influential in the society. Contents were originated in Madrid, exclusively in Spanish, and distributed radially throughout the state. It included most of the non-daily press consumed in Catalonia, the Spanish books, the main radio stations, the public TV (private channels did not arrive until the 1990s

and they were only Spanish), the cinema, the press agencies, and most of the music.

- 3) The international circuit, hard to describe because its flows tend to seep into the other two circuits in a subtle way, and adapting to the market needs. It includes translated books, music, TV productions, international news supplied by big agencies, international brands' advertising, videotapes and videogames.

In its initial stage, the concept of "Catalan communication space" was coined and developed by some Catalan scholars through a normative perspective, and the research in the field focused on answering the question of which policies should be adopted to strengthen the media in Catalan in all the territories where this language is spoken, including mainly the Valencian Community, the Balearic islands and the so-called Pays Catalan in the South of France as well as Catalonia (De Moragas Spà, 1986; Gifreu & Corominas 1991; Gifreu & Tresserras, 2007).

2.3 Methodology

Thus, the scope of this study will be Catalonia, where the market of mainstream media consumers reflects the coexistence of global Spanish outlets, whose content is mostly produced in Madrid, together with regional outlets whose content is mostly created in Barcelona. The latter have been traditionally hegemonic in the press and have grown until becoming majoritarian in the radio in the last decade; while the TV has always been dominated by the former.

Following the two conditions assumed by the MSD to determine the influence of media (their centrality and social uncertainty), the following hypotheses will be tested:

1. The aggregated share of the newspapers, radio and television audiences in the period 2002-2014 indicates a central position of both, the Catalan and the Spanish media systems in Catalonia, as each one represents a sound portion of the audience, stable over time, and so neither of them is in a marginal position.

To determine that “sound portion” it will be taken as a reference the European Union practice in market competence, concluding that controlling a share higher than 75% of a market is by itself indicative of a position of dominance over the rest of operators of that market (Velasco San Pedro, 2002: 193-194). The hypothesis assumes, thus, that neither of the studied media systems reaches the 75% of the aggregated audience share nor is below the 25%, that would indicate a marginal position.

2. With the eruption of the independence debate in the Catalan institutions in 2012 considered as the beginning of an ongoing conflict period, there will be significant differences in the evolution of media audiences of the main broadcast media in the final quarter of the year, coinciding with periods of high political intensity.

The basis of the analysis is data retrieved from the Estudio General de Medios (EGM), a study directed by the Asociación para la Investigación de los Medios de Comunicación (AIMC), an association of companies linked to advertisement and media, following a Joint Industry Committee structure (JIC), common in European countries, in which media outlets jointly agree on the terms of the audience measurement and then invite research companies to conduct it (Green, 2007). AIMC tests the audiences of the main outlets throughout Spain and its regions by surveying since 1975. Particularly for the Catalan universe, EGM yearly interviews samples of 23.449 people over 14 years old for radio listeners (margin of error of $\pm 0.19\%$, with a confidence level of 95.5%), 11.162 for press readers ($\pm 0.33\%$), and 7.227 for TV viewers and multimedia users ($\pm 0.35\%$). This was the size of the sample in 2015, but it has been increasing

over the years⁷. Interviews are conducted in three waves every year (disclosed in April, July and December) and they are mostly carried out face to face and, complementarily, by telephone (Gabardo Vallejo, 2014). The interviewees are asked what TV/radio/newspaper consumed yesterday.

Although AIMC publishes annually a general framework of the Spanish audiences, including an historical evolution of media consumption, serial data dealing exclusively with the Catalan universe were unpublished and are provided in this article for the very first time⁸. All the results correspond to the daily consumption of mainstream media, aggregating data for the three annual waves of surveys. The period analyzed depends on the elder data obtained, which is different in every media.

Social media and online outlets have been excluded from this study (at least in its initial stage) due to the inexistence of a measuring instrument similar to EGM which includes a wide range of sites.

In the analysis, beside the variable type of medium (newspapers, radio or TV) another variable has been introduced which is whether an outlet belongs to the Catalan media system or to the Spanish media system (or simply Spanish outlets versus Catalan outlets), according to the following definitions:

⁷ The EGM sample consisted of 5.288 interviews in Catalonia in 1989; 6.042 in 1999. Two years later it expanded: 6.513 interviews for press and TV, and 11.079 for TV in 2001. Regarding the random sampling method: there are multimedia face to face interviews (for every 6 randomly selected interviewees, there is another one selected considering quotes of gender, age and working situation) and multimedia online interviews (half of the interviewees are randomly called by phone and sent a questionnaire, and the other half belong to a panel group). Extensions of the sample answering press, radio and TV questions are done by random calls.

⁸ See Appendix 1 for the full detail of EGM data compiled by the author.

A Spanish outlet is defined in this research by these requisites:

1. Its main newsroom is located in Madrid (or anywhere else in Spain but Catalonia).
2. Its informative content (distributed in Catalonia) is mostly produced out of Catalonia, but in Spain.
3. Its target audience is the entire Spanish population.

Contrarily, a Catalan outlet is defined by these conditions:

1. Its main newsroom is located in Barcelona (or anywhere else in Catalonia).
2. Its informative content (distributed in Catalonia) is mostly produced in Catalonia.
3. Its target audience is pre-eminently the Catalan population.

Some nuances should ideally be considered within these categories, such as the fact that almost all the Spanish outlets have a secondary newsroom in Barcelona and consequently a part of their content is produced in Catalonia, with regional sections in the newspapers and opt-out programming in the TV and radio stations; or the fact that the diffusion of some Catalan outlets reaches beyond the Catalan territory, with TV and radio broadcast in other Catalan speaking regions, and newspapers also distributed in Madrid or other parts of Spain. Nevertheless, these nuances should not invalidate either category, provided that they represent the smallest part of the journalists/content/audience of the media.

Another discussion could be raised around the non-inclusion of the origin of the ownership in the conditions of categorization, as some Catalan outlets belong or belonged in the past to non-Catalan groups and some Spanish outlets had a significant participation of Catalan media groups. Undoubtedly, ownership is one of the major factors conditioning the editorial line of an outlet, as there may be (in a lower proportion) advertisers and public administrations providing

subsidies. However, there are other elements intervening in the frame-building of news, such as journalists and external sources (Scheufele, 1999) and there is the requirement that the frames transmitted through media be shared by the audience in order to be understood, as frames are tied in with culture (Weaver, 2007).

Language is also excluded as a variable to categorize media although it could be a crucial factor in explaining the choices of the audience. The Catalan language has been a driving motivation for the conception of the so-called Catalan Space of Communication (Gifreu & Corominas, 1991; Gifreu & Tresserras 2007), which takes the language as a core element of its media system, thought to embrace not only Catalonia but the whole Catalan linguistic area (mostly Valencian Country and Balearic Islands). Language is considered as the most distinctive discriminant factor in the relationship between media ecosystems and language ecosystems (Gifreu & Marí, 2014).

However, this variable has eluded this analysis because, in general terms, all the Spanish outlets produce their content in Spanish while nearly all the Catalan outlets do so in Catalan, except for some bilingual newspapers each of which publishes editions in Catalan and Spanish every day, with the same content (La Vanguardia, El Periódico and the provincial Segre).

Two methodological notes must be clearly exposed to understand the figures. Firstly, this study expects to take full advantage of all the data provided by EGM in order to obtain the broadest possible picture, although not all the media audiences have equivalent data available for the same period. This premise implies using different time scopes depending on the media: according to the supplied database, comparable annual data of newspaper audiences in Catalonia range from 1986; however, equivalent data of TV media in a regional scale range from 1997 and, regarding radio audiences, similar data are not available until 2002 (before then, data are not provided for radio channels). As for quarterly data, the earliest available is from 2004 and corresponds only to TV and radio's audiences. This explains different starting years in the analysis.

Moreover, there is also a limitation in studying the total magnitudes of the audience beyond 2014 because one of the media holdings measured (Mediaset, owning the TV channels Telecinco and Cuatro) abandoned the joint industrial committee responsible for the surveying in 2015⁹. This limitation determines the last year of the descriptive study, but it has not jeopardized the regression analysis, ending in 2017, since it processes each quarterly audience's outlet as a unit of analysis and is not performed at an aggregate level.

The second methodological note is that additions of the audience of several media are made in the following pages in order to compare the magnitudes of readers/listeners/viewers, but they do not reflect a total number of people, since the consumption of one outlet does not exclude the consumption of others by the same interviewee.

2.4 Media audience trends in Catalonia

As a starting point, collected information shows that, in the last decade, media consumption in Catalonia has experienced similar trends as in other Western countries (Table 1): a decline in newspapers readers, a dramatic increase of internet consumers with it becoming the second platform in terms of audience last year and a stability of TV viewers. What is more particular is the evolution of radio listeners, the number of which has been progressively growing following a slight general decrease in recent years in Spain.

⁹ "Mediaset Abandona el EGM". (2015, February 24). *La Vanguardia Digital*. <https://www.lavanguardia.com/television/audiencias/20150224/54426477405/mediaset-abandona-egm.html>

Table 1: Evolution of media penetration in Catalonia (%)

	NEWSPAPERS	INTERNET	RADIO	TV
2004	45.8	20.3	56.0	88.0
2005	44.8	23.7	55.6	88.8
2006	45.6	27.8	55.1	87.7
2007	45.1	31.3	52.3	86.4
2008	45.8	36.1	52.5	87.1
2009	43.6	40.0	56.1	87.0
2010	42.4	45.4	57.8	85.7
2011	42.2	50.6	59.7	87.2
2012	39.0	55.5	64.7	87.4
2013	35.2	61.0	63.0	88.6
2014	31.4	67.7	60.6	87.7

Source: Elaborated by the author based on data supplied by EGM.

These media usage trends in Catalonia are consistent with those reported around the world. According to Zenith's Media Consumption Forecast 2016 based on time spent consuming media in 71 countries (Austin et al., 2016) TV still dominates global media consumption by far (177 minutes per day in 2015) although a slight tendency to decrease is detected in the last years (190 mins. in 2010). The Internet is in second position (110 mins. per day in 2015), and has doubled the time of consumption in only five years (45 mins. per day in 2010). Time spent listening to the radio (55 mins. per day in 2015) has a slight tendency to decrease around the world (60 mins. in 2010), unlike in Catalonia. But the greatest losses in terms of consumption are for the newspapers, with almost a third of time less spent reading them (14 mins. in 2015 versus 20 mins. in 2010). The results in Spain show a higher time spent by the public watching the TV (234 mins. per day in 2010 and 2015) and listening to the radio (105 mins. per day in 2015, and 107 mins. in 2010); while a shorter time devoted to internet (103 mins. per day in 2015, 57 mins. in 2010) and to newspapers (10 mins. per day in 2015, and 15 mins. in 2010).

In this context of progressive decline in press reading, the four newspapers published in Barcelona (La Vanguardia, El Periódico, l'Ara, l'Avui/El Punt Avui) sold 386,238 units in 2000, while the four press published in Madrid and distributed as well in Catalonia (El País, El Mundo, ABC and La Razón) sold 95,686 units the same year. This proportion of Catalan press in 2000 (80.1%) remained quite stable for more than a decade (82.7%) in 2012. The four outlets from Barcelona accounted for 299,497 sold papers that year, while those from Madrid sold 62,775 units (Corbella & Cordero, 2013).

This dominion of the press published in Barcelona in terms of sales is also reflected in audience tests. Table 2 shows that El Periódico and La Vanguardia (owned by Grupo Zeta and Grupo Godó) have remained for almost four decades as the more read newspapers in Catalonia, with results well above their competitors.

Unlike the audio-visual sector, in the press field being published in Barcelona does not imply the use of Catalan language. Actually, for many years the two main newspapers were only in Spanish. In 1997 Segre and El Periódico introduced a Catalan version, therefore since then they can be found in the kiosk in both languages. La Vanguardia followed suit in 2011 (Gifreu & Marí, 2014).

The leading newspaper published in Madrid, El País, has historically maintained third position in this ranking (excluding the free press and sports press) until very recently: it was overtaken by El Punt Avui for first time in 2014, the merger of the pioneer historical newspaper in Catalan Avui and the most widely read regional newspaper El Punt, originally from Girona. That year, the three most read publications in Catalonia were published in Barcelona, as was the fifth, Ara (established in 2010). A sixth newspaper entered the charts with historic daily readership of around 100,000: Segre, a regional publication published in Lleida and distributed in its province.

Table 2: Generalist daily newspapers over 100,000 readers in Catalonia

1986		1996		2006		2014	
1. El Periódico (C)	600	1. El Periódico (C)	952	1. El Periódico (C)	720	1. La Vanguardia (C)	654
2. La Vanguardia (C)	567	2. La Vanguardia (C)	698	2. La Vanguardia (C)	667	2. El Periódico (C)	485
3. El País (S)	205	3. El País (S)	173	3. El País (S)	221	3. El Punt Avui (C)	151
4. Avui (C)	143	4. Avui (C)	158	4. El Punt (C)	144	4. El País (S)	148
				5. Avui (C)	114	5. Ara (C)	118
						6. Segre (C)	102

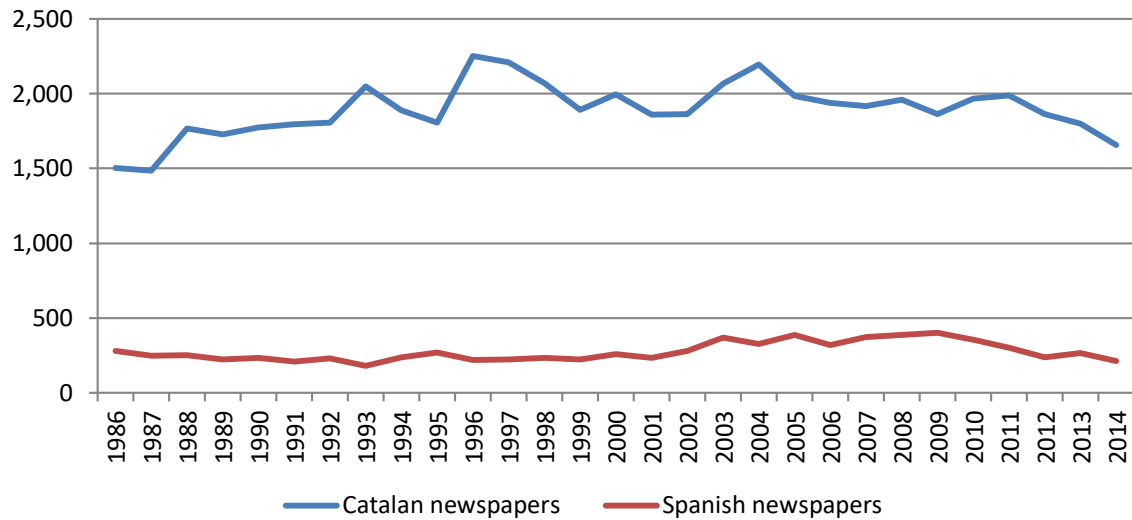
Source: Elaborated by the author based on data supplied by EGM.

(Thousands of readers. C indicates Catalan outlets, while S represents Spanish outlets)

This ranking includes the rest of the newspapers published in Madrid, which in 2014 accounted altogether for 64,000 readers, and the rest of the Catalan regional press, which collected 147,000 readers the same year according to EGM.

Considering all the readers of these outlets aggregated and categorized according to their origin (whether if they are edited in Madrid or in Catalonia), Figure 1 depicts the considerable gap between the consumption of Catalan press (practically always over the 1,500,000 readers) and that of the Spanish press (never exceeding 400,000). 1996 registered the largest difference between the two media systems (the Catalan press audience was over 2,250,000 readers, while the Spanish press was 2 million fewer, with 219,000 readers). Whereas the narrowest difference was posted in 1986 of 1,226,000 (1,505,000 readers of the Catalan newspapers versus 279,000 of the Spanish papers). The graph also reflects the falling of the audience of all the printed dailies in the last years. Note that the addition of readers does not imply that this is an extra number of people reading newspapers, because readers can be shared among several outlets.

Figure 1: Thousands of daily newspaper readers in Catalonia by media system



Source: Elaborated by the author based on data supplied by EGM.

Unlike that trend, the generalist radio is experiencing a golden age in Catalonia, with an expansion of the audience (1.8 million listeners in 2014, nearly 0.3 million more than in 2002). Two Catalan stations took the lion’s share of the market in the last decade (RAC1 and Catalunya Ràdio), accumulating 1,246,000 listeners together in 2014 (around the 60% of the market), while Spanish stations (SER, Onda Cero, Cope and RNE) gathered 797,000 listeners the same year. This majority of the audience in the Catalan language radio is relatively recent. In 2008 the two Catalan stations had 792,000 listeners, while the Spanish outlets had 897,000.

The public radio belonging to the Catalan government, Catalunya Ràdio, had led the audience until 2009, when it was surpassed by another Catalan but private radio station, RAC1 (property of Grupo Godó, the same group as La Vanguardia), as Table 3 shows. The second position has traditionally been held by the main Spanish radio station, SER (owned by the same media group as El País: Prisa), but this changed when RAC1 took over the leaderboard pushing SER into third place. The other Spanish stations (the public RNE and the private Onda Cero and Cope) also have a relevant share of the Catalan

audience. Since 2003, another Catalan public station achieved 100,000 listeners: Catalunya Informació, the only 24-hours information outlet on the leaders' list.

Table 3: Talk and informative radio stations over 100,000 listeners in Catalonia

2002		2008		2014	
1. Cat. Ràdio (C)	511	1. Cat. Ràdio (C)	473	1. RAC1 (C)	697
2. SER (S)	390	2. SER (S)	439	2. Cat. Ràdio (C)	549
3. Onda Cero (S)	261	3. RAC1 (C)	319	3. SER (S)	361
4. RNE (S)	180	4. Cope (S)	138	4. Onda Cero (S)	141
5. Cope (S)	116	5. Onda Cero (S)	132	5. Cat. Informació (C)	137
		6. Cat. Informació (C)	108	6. Cope (S)	135
				7. RNE (S)	107

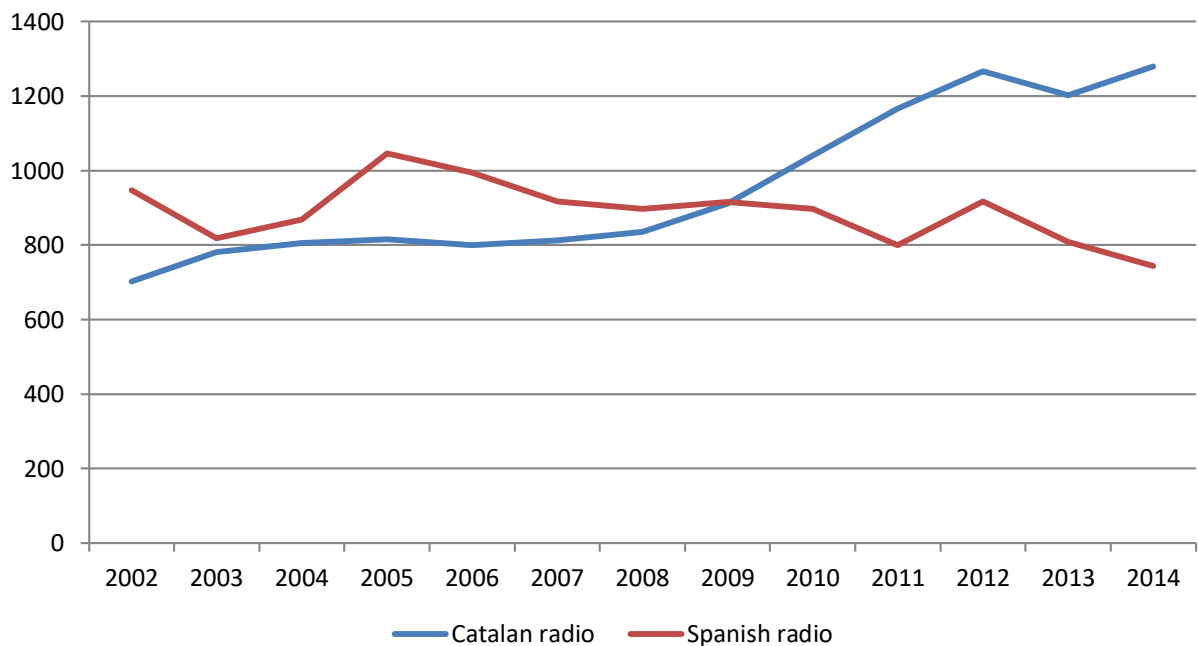
Source: Elaborated by the author based on data supplied by EGM.

(Thousands of listeners. C indicates Catalan outlets, while S represents Spanish outlets)

Consulting data from the entire Spanish media universe, Catalunya Ràdio accounts shaking up 1.3-1.6% of the global audience since 1993, but at the same time RAC1 started from scratch in 2001 and reached a share of 1.8% in 2014. In 2014, with 700 and 571 million of listeners respectively, they are the fifth and sixth most-listened to outlets in Spain, after the global Spanish ones.

These two outlets have led a progressive transition in the audience of talk radio listeners, from a position of inferiority or equals of the radio in Catalan to becoming dominant in the market, as Figure 2 illustrates.

Figure 2: Thousands of talk radio listeners in Catalonia by media system



Source: Elaborated by the author based on data supplied by EGM.

The TV scenario in the last decade in Catalonia presents more variability due to the proliferation of thematic channels to the detriment of the generalist outlets. So while in 2004 the main generalist channels (TV3, TV1, Antena 3, Telecinco) accounted for the 83.4% of the share according to EGM, in the following years the same outlets had to compete for the audience with Cuatro and La Sexta (two new generalist Spanish TV channels broadcasting since 2005 and 2006 respectively) and 8TV (a new Catalan one broadcasting for the whole region since 2003), and even altogether reached a reduced share of the 71.7% in 2014.

The Spanish channels have always achieved the greatest share of the TV audience in Catalonia (Table 4), especially since the liberalization of the market and the introduction of the private channels Telecinco, Antena 3 and Canal+ in 1990, complementing the public TVE. The Catalan offer has been provided almost exclusively by the public sector, with TV3 and other channels in its group Corporació Catalana de Mitjans Audiovisuals (depending on the Catalan

government) such as Canal 33 (or K3 / C33) and 3/24. The incipient private Catalan TV offer is limited to 8TV, broadcasting since 2001 but with limited results. TV3 has led the Catalan audience ranking for some years, particularly before 2003. Since then, competition for first position has been close disputed by the Catalan channel, Antena 3, Telecinco and TVE, with a variable outcome every year.

Table 4: TV channels over 100,000 viewers in Catalonia

1997		2007		2014	
1. TV3 (C)	2,433	1. Antena 3 (S)	1,706	1. Antena 3 (S)	1,363
2. Telecinco (S)	2,050	2. Telecinco (S)	1,623	2. Telecinco (S)	1,254
3. Antena 3 (S)	2,030	3. TV3 (C)	1,436	3. TV3 (C)	1,243
4. TVE (S)	1,801	4. TVE (S)	1,231	4. TVE (S)	913
4. Canal 33 (C)	781	5. Cuatro (S)	772	5. La Sexta (S)	643
5. La 2 (S)	771	6. La Sexta (S)	470	6. Cuatro (S)	627
6. Canal + (S)	388	7. La 2 (S)	386	7. 8TV (C)	313
		8. K3 / C33 (C)	261	8. La 2 (S)	220
				9. 3/24 (C)	148

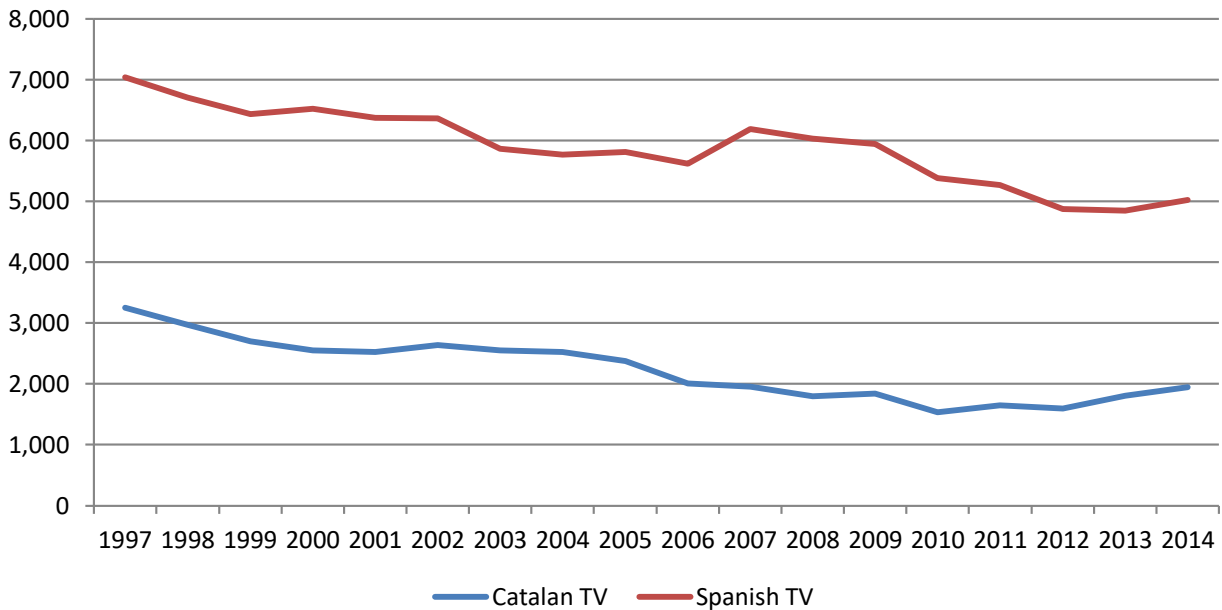
Source: Elaborated by the author based on data supplied by EGM.

(Thousands of viewers. C indicates Catalan outlets, while S represents Spanish outlets)

The general trend of the sector can be observed in Figure 3, with a progressive decline in the generalist TV and a gap of between 3,000,000 and 4,000,000 of accumulated viewers between the Catalan channels and the Spanish ones.

Lastly, one final perspective of the analysis focuses on a global picture of media published and broadcast in Catalonia, independently of the sector. Since EGM uses the same methodology (asking the interviewees which newspaper/radio station/TV channel they consumed the previous day and presenting the results in terms of absolute daily audience and audio-visual outlet share) it facilitates the homologation of data.

Figure 3: Thousands of generalist TV viewers in Catalonia by media system



Source: Elaborated by the author based on data supplied by EGM.

A multimedia ranking has been calculated (Table 5) comparing the ten most consumed outlets last year and the twelve preceding years. The outcome shows that the four main generalist TV channels (Antena 3, Telecinco, TV3 and TVE) remain at the top of the list although private outlets have surpassed the public ones and their impact relative to population has clearly diminished (from over 30% to around 20% or less). Moreover, secondary public channels (K3 / C33 and La 2) have disappeared from the ranking while new TV channels have entered.

As for the press, the two main newspapers of Barcelona (El Periódico and La Vanguardia) occupied the 5th and 7th positions in 2002. Twelve years later, both outlets continue on the list, but with different evolutions: La Vanguardia has escalated one position and gained some readers, while El Periódico has fallen to the last position of the top ten, provided that its audience has diminished.

Lastly, two radio stations make it into the ranking: Catalunya Radio maintains half a million of listeners and 9th position. However, the big change is that SER has been pushed out of the top 10 and RAC1 appears in 5th position, being the most consumed outlet after generalist TV.

Table 5: Top 10 of mainstream media outlets according to their audience in Catalonia

2002			2014		
1. TV3 (C)	1,897	(35.2)	1. Antena 3 (S)	1,363	(21.7)
2. TVE (S)	1,806	(33.5)	2. Telecinco (S)	1,254	(20.0)
3. Antena 3 (S)	1,787	(33.2)	3. TV3 (C)	1,243	(19.8)
4. Telecinco (S)	1,758	(32.6)	4. TVE (S)	913	(14.6)
5. El Periódico (C)	688	(12.8)	5. RAC1 (C)	697	(11.1)
6. La 2 (S)	652	(12.2)	6. La Vanguardia (C)	654	(10.4)
7. La Vanguardia (C)	614	(11.4)	7. La Sexta (S)	643	(10.3)
8. K3 / C33 (C)	570	(10.6)	8. Cuatro (S)	627	(10.0)
9. Catalunya Ràdio (C)	511	(9.5)	9. Catalunya Ràdio (C)	549	(8.8)
10. SER (S)	390	(7.2)	10. El Periódico (C)	485	(7.7)

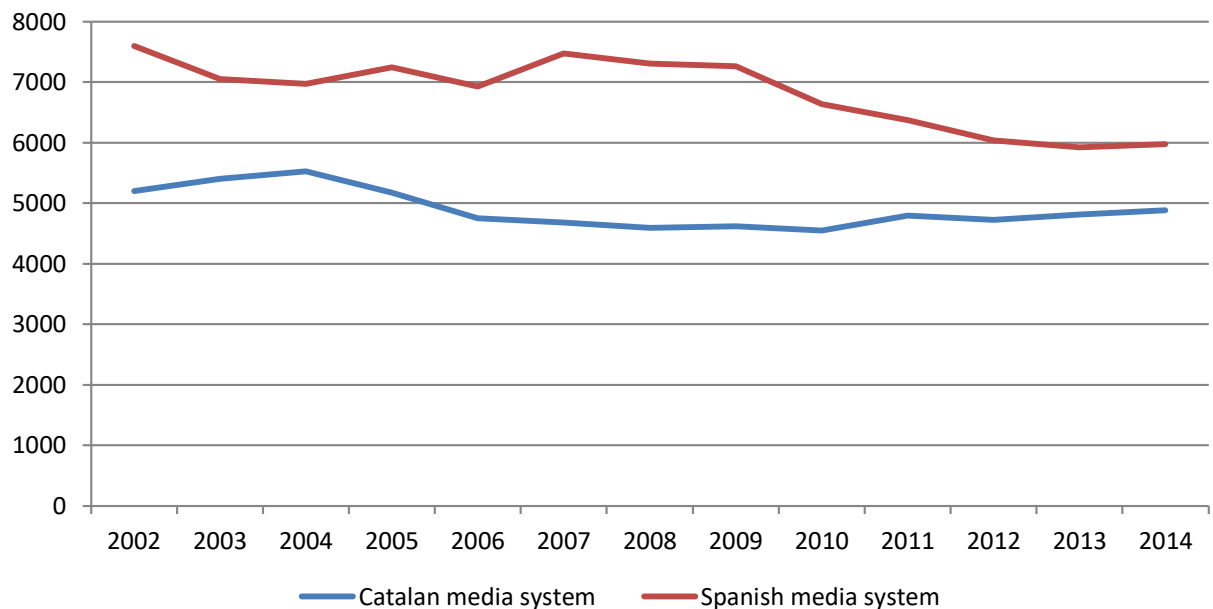
Source: Elaborated by the author based on data supplied by EGM.

(Thousands of viewers/readers/listeners and percentage over population between brackets. C indicates Catalan outlets, while S represents Spanish outlets)

Having collated the audience results of all the media categorized by the two media systems (Figure 4) we can see that Spanish outlets have traditionally been superior in Catalonia over the last twelve years. However, the differential between Spanish and Catalan media audiences has been reduced to half of what it was in 2002 (2,392,000 in 2002, versus 1,093,000 in 2014), as the Spanish media audience has decreased by more than 20% in this period while the Catalan media audience decreased by 6%. In the last year of the period the Catalan outlets account for 45% of the market, with the Spanish outlets representing 55%; while twelve years before the Catalan system represented 41% and the Spanish system, 59%. In the studied period with aggregated data

(2002-2014) the Catalan media system share has ranged from 38% to 45%, while the Spanish media system has ranged from 55% to 62%.

Figure 4: Thousands of mainstream outlets' consumers in Catalonia by media system



Source: Elaborated by the author based on data supplied by EGM.

At this point, it can be concluded that data evidences a historically consolidated audience of the Catalan newspapers and more recently the Catalan radio has gained important share of its market. However, Catalan TV presents a minority position. Moreover, in a context of decline of mainstream media in favor of social media and internet outlets, Catalan media have maintained their audience in overall terms with few losses, due to the puissance of radio listeners (at the expense of Spanish stations) and the lower declines in TV viewers and newspaper readers compared to the Spanish media. This divergent performance of the two systems is leading to a convergence of the magnitude of their audiences.

2.5 The audience since the Catalan process

Based on the EGM data and following the MSD theory a question arises: have media audiences experienced any change in their behavior coinciding with the Catalan independence debate, which has produced large demonstrations and uncertainty in the society?

Since 2012, the political agenda in Catalonia has experienced a shock due to the eruption of this debate in the social and political arena. The pro-independence movement gained momentum that year out of the blue with a huge demonstration in the streets of Barcelona on the Catalan national day, September 11th. Since then, on September 11th every year, huge demonstrations in favor of independence have been organized, with around a million supporters as per police counts (Guinjoan, Rodon & Sanjaume, 2013). Besides the marches, since 2012, autumn has also become a typical season for popular mobilization and intense political debate due to elections and other voting processes. Again in 2012, the Catalan president called Parliament to an early election following the September demonstration, which took place in November. In 2015 and 2017, other fall elections were held. And in 2014 and 2017, the Catalan government and the pro-independence parties and civil organizations managed to set up a non-binding consultation and a referendum on independence in which more than two million people participated on both occasions, despite the ban by the Spanish government. This entire debate has been referred to as the Catalan process.

After processing EGM audience growth data of every TV and radio outlet from the third and last measured term (conducted in October-November) of the last 14 years as statistical units and distinguishing between two periods (2004-2011 and 2012-2017) some evidence confirms a new behavioral trend. The type of audio-visual media (TV or radio) and the media system (Catalan or Spanish) have also been considered as possible factors explaining the audience evolution, given the rapid rise of the Catalan radio stations observed in the last years. Therefore, a multiple linear regression analysis has been carried out

taking the audience quarterly growth as the dependent variable and including three explanatory dichotomous variables: whether the units are observed since 2012 (within the social and political mobilization period following the independence debate) or before, whether they are from media belonging to the Catalan system or to the Spanish system, and whether they are from radio stations or from TV channels. Finally, two numerical control variables have been taken into account in the model: the growth of the audience of the same media in the other trimesters of the year and the general increase of the audience in the rest of Spain, without Catalonia.

Table 6: Multiple linear regression analysing the audience growth of media outlets the fourth quarter from 2004 until 2017

	Estimated Beta	Standard error	P-value	T-value
(Constant)	-1.004	0.282	0.000 ***	-3.565
Since 2012 vs before 2012	1.136	0.355	0.002 **	3.197
Belonging to Cat system vs Sp.	0.727	0.375	0.054 †	1.942
Being radio vs TV	0.407	0.347	0.243	1.173
Increase in the rest of the year	-0.452	0.083	0.000 ***	-5.449
Increase in the rest of Spain	0.319	0.197	0.107	1.621

(†) p < 0.1 // (*) p < 0.05 // (**) p < 0.01 // (***) p < 0.0

Source: Elaborated by the author based on data supplied by EGM.

This model is significant (significance of F-statistic is 0.000) and explains the 27% variance in growth (R-squared 0.270), as showed in Table 6. Regarding the influence of the variables, it shows that the audience's growth the rest of the year and the fact that it is observed before or since 2012 are significant. Slightly significant is whether the unit belongs to the Catalan system or the Spanish. Results verify that the audience increase produced since 2012 or before is the most influential variable on growth, followed by the media system. The evolution in the rest of the year is less influential.

Differences in the average growth before and after the boom of the pro-independence mobilization are highly significant ($p < 0.01$) especially in the two Catalan radio stations, RAC1 and Catalunya Ràdio (Table 7). Coinciding with the Catalan process, their audiences have rocketed in the third quarter since 2012. Less significant but still relevant is the evolution of the audience for three Spanish TV channels la Sexta ($p < 0.05$) and TVE and Cuatro ($p < 0.1$). In the case of the public Spanish television, in this second period its audience has decreased more than in any other outlet. Meanwhile, the two youngest Spanish private channels have experienced a dramatic increase in terms of audience since 2012. Both radio stations together and TV channels globally display significant growth ($p < 0.05$), more intense for the television channels.

But the most significant variable ($p < 0.01$) which explains that this change in behavior is geographical: Catalan media globally increased their audience by an average of 1.75 additional points in the fourth quarter in the second time period. On the contrary, there is no significant difference in the growth of the Spanish outlets in the second period in relation to the first period. Considering all 143 observations of the database, there has been a highly significant annual growth of the outlets of 1.1 points in the fourth quarter since 2012 when compared with before 2012.

Table 7: T-test comparing the average audience growth of media outlets in the fourth quarter from 2004 until 2017

	Mean 2004-2011	Mean 2012-2017	Diff.	P-value	T-value	Observations (1 st /2 nd periods)
RAC1	0.20	2.03	1.83	0.006 **	-3.432	14 (8/6)
Catalunya Ràdio	-1.02	1.69	2.71	0.004 **	-4.332	14 (8/6)
SER	0.18	-0.08	-0.26	0.627	0.504	14 (8/6)
Onda Cero	0.02	-0.29	-0.31	0.389	0.898	14 (8/6)
COPE	0.95	0.10	-0.85	0.234	1.290	14 (8/6)
All radio	0.06	0.69	0.63	0.046 *	-2.036	70 (40/30)
TV3	-0.25	2.60	2.85	0.220	-1.323	14 (8/6)
TVE	0.39	-2.30	-2.69	0.089 †	1.871	14 (8/6)
Antena 3	-2.01	-0.02	1.99	0.158	-1.506	14 (8/6)
Telecinco	-1.28	0.90	2.18	0.245	-1.375	11 (8/3)
Sexta	-1.26	1.75	3.01	0.048 *	-2.313	11 (5/6)
Cuatro	-1.10	1.43	2.53	0.097 †	-2.046	9 (6/3)
All TV	-0.89	0.64	1.53	0.035 *	-2.169	73 (43/30)
Catalan media	0.36	2.11	1.75	0.002 **	-3.337	42 (24/18)
Spanish media	-0.46	0.05	0.51	0.237	-1.192	101 (59/42)
GLOBAL	-0.43	0.67	1.1	0.006 **	-2.824	143 (83/60)

(†) $p < 0.1$ // (*) $p < 0.05$ // (**) $p < 0.01$

Source: Elaborated by the author based on data supplied by EGM.

2.6 Conclusions

Considering the data and the statistical analysis exposed, from the evolution of the audience trends observed in this study it can be resolved that none of the media systems coexisting in Catalonia has a marginal position according to their audience results and stability, since both account for an aggregated audience share ranging between 38% and 62% in the analyzed period. This centrality can also be proved considering the number of outlets (five of the ten top media in terms of audience were Catalan and five were Spanish either in 2002 and 2014). So both have a central position required in the MSD for a media system to become influential, which confirms the first hypothesis.

On the other hand, the regression analysis indicates that the social and political mobilization coincides with a change in the habits of consumption of media, as the variable being observed since 2012 is significant and the strongest in our model to explain the evolution of the global audience in the last term of the year and this has been quantified in a growth mean of 1.1 percentage points of the audience in this period every year. This is the second condition, concerning periods of change and conflict in a society, enhancing the influence of media on the audience according to the MSD and verifies the second hypothesis.

So in terms of MSD it can be concluded that the conditions existing in Catalonia in the analyzed time period favor an influential role of both Catalan and Spanish media over citizens, as both systems have a centrality in the Catalan society, and the political uncertainty has increased the need for information and, thus, heightened the attention paid by society to the media. The behavior of the Catalan audience reflected in the analysis reasserts, therefore, the dependency relationships assumed by this theory.

The extension of this analysis to the following years presents worse conditions because EGM no longer involves all the main media outlets consumed in Catalonia since 2015 (as explained in the methodological notes). However, future research in the field could be developed focusing on causation, which requires different tools than those used in this article. Causal relationship could be checked by testing the changes in the need for information due to the Catalan process at an individual level, through experiments, or analyzing the impact of an intense political period on the audience at a macro-level, using longitudinal surveys.

3. THE INDEXING MODEL IN THE CATALAN CONFLICT: FRAMING BETWEEN THE RIGHT TO DECIDE AND THE RULE OF LAW

3.1 Introduction

Public opinion is not a fixed and permanent snapshot but rather a continuous flow of thoughts and emotions of a society, interconnected and channeled in good measure through the media and subject to the efforts of elites to influence it. Depending on how elites decide to approach issues, citizens are exposed to several and opposed framings stemming from a competitive debate among parties or ideological sides (Chong & Druckman, 2007). What is the role of media in this competition? Scholars differ on that question, with views ranging from models of low journalistic agency and high exogenous influence in news framing (Van Gorp, 2005; Bennett, 1990) to the opposite tendency, assuming a strong and active role of journalists in shaping news frames (Neuman, Just & Crigler, 1992; Semetko & Valkenburg, 2000) in a scale locating their studies based on the level of journalists' activity (Lecheler & De Vreese, 2018). A semi-independence relationship between media and political elites has been theorized by the indexing hypothesis (Bennett, 1990), lately considered a proven theory or model (Bennett, Lawrence & Livingston, 2007; Lawrence, 2019), which describes a dependency of the journalistic practice from the political representation and, specifically, a correspondence between the balance of opinions appearing in media and the range of voices represented in the government and the parliament. This connection can be explained either as an attempt by the media to safeguard a business climate through a journalistic routine, as a consequence of the control of information by officials or as an act of democratic responsibility. As a result, journalists calibrate the news staying within the sphere of official consensus and the conflict displayed by officials, leaving voices outside of power to one side.

Previous research on indexing theory has been mostly centered, at least initially, on the United States and focused on foreign affairs, since American media have been regarded as one of the most competitive and free press systems and foreign policy-making dynamics are easier to measure compared to domestic policy areas, where multiple actors and institutions of different levels are involved (Bennett, 2019). The American media belong to the liberal model, explained by the fact that commercial newspapers developed early and displaced other forms of media, and characterized by limited state intervention in media compared to other systems, a strong form of journalistic professionalism inspired by the “objectivity norm” (the ideal to take a neutral position) and a low degree of parallelism between political parties and outlets (Hallin & Mancini, 2004). Similar studies carried out in other media systems, particularly in Europe, have demonstrated that, while in the US the media follow the patterns of institutional decisions, in Great Britain they tend to index guided by the course of party debate (Alexseev & Bennett, 1995) and also in Germany, in a context of a diversity of parties, several studies have confirmed the theory (Vogelsang & Fretwurst, 2005; Maurer, 2005; Weiss & Weiss, 2008; and Vowe & Dohle, 2007; all quoted in Bennett, 2019).

Based on the indexing model, the research question of this chapter is to what extent alignment exists between messages promoted by the political system and cues in the media system in the context of two competing governments to persuade public opinion in a given territory, as is the case in Catalonia with the conflict about its independence. Besides the peculiarity of studying the indexing model in a southern region of Europe, this topic provides more particularities justifying the relevance of the study: unlike most of the previous research, mostly based on international affairs, this one is focused on an internal matter involving several levels of administration meaning that the geographical proximity of the media to each government layer is the key element challenged in this research, rather than the temporal dimension which most previous studies have centered on.

Public opinion has experienced a dramatic shift in Catalonia in the recent decade, in which self-determination has dominated the public agenda and an increasing view favoring the Catalans' right to decide the future of the Spanish autonomous region in a referendum has been observed in surveys. This research analyses the correlation between the political elites' arguments spread from the Catalan and the Spanish governments with the information reported by media. The analysis takes the perspective of framing, one of the phenomena that has been paid more interest in media studies the last decades (Weaver, 2007). Framing can be understood as a dynamic process of applying a frame to an issue and it has two important qualities: they include factual assertions but go beyond the facts to offer broader interpretations and characterizations of a matter, and most of the frames are "valenced", in the sense that support a distinct position on a controversial issue (Nelson, 2011). So framing is a mechanism of simplification of the reality, and frames can be promoted either by elites or by media, and as many media rely on the same information sources, identical frames may appear in different media and the impact of frame sponsors raises the question whether reality is framed *by* the media or *through* the media (Van Gorp, 2007). In this case, the controversy confronts two governments (the national and a regional) acting as frame promoters in a same territory (Catalonia) where Spanish and Catalan media operates.

3.2 Theoretical framework

While framing research has become central to media studies in recent decades, with an exponential proliferation of academic articles (Weaver, 2007), little attention has been devoted to the origins of the frames (namely frame-building), and most of the efforts have been oriented towards investigating frames in the news and framing effects (Borah, 2011). Some scholars (Carragee & Roefs, 2004; Hänggli, & Kriesi, 2010; Brüggemann, 2014; Valera-Ordaz, 2016) regret that this lack of attention leaves an uncovered field of study and deviates from earlier sociological researchers, who focused on frame sponsorship and

suggested that framing should be examined not only as a media effect but within the contexts of the distribution of political and social power.

An example of these precursors, Gitlin (1980), claimed, “a news story adopts a certain frame and rejects or downplays material that is discrepant. A story is a choice, a way of seeing an event that also amounts to a way of screening from sight” (pp. 49-50), also judged that “reporters customarily form strong bonds with the sources on whom they depend for stories; they absorb the world views of the powerful” (p. 263). Or Gamson and Modigliani (1989), who suggest that media discourse includes “media packages”, with a central organizing idea or “frame” in its core that gives meaning to an issue (p. 3); also said that “packages frequently have sponsors, interested in promoting their careers” which is “more than merely advocacy, involving such tangible activities as speech making, interview with journalists, advertising, article and pamphlet writing, and the filing of legal briefs to promote a preferred package” (p. 6). And Cook (1998), elaborating that “news not only is a ‘coproduction’ of news media and government, but policy today is likewise the result of collaboration and conflict among newsmen, officials, and other political actors” so he concludes that “American news media are part of government” (p. 3), “powerful officials are best positioned to create news events” (p. 5) and recalls Signal’s conclusive quote “sources make the news” (p. 12). Gans (1980) also describes this relationship between media and political actors (that he compares with dancing tango) as “asymmetrical” since “either sources or journalists can lead, but more often than not, sources do the leading” (p. 116).

Coinciding with this perspective, news stories are conceived as a forum for framing contests where political actors compete by sponsoring their preferred definition of issues (Carragee & Roefs, 2004). In this competition, there is a mutual dependence (or a ‘competitive symbiosis’) between the campaigners, who need the media to reach the public, and the media, which need the input from the campaigners to produce campaign-related news (Wolfsfeld, 1997; quoted by Hänggli, & Kriesi, 2010), although the political process is likely to be the driving force in this relationship so that news media are more prone to react

to political debates than to initiate them. While the quantitative trend to study media framing has promoted a wide variety of methods to analyze their content, measure word frequency and look for frame terms not only in media messages but also in elite discourse or other actors' texts, there is scarce literature devoted to frame-sponsorship (Valera-Ordaz, 2016, 2019).

Following up this course of study, Lance Bennett's media-state relationship theory takes as a basic axiom that news generally reflects the story line of those with the greatest perceived power to affect a particular issue, those holding the greatest institutional capacity to engage government news machinery and those launching the best communication operations and it is reinforced by the "Washington culture of consensus" and the tactical management of news sources (Bennett et al., 2007). The logic underlying this model works on the principle of the gatekeeping function of media, since each news story can contain a limited number of voices, facts and organizing ideas and journalists must select whose voices and what messages get into the news (Bennett, 2011). According to the theory, news contents and the presence or absence of citizen voices can be predicted following the parameters of elite debate: when political elites are in agreement on an issue and there is little debate, news tend to reflect this consensus, pay less critical attention to the topic and the range of views in the news is smaller; and when elites disagree, news coverage fall more or less within the contours of their disagreement, marginalizing views not represented within current elites (Lawrence, 2019).

Indexing theory is grounded on the study of the parallelism between political statements reported by Congressmen around the involvement of the United States in Nicaragua and the opinions expressed in the press (Bennett, 1990), proving a correlation in the number of voices opposing to the American foreign policy in the Capitol and the media. But the theory stems from previous research describing media's mechanism of excluding from the public agenda those who challenge the political consensus, based on the observation of the TV patriot reporting about the Vietnam War (Hallin, 1986). Hallin illustrates a variable objectivity practice of journalists with the image of two concentric

circles: within the inner circle there is the “Sphere of Consensus”, including all the social objects not regarded as controversial by media and society; the middle region between the two circles corresponds to the “Sphere of Legitimate Controversy”, which encompasses electoral contests and legislative debates, whose limits are defined primarily by the two-party system (in Washington) and where journalists are driven by objectivity and balance; and beyond the circles there is the “Sphere of Deviance”, where political actors and views are rejected and excluded from the public agenda as unworthy.

This hypothesis is opposed to an ideal view of media as a watchdog role and theories such as agenda-setting and the CNN effect, that suggests a power of media to lead public debates and condition policymaking. The interplay and dynamics between media and elites makes difficult to identify empirically causal mechanisms to answer the question of who leads whom (Jones & Wolfe, 2010).

Other studies suggest a limited effect of the government to avoid a critical view of media to its positions where there is no elite consensus about a particular issue (Sorokina, 2015). And some scholars have questioned the ability of elites to introduce policy options and shape debates as journalists also seek out foreign sources to provide opinions contrasting with the American officials (Althaus et al., 1996).

Indexing has been viewed as a possible explanation to why the mainstream media in free democracies seem so inclined to reflect rather than challenge the policy directions of their government. The process of indexing is present in many countries partly due to “the addiction of journalists to the practice of objectivity, which requires both ‘balance’ and easy access to credible sources that leads to generally to the authorities and established ‘experts’” (McQuail, 2010: 243). Although the theory was initially proven in the American two-party system, a similar pattern has been studied in multi-party systems such as the Danish, where parliamentary majorities seem to have the capacity to de-legitimize particular viewpoints under certain conditions and the press follows them (Andersen, 2017) and where official sources are able to dominate news

promoting their version of reality, especially in times of war (Kristensen & Ørsten, 2007).

This relationship between journalists and officials is able even to shape the language used by media, as Bennett, Lawrence and Livingston (2006) explain concerning the publication of photos about the Abu Graib tortures in 2004. The United States Administration promoted the terms “abuse” and “mistreatment” instead of “torture” and so did the press. Regarding American politics, they conclude that once a Washington story is settled, other sides are easily excluded by the mainstream press, acting alternatively as a filter, amplifier, echo chamber and adjustment mechanism. Other authors (Althaus et al., 1996) maintain that indexing hypothesis bears resemblances to the journalistic routine of the objectivity norm. Since journalists know they cannot serve as a mirror because they have to report selectively, they consult elites, as representatives of the public, about what issues are important in order to give journalists confidence about the correct proportions. In their study on the case of the US-Libya crisis, they concluded that the American administration did not dominate the discourse about Libya but retained some advantage in obtaining high visibility.

Agreeing with this standpoint, this dependence of news media on political power has been elaborated in terms of “power bias”, which assumes that media attention is biased towards the most powerful actors while frames of the weak actors are less likely to be covered; “salience bias”, taking that media report a frame proportionally to the degree to which they are promoted; and “multiplication hypothesis”, presuming that messages of the President or the minister met with higher response by the media than those from other actors (Hänggli, 2011).

The measurement of the alignment between media and the Spanish and Catalan political elites will be tested through a framing analysis. Framing has been described from several perspectives, both from psychology and sociology. In media studies, framing can be defined as the process of selecting some

aspects of perceived reality and making them salient in the media text, in order to promote a specific definition of the problem, a causal interpretation, a moral evaluation, and/or a recommendation about how to deal with the described topic (Entman, 1993). Media texts include frames, expressed by the presence or absence of key words, fixed expressions, stereotyped images, news sources and sentences reinforcing collections of facts or judgments. The scholar also explains that framing is not only inherent to the text but also to the communicators, the recipients and the culture, and it provides an operational definition for the notion of “dominant meaning”, including the interpretation with the highest probability of being noticed, processed and accepted by most people.

From a psychological perspective, many experiments proved that differences in wording can change people’s judgement about an issue. Possibly the most common example is the experiment by Kahneman and Tversky (1984). They asked a sample of people to choose between two options to tackle a hypothetical medical emergency in USA. Afterwards, they rephrased with different words exactly the same two options and asked again to another sample. As a result, the largely preferred option by the first sample became mainly refused by the second sample. The only difference between the two interviews was how the success and the failure expectations of each option were presented.

There is also a wide variety of definitions of frame, such as, interpretative packages with a central organizing idea for making sense of relevant events, suggesting what is at issue (Gamson & Modigliani, 1989) or conceptual tools which media and individuals rely on to express, interpret and evaluate information (Neuman, Just & Crigler, 1992). Also Van Gorp, as some other authors, upholds that there is a cultural stock of frames shared collectively in a society, which includes more frames than those currently applied. Therefore, he remarks that a frame analysis can be useful to identify which frames are dominant; under the assumption that frames are dynamic and their application is subject to negotiation, as they are contested by journalists and the audience.

Considering a sociological foundation, some authors (Goffman, 1974) elaborate framing from the assumption that individuals cannot understand the world fully and therefore they apply interpretative schemas or “primary frameworks” to classify information and interpret it meaningfully in order to efficiently process new information. And they distinguish between a macro-level construct, where the term framing implies modes of presentation that journalists use to transmit information in a way that resonates with existing underlying schemas among their audience; and in a micro-level, framing refers to how people use information and presentation features regarding issues as they form impressions (Scheufele, 1999).

In a similar way, there is a difference between the processes of frame-building and frame-setting: while the former refers to internal factors of journalism and coming from the interaction between journalists and the elites which determines how media frame topics, the latter involves the interaction between media frames and their audience, and particularly, how frames affect the learning, interpretation and evaluation of facts and events (De Vreese, 2005b). In order to identify a frame, there are three requirements that must be met: 1) it must have identifiable conceptual and linguistic characteristics, 2) it should be commonly observed in journalistic practice and 3) it must be possible to distinguish the frame reliably from other frames (Cappella and Jamieson, 1997).

Some authors have described a stock of general frames supposed to be found in all sort of news, no matter the topic. A very commonly used stock of five generic frames was provided by Semetko and Valkenburg (2000): conflict frame (emphasizing the conflict between individuals, groups or institutions), human interest frame (bringing a human face or an emotional angle to the presentation of an issue), economic consequences frame (reporting an issue in terms of the consequences it will have economically to individuals, groups, institutions, a region or a country), morality frame (putting an issue in the context of religious tenets or moral prescriptions) and responsibility frame (attributing responsibility for the cause or the solution of an issue to either the government or to an

individual or group); following the previous work of Neuman, Just and Crigler (1992), who identified another range of common frames: human impact, powerlessness, economics, moral values and conflict. They have been used in later studies (for instance: De Vreese, Peter & Semetko, 2001; and Schuck, Vliegthart & De Vreese, 2016, within Europe; and Igartua, Cheng & Muñiz, 2005, in the Spanish arena). In the international field, another general frame studied is nationalization frame, which introduces a geographical element to the analysis since it describes a “tendency to look at a foreign issue from a purely national point of view” (Godefroidt, Berbers & d’Haenens, 2016), a practice that has been previously analysed in the European context (Gleissner & De Vreese, 2005).

Other scholars have focused on issue-specific frames (such as Entman, 1991; and Van Gorp, 2005), which are pertinent only to specific topics and allow a deeper level of specificity and details relevant to the subject of study (De Vreese, 2005b). Entman (1991) defined two opposed frames to analyze how American media reported two air incidents in 1980s: “moral bankruptcy and guilt of the perpetrating nation”, and “the complex of operating military high technology”. Van Gorp (2005) deductively defined the opposed frames “victim-frame” and “intruder-frame” after analyzing texts from political and social actors, and used them to examine the coverage by the Belgian press about the phenomenon of the asylum-seekers in 2000s. This pattern of confronting a duality of frames was also used in the experiment by Nelson, Oxley and Clawson (1997), who exposed a sample of individuals to different reports about a Ku Klux Klan rally emphasizing either a “free speech frame” (the right of their members to speak to the public) or a “public order frame” (the disturbances that erupted during the rally) and concluding that different framing significantly affected their tolerance degree towards the KKK.

In order to attract attention to news, one of the most used frames is the conflict frame, which focuses on the conflict between individuals, groups or institutions (Semetko & Valkenburg, 2000). It highlights incompatibilities, disagreements or

oppositional tensions (Putnam & Shoemaker, 2007). Also the journalistic tradition of telling both sides of the story has been identified as the cause for this framing (Neuman, et al., 1992). The ability of conflict framing to mobilize voters has been studied, assuming that when voters perceive that there is nothing to offer during a campaign or that there is consensus across parties they may not be inspired to participate (Schuck, Vliegenthart & de Vreese, 2016). They measured the presence of conflict framing in the campaign coverage of the 27 member states of the European Union and its impact on voters and concluded that exposure to conflict news has a positive effect on turnout.

Another common framing in political news and deeply discussed in media studies is strategic frame, which was defined initially as a variation of conflict frame. Cappella and Jamieson (1997) refer to it as the media tendency to reduce any action, however noble it is, to some strategic intent. They consider that strategic frame is dominant, and that it includes the features: 1) winning and losing are the central concern; 2) there is a use of the language of wars, games and competitions; 3) there is a story with performers, critics, and audience (voters); 4) the performance, style and perception of the candidate gains centrality; and 5) polls have heavy weighting.

Patterson (1993) gathered evidence on the rise of a game schema (the 'horse race') over policy schema in news. He concludes that journalists had been silent skeptics until they became vocal cynics, with a more aggressive style of reporting. According to him, this tendency of the press to portray the candidates as strategists more than as leaders of electoral coalitions makes more difficult for them to get their message across the voters. In game schemas, a change in candidate's position is a calculated attempt to manipulate the electorate.

Other scholars such as Norris (2000) maintain that this belief cannot be proven and, contrarily, can be refuted by an alternative hypothesis, defined as "virtuous circle." Norris defines accounts claiming that common practices in political communications and news media hinder civic engagement as 'media malaise'

based on surveys in Europe and the United States, however, she concludes that contrarily to the media malaise hypothesis, use of news media is positively associated with a wide range of indicators of political knowledge, trust and mobilization. People more attentive to media and more informed are more knowledgeable, participatory and trusting in government.

Finally, De Vreese (2005a) suggests that political cynicism can either increase or decrease due to media exposure. The key factor comes down to the amount of strategic news reporting. He conducted content analysis and a panel survey in Denmark and the Netherlands about a European summit in Copenhagen in 2002, and the results showed that European affairs were much more visible in the Danish media, while the level of strategic framing was higher in the Dutch outlets. In the latter case, exposure contributed to increase political cynicism while in the former there was a decrease.

Another aspect considered in framing is the tone, which is possibly the most basic variable in framing analysis and research. It refers to positive or negative bias of specific information in relation to its subject. According to Semetko, De Vreese and Peter (2000), the tone evaluates the political actors in every piece of news, and this enables evaluation of the general tone which a particular media outlet adopts to inform on a specific actor. Pew Research Center's content analyses provide an example of measuring the tone in news. They explain tone studies as the examination of every assertion including some assessment of a candidate's chances at winning or their potential effectiveness in office (Pew Research Center, 2009).

3.3 Research topic

This connection between political discourse and media messages will be verified by checking frames applied to Catalan political reality in order to find out remarkable differences between outlets. To this purpose a content analysis will be conducted focusing on information from twelve of the main media outlets

(radio, television and newspapers) consumed in Catalonia in the period from 2012 to 2015. It focuses on how media informed about the Catalan process and the relationship between the Spanish and the Catalan institutions since the first big pro-independence demonstration took place on September 11th 2012 on the streets of Barcelona (Guinjoan, Rodon & Sanjaume, 2013), and since official surveys showed a dramatic increase in the people claiming an independent state for Catalonia the same year, reaching up to 40% of the population (Centre d'Estudis d'Opinió, 2014); and until the crucial election in the Catalan parliament on September 27th 2015, whose main parties (pro-independence center-right CDC and pro-independence center-left ERC) formed an electoral coalition promising to proclaim independence in case of victory, which became the single topic of the campaign and characterized the voting as a plebiscite about the issue.

The analysis covers a selection of 80 momentous dates of the so-called Catalan process; 15 dates have been selected for every year of the period in accordance to their salience, including turning points and key events in the course of action¹⁰. This selection of dates comes from the observation of the front pages of the two leading newspapers in Barcelona and Madrid, La Vanguardia and El País.

The study encompasses media published in Barcelona and Madrid, the power centers of the Catalan and the Spanish political elites respectively. Furthermore, the results of the analysis will be categorized based on the assumption that there are two media systems coexisting in Catalonia: those from the Catalan system, formed by outlets locating in Catalonia their main newsroom, from where they produce most of the informative content and have the Catalan society as a pre-eminent or practically exclusive audience; and those from the Spanish (or state) system, which includes those media with their central editorial in Madrid, most of their informative content is produced outside of Catalonia and their audience is the whole of the Spanish population.

¹⁰ See Appendix 2 for a detailed list of the selected dates and the corresponding events.

Media system is understood as all the mass media organized or operating within a given social and political system (Hardy, 2012). The concept is referred to as “national” media system in its origins and its use has been widespread since 1945, in a context of clear vertical links between national governments and the regulation of media communications, with national media mostly owned by large national firms and predominantly oriented towards markets within a nation-state. Although Denis McQuail (2010: 177 and 220) also defines media system as the actual set of mass media in a given national society, despite the fact that there may be no formal connection between the elements, the scholar highlights as well that in most countries media do not constitute a single system with a single philosophy but are composed of many separate, overlapped and often inconsistent elements.

Studies of media systems have also remarked that there is a connection between them and the political system. The classical Theories of the Press (Siebert, Peterson & Schramm, 1956) states that “the press always takes on the form and coloration of the social and political structures within which it operates, and especially it reflects the system of social control where the relations of individuals and institutions are adjusted”, although globalization has reduced particularities (Benson & Hallin, 2007). In the case of Spain, there are autonomous regions that constitute subnational areas for media circulation. Some of these regions have even identified themselves as nations, with their own culture and language. The Spanish constitution somehow recognizes this reality including the existence of “nationalities” within its state, a term which has commonly been identified Catalonia, the Basque Country and Galicia.

The Spanish system belongs to the polarized pluralist model according to Hallin and Mancini’s classification of media systems in Western democracies (2004), which is typical in the Mediterranean countries in Europe and it is characterized by the interventionist role of the state in the media system and a “political parallelism”, that can involve organizational relationships between media and political parties, but also partisan affinities in commercial outlets’ content or in

the political preferences of their audience. The concept of political parallelism assumes that political advocacy is part of the mission of journalism, that media share general political values from political camps rather than parties, and it could be detected through indicators such as the extent to which media coverage is shaped by journalists' political affiliations, the degree to which audiences consume media according to their political preferences, the separation between news and commentary, political bias in news reporting, and the public broadcasters' dependence on the government. Some studies measuring political parallelism of media have concluded that Spain is one of the countries with the highest degree of such parallelism (ranked third in Van Kempen, 2007; and the first one, in Brüggemann et al., 2014).

Another characteristic of this model is that the state has some ownership control of media, gives state subsidies and it is involved in financing newspaper sales. This strong role of the state provides leverage to Spanish national TV and radio outlets versus the regional outlets, due to regulation favoring their implementation (Gifreu, 2013; Gifreu & Marí, 2014; and Zallo, 2013). The media system in these regions includes an in/out dimension, with a strong duality between Spanish outlets and the autochthonous ones, competing to set the political agenda and become the leading news reference for the population. From this angle, it is considered that Catalonia has its own media system, provided with a public broadcast corporation, autochthonous private media groups, an advertising market and a regulatory authority, which coexists with the Spanish media system.

In order to evaluate the indexing degree of the Catalan and Spanish media systems in relation to their closest governments' position, three hypotheses will be tested. The first one examines if there is a correspondence between media and political systems about the tone following other analysis that account for a critical tone of the Spanish media towards Catalan actors (Ballesteros, 2015; López et al., 2017):

1. Each media system (the Catalan and the Spanish) is prone to adopt a positive tone referring to the political actors belonging to their closest institutions (Catalan government and Spanish government) in news about the Catalan process whereas they tend to take a negative tone assessing those actors from the other institutions.

The second hypothesis will take into account the standpoints of both governments towards the issue: the efforts of the Catalan government to mobilize the Catalan population in favor of a referendum and independence since 2012, when the pro-independence movement started to organize sizeable demonstrations (Pallarès & Rodon, 2014), and the attempts of the Spanish government to discredit the pro-independence claim (Almiron, 2019). And these positions will be tested in relation to the use of specific frames: the conflict framing, supposed to mobilize the audience (Schuck et al., 2016), and the strategic framing, presumed to disengage citizenship (Patterson, 1993; De Vreese, 2005a):

2. The Spanish media system is more inclined than the Catalan one to adopt strategic framing whereas the Catalan media system will tend to use conflict framing more often than the Spanish when it comes to reporting about Catalan politics.

In the third hypothesis, two issue-specific frames will be designed based on the main arguments put forward by both governments in relation to the Catalan process and the relationship between the two institutions (following the example of Van Gorp [2005]):

3. Each media system favors the frame promoted by its closest institutions, which becomes dominant (more salient and more repeated) in its news about the Catalan process.

A premise underlying the three hypotheses and the whole research is the assumption that there will be internal similarities and external differences

among the analyzed outlets depending on the media system they belong to. This contrast has already been concluded by precedent framing analysis of the Catalan process carried out in recent years and concluding that the media have not been neutral when reporting the issue, that their location makes a difference rather than ideology when it comes to explain it, that Catalan press tend to legitimize the Catalan process and that the Spanish media adopts the opposite tone, tending to discredit it with a critical tone and that they are aligned with the Spanish elite's position and adopt a belligerent role (Alonso, 2014; Ballesteros, 2015; Micó & Carbonell, 2017; Gili, 2017; López et al., 2017; and Almiron, 2019). The use of metaphors to refer to the independence debate has also been analyzed concluding that those related to conflict/war, travel/movement and game/sports have been the most used (Moragas-Fernández & Capdevila, 2017).

3.4 Methodology

As explained, the aforementioned hypotheses will be evaluated by means of a content analysis. This technique has been the most practiced research method in media studies for almost a century, as it enables replicable and valid inferences from texts to be made regarding the contexts of their use, expecting it to be reliable (Krippendorff, 2018) Its sequence consists of selecting a population or a sample of content, establishing a category frame of external referents relevant to the purpose of enquiry, choosing a unit of analysis from the content, seeking to match the content to the category frame, per chosen unit of content, and expressing the results as an overall distribution of the complete universe or sample in terms of a frequency of occurrence (McQuail, 2010: 362).

Frames can be identified and measured in headlines, subheadings, photos, photo captions, leads, source selection, quotes selection, pull quotes, logos, statistics and charts, and concluding statements and paragraphs (Tankard, 2001). For this study, the first reading level in press (including all kind of titles

and pictures), and narration, sound and video bites of sources and images in audio-visual content has been observed.

The media analyzed from the Catalan system include three newspapers: the bilingual La Vanguardia and El Periódico (published in Spanish and Catalan) and El Punt Avui (exclusively in Catalan); two radio stations: the private RAC1 and the public Catalunya Ràdio; and the public TV channel TV3. From the Spanish system, one newspaper has been analyzed: El País; two radio stations: the private SER and COPE, and three TV channels: the private Antena 3 and Telecinco, and the public TVE. Therefore, twelve outlets have been analyzed (four newspapers, four radio stations and four TV channels). The selection was made based on audience, as they have been the leading media in Catalonia during the studied period, according to the Estudio General de Medios (EGM).

680 units have been codified (352 from the Catalan media system and 328 from the Spanish media system). Every unit corresponds to the information (not opinion) related to the issue on the front-page and the inner pages of the analyzed newspaper on the day after the selected dates; in the news program of the prime-time radio broadcasting (8-9h) of the analyzed radio station on the day after the selected dates; and in the evening news program of the analyzed TV channels on the selected dates (with the exception of specific dates on which the events took place at night, such as an electoral date, where the analyzed news program is from the day after the event).¹¹

¹¹ The audio-visual material was transferred by the Consell de l'Audiovisual de Catalunya (CAC), the regulatory authority which funded the content analysis with a grant. A team of three trained coders processed the units. A preliminary report with the results can be found online in the document "Enfocant el procés sobiranista" at CAC's web site: <https://www.cac.cat/ajuts-a-la-recerca/x-convocatoria-la-concessio-dajuts-projectes-recerca-comunicacio-audiovisual-0>

The variables of codification are organized in six blocks¹². The first includes elements typical of an agenda-setting analysis such as the position and the salience of the facts analyzed (Pallarès, Gifreu & Capdevila, 2007). The second block focuses on the analysis of the headline (Burguet, 1997; and his contribution to Digilab's content analysis on Catalan politics in 2012), involving the subject, object and their tone.

The following blocks test the presence of specific frames based on yes/no questions from the analysis of the first reading level (headlines, subheads, pictures and pull quotes) of news in the newspapers' units, or the viewing or audition of the news broadcast in TV and radio units. The third block checks the presence of the conflict frame according to De Vreese and Boomgaarden parameters (2006) and Schuck, Vliegenthart and De Vreese (2016). The fourth block identifies the strategic frame according to the parameters of Schuck, et al. (2013), which are based on Cappella and Jamieson (1997).

And the final two blocks check the presence of two issue-specific frames designed from the observation of four arguments commonly cast by the leaders of the Catalan and the Spanish governments about independence and the relationship between Catalonia and Spain. Based on this observation, two issue-specific frames have been deduced for this content analysis, following the example of Van Gorp (2005). These frames are labeled "right to decide" and "rule of law" and they have been identified in the units of analysis when any of the indicators deduced from the political speeches are found in the text (Table 8).¹³

¹² The codebook with the specific variables of the content analysis can be found in Appendix 3.

¹³ Indicators for the "right to decide" frame are based, among other observations, on the investiture speech of the Catalan president Artur Mas in the Catalan Parliament (20th of September 2012). Some extracts: "*After two years (in office), not only (the Spanish government) has not rebuilt bridges but its hostilities and attacks on our self-government are blunter and more powerful*" (1). "*I believed and I still believe that we could not ignore that great clamour (from the demonstration of September 11th) and that exceptional situations deserve exceptional decisions (to call an early election)*" (2). "*The only limit we shall impose on ourselves is that the*

These indicators can be reflected in media either indirectly by the journalist or directly by the voices included in the information. A frame is detected once any of its indicators is reported in the unit of analysis. Moreover, a dominant frame has been selected in all the stories based on the salience, the variety and the repetition of the frame indicators detected.

final word is that of the people and that their will (...) must be accepted and respected” (3). “Catalonia has all the attributes to be considered a normal country among the normal countries in the world. It has (...) a rather strong, modern economy that is open to the world” (4).

Indicators for the “rule of law” frame are based, among other observations, on the investiture speech of the president of the Spanish government Mariano Rajoy (30th of August 2015). Some extracts: *“Catalonia is much more than the pro-independence politicians and they would not be able to carry out their aims without provoking a deep breakup in the Catalan society” (1) and (2). “The first requirement of any fair solution is the respect of legality and of the rights of all the Spanish people” (3). “I recall that we have averted the default of the Catalan government public debt, we have ensured payment to its suppliers and even to its civil servants” (4).*

Table 8: Frame indicators extracted from governments' discourses

	Catalan government position ('Right to decide')	Spanish government position ('Rule of law')
Cause of the conflict	Catalans are victims of mistreatment or discrimination by the Spanish State against their culture, economy or taxes	Catalans are victims of manipulation or deception by pro-independence parties ruling the Catalan institutions
View about the Catalan society	There is a massive demand by the majority of the society for a vote on independence	There is a risk of social confrontation, division or a breakup due to the debate about independence
The political resolution	To vote in a referendum or in a non-binding popular consultation	To respect the rule of law and to give up initiatives breaking the Constitution
The independence paradigm	An independent Catalonia (or with higher autonomy) would be better off, especially in economic terms	Independence is an unviable project; Catalonia would be isolated in the world. Its treasury depends on Spain

Source: Elaborated by the author.

3.5 Results¹⁴

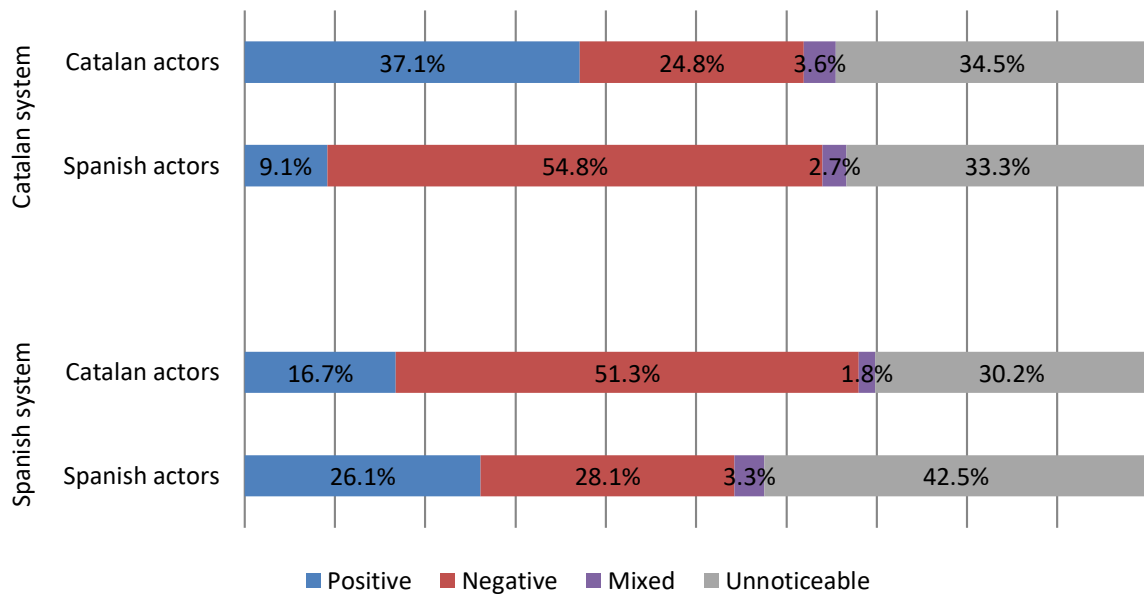
The first piece of evidence to confirm the different perspectives of the two systems is the notability of the topic: all the media in the Catalan system report the issue on all the selected dates, and most of these days it is the lead story (83%) or it appears in the front page or among the top stories of the news programs (12.5%), while for the remaining 4.5% it is a minor story. On the other hand, in the Spanish media system the topic is only the lead story in half of the units (49.7%) and alternatively it is a top story in a third of them (33%), while in 11.5% of cases it is a minor story and in a 5.7% it is omitted.

Consistent with this result, media from the Catalan system devotes an average of 10 minutes/pages to the topic per analyzed day, compared to a mean of 6.5 minutes/pages in outlets from the Spanish system. In the Catalan system, Catalunya Radio, RAC1 and TV3 paid more attention to the issue (an average of 17, 14 and 10 minutes per date respectively), followed by El Punt Avui (8 pages per date). One outlet of the Spanish system devoted nearly as much time to the topic as the rest: COPE talked about it 16 minutes per date on average. TVE, Antena 3, El Periódico and SER dedicated a mean of 5 minutes/pages per date; La Vanguardia and Telecinco, 4 pages/minutes; and El País 3 pages on average.

The tone has been checked in the media main headline for every studied date, associated to the subjects (and direct objects) appearing in it. Findings make evident a tendency among the media to adopt a negative tone to refer to political actors not in their own system (Figure 5).

¹⁴ A report with the detailed results of the content analysis can be found in Appendix 4.

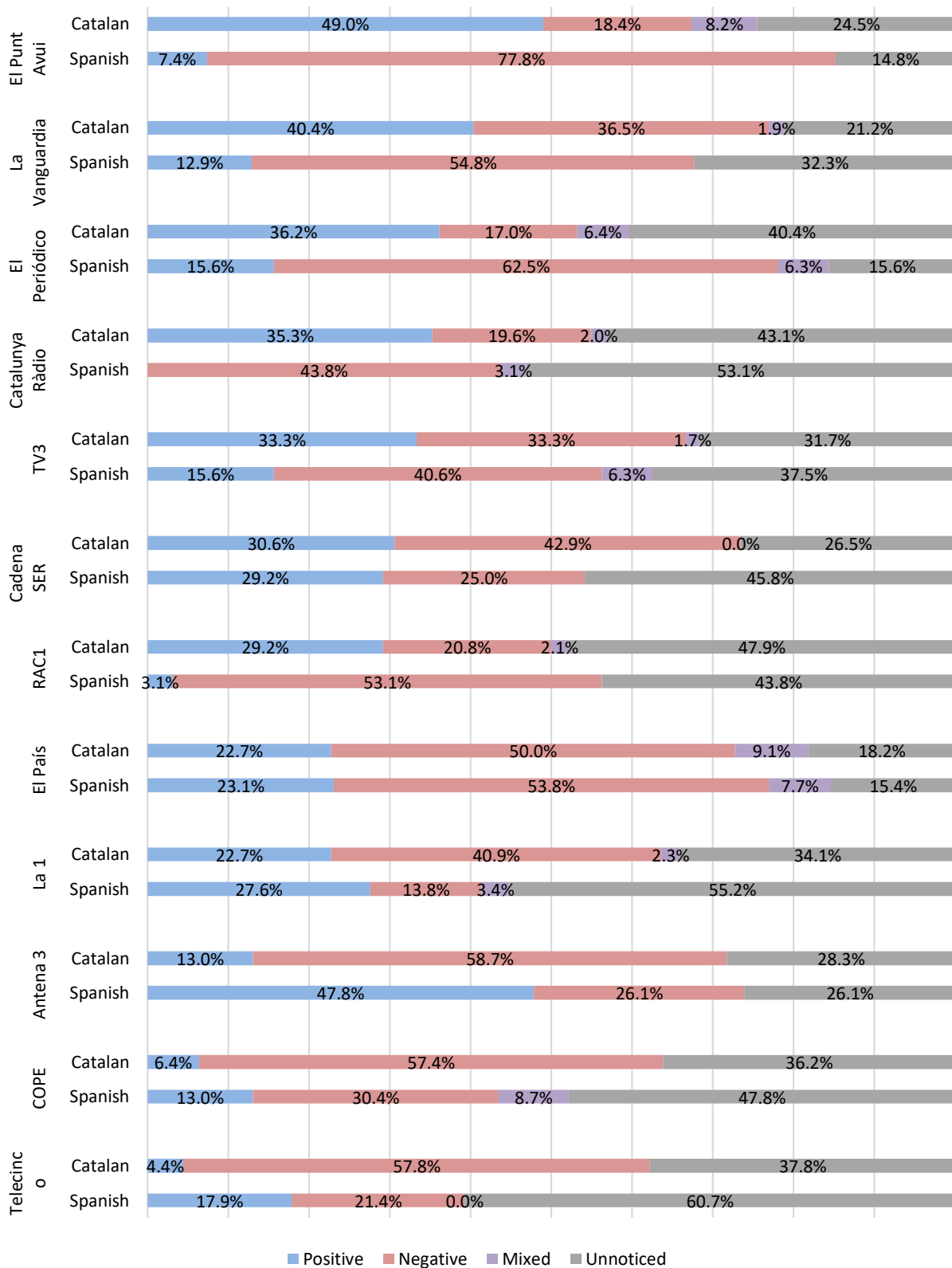
Figure 5: Tone referring to actors in the main headline (%)



Source: Elaborated by the author.

55% of codified units from the Catalan media system negatively evaluate Spanish political actors, while the use of this tone more than halves (25%) when they refer to Catalan actors. Likewise, the positive tone is adopted in four times as many instances when speaking about Catalan actors (37%) than when speaking about Spanish actors (9%). The tone is unnoticeable in a third of the cases. Concerning the Spanish system, most of the units show a negative tone associated with Catalan actors (51%), while it is significantly lower when it comes to Spanish actors (28%). However, the Spanish media adopt a negative tone more times than a positive tone (26%) to refer to Spanish actors, although in a high proportion of units it is unnoticeable (42.5%). There is a low proportion of positive connotations when referring to Catalan actors in the Spanish media system (17%).

Figure 6: Tone referring to political actors in media headlines by outlet (%)



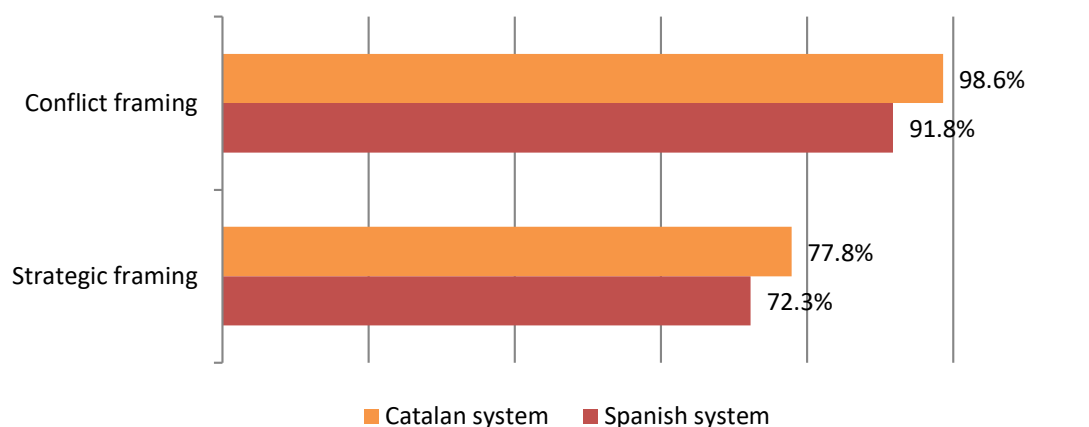
Source: Elaborated by the author.

Analyzing the tone by outlet (Figure 6), the scheme of system analysis is confirmed: in La Vanguardia, El Periódico, El Punt Avui, RAC1 and Catalunya Ràdio the tone of the headlines is mostly positive when it refers to Catalan actors and mostly negative when talking about Spanish actors. On the other hand, in Antena 3, TVE and SER the references in the headlines to Catalan actors are mostly negative, and the mentions of Spanish ones in the analyzed news are rather positive. In El País, COPE and Telecinco the tone is mostly negative both in the headlines referring to Catalan actors as well as to Spanish ones. And TV3 adopts mostly negative tone when referring to Spanish actors and is balanced when it refers to Catalan ones.

Some examples of negative tone are headlines such as: “Mas leaves the destiny of Catalonia in the hands of the street demonstrators” (El País, September 28th, 2014), “Artur Mas has failed in his attempt to lead the project to create a Catalan state apart from the rest of Spain” (SER, November 26th, 2012) or “PSOE’s proposal to reform the Constitution will come to nothing” (RAC1, October 26th, 2013). On the other hand, some examples of positive tone are: “The (Catalan) president commits to work in order to provide ‘state structures’” (El Punt Avui, September 13th, 2012) or “Rajoy promises to save autonomous communities lacking bank liquidity” (El País, January 18th, 2012). Mixed tone combines both the positive and the negative, such as “Artur Mas wins (the election) with fifty MPs, but remains far from the exceptional majority he demanded” (Catalunya Radio, November 26th, 2012). Finally, when the tone is unnoticeable, no connotations can be found in the headline: “The Catalan parliament passed the claim for a fiscal agreement with the central government in an extraordinary session” (TVE, July 26th, 2012).

Considering the analysis of frames, the conflict frame is present in almost all the news analyzed, which exhibit two or more fronts (99% of cases in the system Catalan, 92% in Spain), which is the most common indicator of the frame (Figure 7). Of the entire sample analyzed, 95% of the information presented this framework.

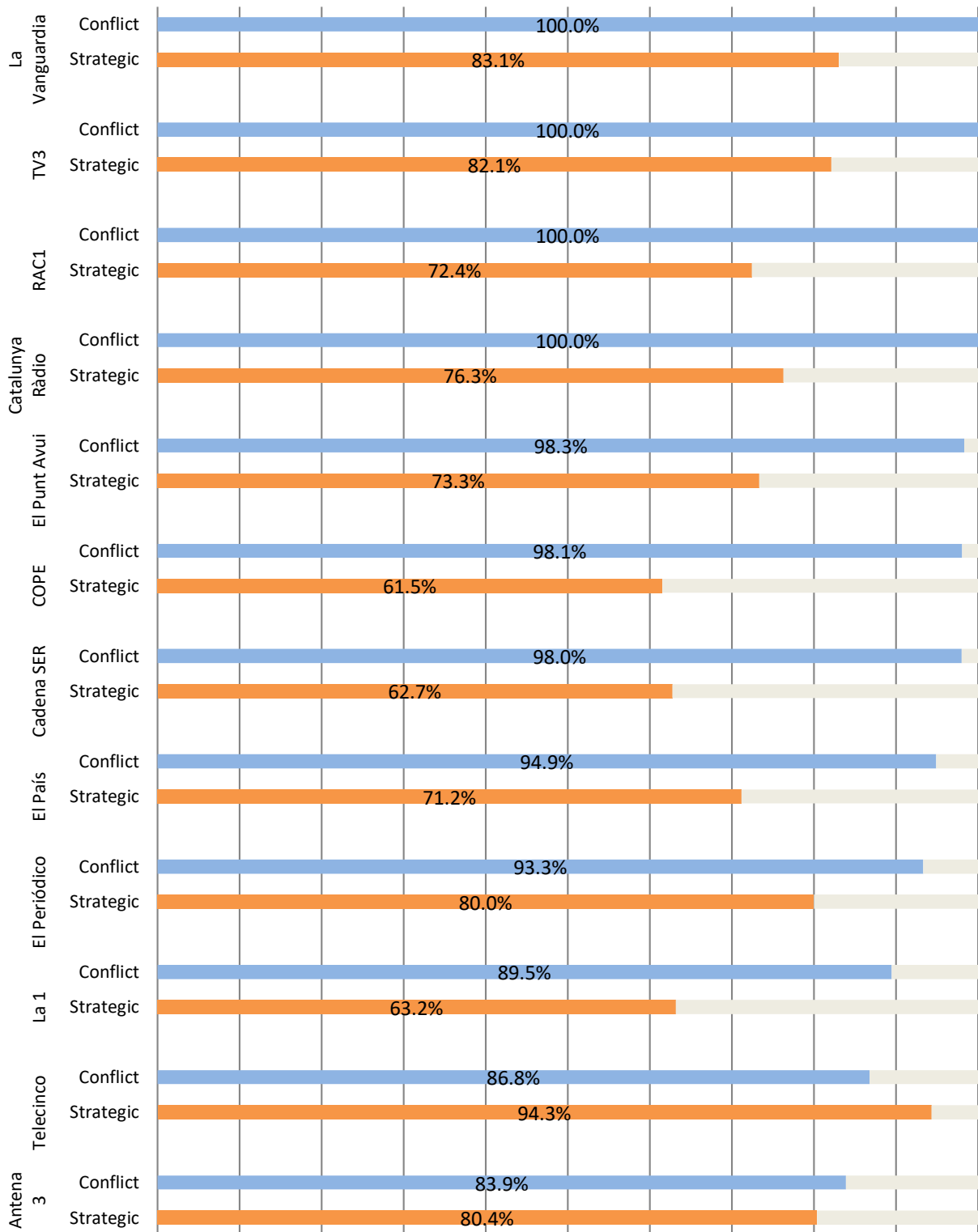
Figure 7: Presence of conflict and strategic framing by system (%)



Source: Elaborated by the author.

Examples of conflict framing are constantly found in the analyzed news, with headlines presenting the information with two fronts that have different views or that openly contradict each other: "Rajoy gives the definitive 'no' to the fiscal pact and Mas announces that he will make decisions" (El Periódico, September 21st, 2012), as well as with personal reprovals with headlines such as: "The leader of the PSOE regrets the 'frontism' of Mas and the immobility of Rajoy" (La Vanguardia, November 11th, 2014). Analyzed by outlets, the frame of conflict is present in 100% of the news selected from La Vanguardia, TV3, RAC1 and Catalunya Ràdio; and 98% of El Punt Avui, COPE and SER. Whereas this framing is present to lesser extent in the Spanish television channels: Antena 3, Telecinco and TVE, which is between 80% and 90% (Figure 8).

Figure 8: Presence of conflict framing and strategic framing by outlet (%)



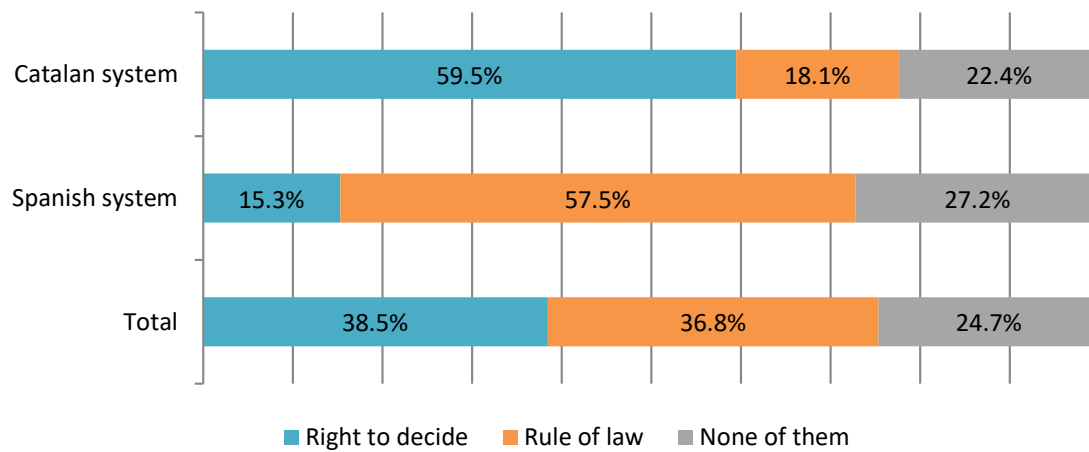
Source: Elaborated by the author.

With regard to the use of the strategic framing, only 5.5 percentage points separate the Catalan media system and the Spanish system. In both cases, this presence oscillates between 70% and 80%, with the global average in 75%. Examples of this strategic framework are found in headlines such as the SER's: "Artur Mas believes that the warning from banks will earn him more votes" (September 19th, 2015), which refers to personal interests behind a certain action; or in the speech "The president of the Generalitat, Artur Mas, has just signed the decree calling the September 27th election in one of the solemn halls of the Palau de la Generalitat and surrounded by part of his Government" (Telecinco, August 4th, 2015), which focuses on the staging rather than the fact itself. There are also warlike metaphors illustrating news headlines such as "independence showdown" (common in TVE), "independence challenge" (Antena 3) or "sovereign challenge" (El Periódico).

When analyzed by outlet, though, the variations are greater. Telecinco is where this framing is most present, in over 90% of the news. The channel is followed by Barcelona's two leading newspapers (La Vanguardia and El Periódico) and TV3 and Antena 3 TV channels with strategic framing present in 80% of the cases. A mid-range of between 70% and 80% includes Catalunya Ràdio, El Punt Avui, RAC1 and El País; and between 60% and 70%, TVE, SER and COPE.

Regarding the two issue-specific frames designed for this content analysis, most units in all the media contain some indicator of both frames, as voices tend to range from both sides of the story. However, slight differences emerge: the "right to decide" frame is clearly more present in the Catalan system (85.8%) than in the Spanish system (68.3%), while the "rule of law" frame is more visible in the Spanish system (75.9%) than in the Catalan system (67.6%). However, these differences are more pronounced when the dominant frame is highlighted: "right to decide" is widely superior in the Catalan system, since it is the dominant frame in 59.5% of its units, while the "rule of law" only prevails in 18% of the news and in the remaining 22% neither is dominant (Figure 9).

Figure 9: Dominant issue-specific frame by media system (%)



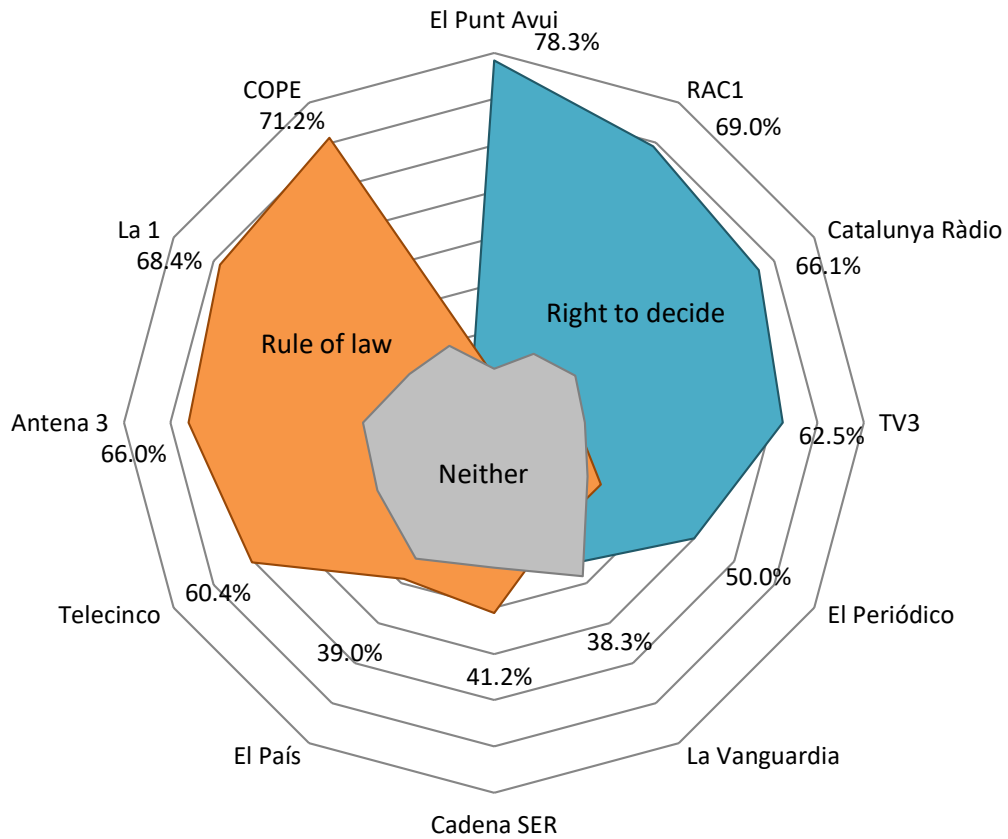
Source: Elaborated by the author.

Conversely, in the Spanish system these proportions are inverted: “rule of law” is the dominant frame in 57.5% of the units, while “right to decide” predominate only in 15%, and in 27% none of them stands out. When considering the analyzed media as a whole, both of the specific frames are balanced in terms of prevalence (38.5% “right to decide” versus 37% “rule of law”).

This contrast between systems is also salient among outlets: in Catalan media (RAC1, Catalunya Ràdio, El Punt Avui, TV3, El Periódico and La Vanguardia, in that order) the “right to decide” frame was more repeatedly dominant than that of the “rule of law” (Figure 10). On the other hand, in outlets belonging to the Spanish media system (Antena 3, COPE, Telecinco, TVE, El País and SER, also in that order) the “rule of law” frame dominates. La Vanguardia, El País and SER are the only outlets in which any of the issue-specific frames are dominant in more than 50% of the units. The gap between the two is minimal compared to the rest of the media, ranging between 8 and 14 percentage points. They also have another commonality: they are the only outlets in which the units with no dominant frame exceed 30%. Particularly, La Vanguardia is the only outlet where “neither” is the first option although, as in the rest of the media from the Catalan system, “right to decide” is dominant in more units than “rule of law.”

The radial graph provides an overview of the relationship between the results of the content analysis and the outlet to which a media system belongs.

Figure 10: Radial of the dominant issue-specific frame by outlet (%)

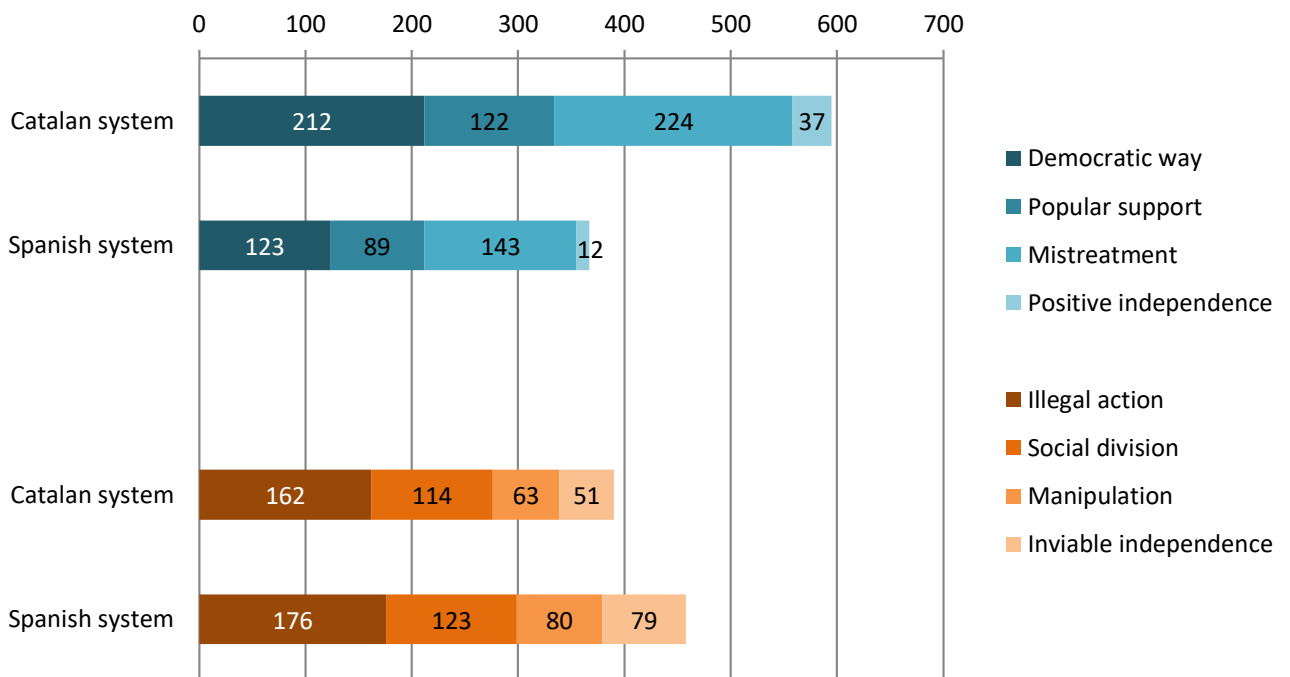


Source: Elaborated by the author.

By zooming in on the indicators of the two frames considered in the analysis, it can be observed that 63% more references to the components of the “right to decide” frame have been coded in the sample from Catalan media than the sample from Spanish outlets (597 versus 367); meanwhile this difference is lower for the indicators of the “rule of law” frame in the Catalan media sample, 15% fewer than in the Spanish sample (389 versus 458).

The most commonly identified framing indicator in the Catalan system is that Catalans (or their institutions) are victims of mistreatment or discrimination by the Spanish State followed by voting in a referendum or a non-binding consultation or the Catalans’ right to decide their future as a political resolution to the problem (Figure 11); while in the Spanish system, the most common indicator is the call for respect of the rule of law and calling for initiatives to be given up that break the Constitution as a way to solve the conflict.

Figure 11: Indicators of issue-specific frames by media system (abs.)



Source: Elaborated by the author.

The four indicators of the “right to decide” frame are repeated far more in Catalan media than in the Spanish system (where there are 39% fewer instances). The indicator about mistreatment against Catalans is the strongest argument of the frame in both systems. It is detected, for instance, in headlines such as “Rajoy (the Spanish president) rushes Catalonia”, in reference to the investments planned in the national budget (El Punt Avui, April 4, 2012). As for the indicator showing voting as a solution, it is coded for example in a statement by the Catalan vice-president, Oriol Junqueras, in the news program of TVE

(December 19, 2012) saying that "What we intend to do is put the future of Catalonia in the hands of the citizens of Catalonia, and to do this, we commit to consulting them democratically."

Less common is the indicator transmitting that there is popular clamor, democratic legitimization, to justify a political agenda. The following sentence is such an example, "The Catalan president urges Spain and Rajoy to listen to the clamor of Catalonia" (Telecinco, September 13th, 2012). And even less common still is the indicator forecasting a positive scenario in the case of Catalonia becoming independent or gaining more political or economic autonomy. It is conveyed in statements by Oriol Junqueras, such as, "The best tools to face the crisis that Catalonia can aspire to are the tools of a State" (La Vanguardia, December 20th, 2012).

The four indicators of the "rule of law" frame are almost as present in the Catalan system as they are in the Spanish system (15% fewer in the Catalan outlets). The indicator presenting legal and Constitutional restrictions on political actions is the most repeated of this frame. A clear example of it is the headline "The Constitutional Court deems illegal that Catalonia declares itself sovereign" (El País, March 26th, 2014). The indicator concerning a risk of social division or breakup due to the debate about independence is also found in both systems but with less intensity than the previous one. It is detected in statements such as those by the Catalan leader of Rajoy's Popular Party, Alicia Sánchez Camacho, saying that "The (Catalan) president has lost his sense of reality, Mas' decision will lead to division and confrontation within the Catalan society" (La Vanguardia, September 26th, 2012).

The other two indicators of this frame are repeated to a lesser extent. The indicator denouncing manipulation or deception of the Catalan society by the pro-independence leaders is found, for instance, in the headline: "Rabell (spokesperson of a Catalan left party in favor of a referendum but against independence) praises the Free Way, despite Mas' 'manipulation'" (El Periódico, September 12th, 2015). And the indicator presenting the future of an

independent Catalonia as unviable due to isolation or to financial problems, or pointing to a current economic dependence on Spain is found in headlines such as: “The European Commissioner Joaquín Almunia warns that if Catalonia becomes independent it would be out of the EU” (Telecinco, September 17th, 2013).

3.6 Conclusions

Given the results of the content analysis, the first hypothesis can be mostly confirmed, as the formulation that each system is prone to take a positive tone to refer to the actors of their closest institutions and a negative tone for the further ones has been verified in three of its four extremes: outlets belonging to the Catalan media system tend to rate more positively than negatively the Catalan political actors (37% versus 25%) and the opposite for the Spanish actors (9% versus 55%); whereas media from the Spanish system tend to evaluate more negatively than positively Catalan actors (51% versus 17%) despite the fact that the positive tone is not more frequent than the negative when evaluating the Spanish actors (26% versus 28%), but they are mostly reported in an unnoticeable tone. A possible explanation that indexing model could provide to this higher unnoticeable rating of the Spanish actors by Spanish media could be found in the degree of consensus among the Spanish political parties in their position towards the Catalan conflict (higher than among the Catalan political parties), that leaves the matter out of political confrontation, following Hallin’s schemata (1986).

The second hypothesis is refuted by the results, since both conflict framing and strategic framing are widely present in the analyzed information about Catalan politics in all media and the variable system does not explain variances among outlets. So it cannot be proved that there is neither a tendency of the Catalan system to adopt the conflict framing more frequently than the Spanish system nor the Spanish system tends to use the strategic framing more often than the Catalan. This high presence of the conflict framing could be explained by the

nature of the reported topic: a conflict between two institutions, while the presence of the strategic framing could have a cultural base and be due to similar journalist styles in Madrid and Barcelona, since both systems belong to the pluralist model (Hallin & Mancini, 2004).

On the other hand, the results of the analysis of the issue-specific frames “right to decide” and “rule of law”, based on the arguments spread by both governments, have led to verify the third hypothesis, since the frame promoted by the Catalan institutions is dominant in all the outlets from the Catalan media system the triple of times than the frame promoted by the Spanish government (59.5% versus 18%) as well as all media belonging to the Spanish system has “rule of law” as a dominant frame almost four times more frequently than “right to decide.” So it is proven that each media system tends to favor the frame issued by its closer institutions.

In conclusion, the outcome of the content analysis gives clear proof of media parallelism informing about the Catalan process depending on their belonging to a particular media system in the studied period. This assumption is supported by two variables of framing: the issue-specific frames designed from the governments’ messages and the tone of the headlines. Generally, it is not a matter of excluding alternative arguments or voices but of repeating more intensively or making more salient those from one particular frame what makes it more prominent in a media system than in the other.

These findings applied to both systems are reinforced by the individual results per outlet. Since they individually confirm the trends analyzed in their own system, it makes the conceptualization of the two media systems and their internal cohesion and proximity to the range of views of their respective political elites, from Barcelona and Madrid, more consistent.

Although Spain belongs to a press model of political parallelism (Hallin & Mancini, 2004), the analysis exposes that this contrast of views goes beyond ideological positions in the traditional left-right axis as it accounts for

geographical location, with territorial tensions in the background. Results back up the assumptions of the indexing model, linking the range of voices in media to those transmitted by officials. Considering the results, it can be concluded that the media tend to favor the view of their closest administration involved in a domestic conflict.

From a methodological perspective, the study provides an example of spatial dimension to study this phenomenon instead of the temporal dimension that has been traditionally adopted to analyze it. It could be a useful example for future research about indexing applied to internal matters.

4. POLARIZATION AND HOMOGENIZATION OF MEDIA AUDIENCES IN CATALONIA

4.1 Introduction

Polarization is a phenomenon of growing interest in political science which is also receiving increasing attention in the field of communication. The tendency of parties to heighten their differences with their rivals over the years, the implications in the social domain and the role of the media as connector and transmitter of this trend constitute three interrelated elements involved in the process. The concept of polarization can include two different ideas: one related to the distance between the policy positions of political parties (namely elite polarization), and another referring to the correlation of party preferences with individual voters' positions (popular or mass polarization), making their attitudes on several substantial issues highly predictable (Stanig, 2011). Assuming the latter, this article will analyze the impact of polarization in mainstream media audiences.

Broad attention has been devoted to polarization in the context of US politics; there is academic consensus that it exists among political elites, as long as there is a disagreement over its dissemination to the society (Fiorina, Abrams & Pope, 2005; Abramowitz & Saunders, 2008; Prior, 2013; Pew Research Center, 2014). Elite-level polarization has been attributed to patterns of electoral and social change leading to an increase in the ideological and political differences between Democrat and Republican voters and party strategies within Congress; and from a traditional perspective it was associated with only one major policy agenda at a given time, such as civil rights or cultural and moral concerns (Layman, Carsey & Horowitz, 2006). The phenomenon has been characterized by the fact that almost all political conflict in Congress is expressed in liberal-conservative terms, the dispersion of positions of its members has increased, with liberal and conservative extreme positions more represented, and the

ideological position of political parties more homogeneous in internal terms, while the average position of Democrats and Republicans is more widely separated and there is less overlap (McCarthy, Poole & Rosenthal, 2006). As a consequence of this, the moderates have vanished from chambers.

Regarding mass-level polarization, the media are in the spotlight because they are framers of polarization, since conflict and division are of high news value while agreement and consensus are not (Fiorina et al., 2005). So journalists enthusiastically embrace the concept of “culture war”¹⁵; as they report on contemporary voters deeply divided on moral issues and constituting evenly matched blocs of committed partisans. They conclude that culture war is a myth based on misinterpretations of reality, leading to political parties nowadays being more polarized at elite-level but no evidence of popular polarization.

However, other scholars refute this position. After analyzing the evolution of Americans’ opinions towards seven issues (liberal-conservative identification, aid to blacks, defense spending, jobs and living standards, health insurance, government services and spending, and abortion) they conclude that ideological polarization from 1980s to 2000s has increased (Abramowitz & Saunders, 2008). Polarization was identified as ideological consistency in the answers, so it was measured on a scale computing the absolute value of the difference between the number of liberal positions and the number of conservative positions concerning these seven issues (the higher the value in the scale, the higher the polarization). Results showed that ideological polarization was greater among the well-educated and politically engaged segment of the population. Other authors distinguish between social polarization, “characterized by increased levels of partisan bias, activism, and anger”, which is growing due to partisan identity and political identity alignment, from issue position polarization, based on individual attitudes towards controversial debates (Mason, 2015).

¹⁵ The concept of “culture war” was coined by the sociologist James Davison Hunter and defined as the inevitable conflict between culturally orthodox Americans and culturally progressive Americans, as explained by Fiorina et al. (2005).

So the first difficulty encountered when studying polarization lies in the different conceptions and measurements used to tackle its analysis, because it can be defined in four different manifestations: ideological consistency, understood as the alignment to one of two sides; ideological divergence, involving that distribution of ideology moves apart; perceived polarization, as the degree to which the mass public perceives the parties and their followers to be polarized; and affective polarization, meaning interparty hostility (Lelkles, 2016).

The growth of popular polarization has been related to a new era of access to information, due to the arrival of cable TV and the Internet, which have multiplied the outlets and, consequently, the supply of news, and have fragmented the audience (Prior, 2007; Bennett & Iyengar, 2008). If fifty years ago people used to watch the same TV channels in US (ABC, CBS and NBC) and unavoidably got informed through their evening news programs, with the same set of balanced news reports, nowadays they can choose among a wide range of channels, can find outlets reinforcing their partisan preference or can just skip news, exercising selectivity in their choice (following the classical perspective of an active audience conceived in the uses and gratifications theory in the 1950s and 60s [Blumler, 1979]). And this heterogeneity of the audience can lead to slanted reporting, as the media have incentives to create or reinforce differences of opinions to divide the market and increase profits (Mullainathan & Shleifer, 2005).

Hence, polarization has been profusely analyzed in the United States and it has yet generated little research outside the American context, although some authors have studied this political tendency in Europe through different perspectives and variables. In the United Kingdom, a depolarizing process has been studied due to a dramatic convergence of the Labor and the Conservative parties in economic and social welfare policies in the last two decades of the 20th century (Adams, Green & Milazzo, 2012). Nevertheless, British politics has turned to a new dimension because of the *Brexit* referendum and its consequences, which have maintained and reinforced polarization. Around this

theme and based on the annual British Social Attitudes report, polarization is defined by the fact that few people think that leaving the EU will make any difference either way to the UK's future, that the support of *Brexit* varies markedly by social background, sense of identity and underlying values; and ultimately that British society "is divided into strongly committed 'Remainers' and strongly committed 'Leavers'" (Curtice & Montagu, 2018).

Based on the cases of Germany and Italy, polarization has been conceptualized in terms of leader support, assuming the personalization and presidentialization process developed in consolidated democracies in the recent decades, and a partisan gap in the leader support has proven to be a good indicator of political polarization in multiparty system (Barisione, 2016), concluding in strong evidence of polarization in Italy during electoral campaign and weaker in Germany.

In the Spanish context, one of the few studies conducted to analyze the phenomenon has concluded that party polarization explains issue voting, while elements in which there is party convergence are less relevant for voters (Orriols & Balcells, 2012), and that religion, nationalism and immigration are the polarizing topics, more so than other topics such as taxes, crime and the environment. And social media has been studied as moderators of polarized positions (Barberá, 2014).

This paper aims to contribute to analyze polarization in the context of a parliamentary democracy in southern Europe, centered in the particular case of Catalonia, the region experiencing an intense political and social debate around independence from Spain during the last decade, and focusing in mainstream media. As in the case of the United Kingdom with *Brexit*, the particularity of the Catalan scenario is that, unlike the vast majority of previous research on polarization, the key variable analyzed to explain the external divergence and internal consistency of sides is not the left-right axis, but the independence question. The objective of the research will be to analyze to what extent the

independence debate has driven the media to a form of polarization outside the commonly studied ideological left-right cleavage.

4.2 Theoretical framework

Polarization can be defined both as a state and as a process (DiMaggio, Evans & Bryson, 1996). As a state, it is referred to the extent to which opinions are opposed in relation to some theoretical maximum. And as a process, it is understood as the increase of such opinions over time. And it can be explained by a combination of increasing differences in opinion between opposing political camps and more consistent opinions within those camps (Prior, 2007; Levendusky, 2010).

In both cases, there are four principles that can be applied to identify polarization, according to DiMaggio et al. (1996): 1) dispersion, since opinions are diverse and far apart in content and relatively balanced between ends of the opinion spectrum; 2) bimodality, since people with different positions on an issue cluster into separate camps, with sparsely occupied locations between the two modal positions; 3) constraint, since opinions on any one item in an opinion domain are associated with opinions on any other, so it is an indicator of ideological cohesion; and 4) consolidation, since there is an identification of the members of groups on the basis of multiple indicators, opinion parameters and also structural parameters. The first two principles are within-population, while the second two are between-population.

The causes of elite polarization can be both sincere ideological differences about policy means and ends and also strategic behavior to exploit those differences to win elections (McCarty, 2015). One of the key factors explaining the rise of polarization is the party activists (Layman et al., 2010), as candidates compete for party nominations trying to persuade activists and voters with strong non-centrist positions.

In a context of elite polarization, parties struggle to influence the electorate conveying their position to voters on the issue of the day, which has an impact on the cue-taking process in two ways: increasing the ideological distance between the parties and increasing the ideological homogeneity within each party (Levendusky, 2010). By clarifying cues sent to voters with clearer signals, elite simplifies the cue taking and makes the ordinary voter easier to follow her party position rather than in a context of moderate unpolarized elites.

This position is consequent with the controversial Philip Converse's assumption (1964) that most of the American citizens are uninformed and have "non-attitudes" rather than meaningful political opinions. So partisanship constitutes the most influential determinant of vote choice (Campbell, Converse, Miller & Stokes 1960), as parties are "an opinion-forming agency of great importance", providing simple cues to evaluate matters of national politics beyond the knowledge of common citizens.

In the same direction and in terms of framing, other scholars hold that elite polarization stimulates the "partisan motivated reasoning" (Druckman, et al., 2013), a theory based on the premise that partisans consider their party's frame more effective than frames sponsored by other parties and they are more likely to be moved by their party's frame regardless of its strength (an evolution of the "motivated reasoning" psychological theory, suggesting that all reasoning is biased and driven by "directional goals" [Kunda, 1990]).

Therefore, polarization is a phenomenon related to engaged and informed citizens. Partisan-ideological polarization is greater among the engaged public, those whose beliefs and behavior more closely correspond to the ideal of responsible democratic citizenship, while moderation flourishes among those politically disengaged, the uninterested, the uninformed and inactive (Abramowitz, 2011). Political elites tend to pay disproportionate attention to the views of the politically engaged segments of the public, therefore candidates and elected officials become as polarized as this portion of the public. This polarization can increase the interest and motivation of members of the public to

vote and engage in political activities, increasing the size of the engaged public, while others remain uninvolved.

Polarization has been stronger among voters than in the general electorate, producing a growing gap between voters and non-voters that could be explained by the high-choice media environment. Prior (2007) divides the public into three groups in terms of media consumption preferences, the “Entertainment Only group”, who skip news on television, is the least partisan; the “Always News group” is highly informed and also the most partisan group; and the “Switchers” correspond to those who would watch news if nothing else was on television but would select an entertainment program instead if offered. The latter represent a third of the public, are between the two extremes in partisanship, and in a high-choice media environment the Switchers abandon the news for more attractive entertainment program. The scholar proves a correlation in his Conditional Learning Model between the kind of media consumption and partisanship and the election turnout, namely that greater media choice reduces turnout among entertainment-seekers but increases it among news fans. He concludes that the eruption of cable TV and the internet has changed the composition of the voting public since the representation of partisan voters has increased and elections are more guided by partisan sentiments than before, when there was a low-choice media environment.

In other cases, both entertainment and news consumption have been evaluated as a positive contributor to political knowledge and to participation in elections in the context of the European Union (De Vreese & Boomgaarden, 2006), although with a more pronounced effect in media containing more information about politics (broadsheet newspapers and public TV) than those outlets devoting less attention to it (tabloid newspapers and commercial TV).

This relationship between the revolution in information technology and a more divided electorate (which is not a coincidence) has increased the selective exposure of the public, who seek out information they believe is consistent with their preferences, and it has led to media choices increasingly reflecting

partisan considerations rather than a homogeneous and generic “point-counterpoint” (Iyengar & Hahn, 2009). Fox News in the US is a paradigm of this tendency. Iyengar and Hahn demonstrate that there is a considerable division in news selection between conservatives, attracted by Fox in a disproportionately large number, and liberals, that have a strong aversion to Fox however, they do not converge on a single source and divide their selection among CNN, NPR and BBC. This ideological polarization in news selection occurs not only when people are exposed to hard news but also with soft information such as sports and travel.

The linkage between polarization and media consumption has also been tested by Pew Research Center (2014), which concludes that people with the most consistent ideological views on the left and right have very different information streams from people with more mixed political views. Main differences prove that while consistent conservatives are clustered around Fox News (in 47% of cases) as their main news source, consistent liberals are less unified and have a variety of sources (15% CNN, 13% NPR, 12% MSNBC, 10% NYT). Consistent liberals show more trust than distrust of most of the news sources measured in the survey, contrarily to consistent conservatives. However, according to the report they share common ground: they closely follow government and political news. It also concludes that while these two segments of population comprise about 20% of the public overall, they tend to drive political discussions, they are more likely to vote, donate to campaigns and participate in politics, and therefore they have a greater impact on the political process than those with more mixed ideological views. Moreover, Pew Research Center’s data show that CNN’s and Fox News’ audiences are moving away from the middle and that Fox viewers are less familiar with critical stories about the Republican administration (Morris, 2005).

In the 2016 US presidential election, 40% of Donald Trump’s voters chose Fox News as their main source of information (Pew Research Center, 2017). It was their first choice far ahead of the alternative in second place (CNN, for the 13%), while Fox was the 11th option for Clinton voters who only named it as

their main source in 3% of cases, behind CNN (18%), MSNBCN (9%), Facebook (8%), Local TV (8%) and others. Other studies conclude that polarization in America is not symmetrical because it does not equally affect both sizes of the political map rather there is the emergence of a relatively insular right-wing ecosystem, which in the presidential election of 2016 presented partisan-disciplined messaging and moderated the effects of bad news for Trump's candidacy (Faris et al., 2017).

Unlike the United States, in France media polarization does not lie on the left-right axis but on a vertical axis opposing institutionalists to some sort of anti-elites, it does not happen within the traditional media space but between this space and new media, and it is less aligned to political actors (Patino et al., 2019). The French media space is still structured around a central "core" composed of the main newspapers, websites, radio and TV channels ranging from left to right (from Libération to Le Figaro) in opposition to new media, considered partisan biased. An example of this polarization was the coverage of the *yellow vests* protests which were reported in regional, international and online-only media from their beginning, in mid-November of 2018, and until December they were invisible to core French media, concerned with the consequences of the social movement for the government and the police.

From an audience perspective, another recent research also reached the conclusion that polarization is higher in the US than in Europe in general terms, and that in Europe is highest in UK followed by the southern countries such as France, Spain and Italy, whose media belong to Hallin and Mancini's pluralist model (2004), characterized by an interventionist role of the state and a party-media parallelism (Fletcher, 2020). It also remarks that the phenomenon is more evident in online media than offline media.

This connection between media and polarization turns the tables on the classical perspective of selective exposure theory, which contributed to the limited effect of media considering that the efficacy of mass communication is affected by various aspects such as predisposition (Klapper, 1960). The scholar

defined selective exposure as the tendency of people to expose themselves to mass communications in accord with their existing opinions and interest, and to avoid unsympathetic material, quoting studies such as Lazarsfeld, Berelson and Gaudet (1948), who concluded that “the most partisan people protect themselves from the disturbing experience presented by opposition arguments by paying little attention to them. Instead, they turn to that propaganda which reaffirms the validity and wisdom of their original decision -which is then reinforced.” Kappler stated that media “ordinarily work through mediators, rather than producing direct effects.” However, in its restored view, selective exposure is questioned as a limited effects contributor as it is proved to cause higher levels of polarization (Stroud, 2010), so that, in the context of the 2004 presidential election, liberal Democrats consuming more liberal media outlets held more polarized attitudes relative to other liberal Democrats, while conservative Republicans consuming more conservative media outlets held more polarized attitudes relative to other conservative Republicans. While her study concludes that partisan selective exposure contributes to higher political polarization, there is limited evidence suggesting the opposite direction, that polarization leads to agreeable media exposure.

Nevertheless, the bidirectional causality between selective exposure to media and their influence has been theorized in the framework of reinforcing spirals (Slater, 2007), which suggests that together media selectivity and media effects form a reciprocal, mutually ongoing influencing process over time. In that sense, some type of media usage influences corresponding beliefs or behaviors in one way, and that belief or behavior in turn increases that type of media usage in another way. According to this theory, this mutual reinforcement leads to the maintenance or strengthening of the attitude or behavior, leading in turn to continued or increased use of relevant media content. This perspective has two aspects: an individual-level model, and also a macro social-level version, considering that reinforcing spirals serve to maintain political, religious and lifestyle subcultures. Other similar concepts related to this exposure to media conforming one’s beliefs are the “echo chamber”, meaning a collection of outlets with aligned viewpoints and opinions citing and legitimating each other

(Jamieson & Cappella, 2008); and “filter bubble”, referring to the personalization of users’ content on the Internet through algorithms (Pariser, 2011).

On the other hand, with the new era of media, determined by cable TV and the Internet and characterized by fragmentation of the audience, it becomes less likely that media messages have any effect in attitude change and do anything other than reinforce prior predispositions since most media users rarely expose themselves to attitude-discrepant information (Bennett & Iyengar, 2008). High levels of political polarization among the public call into question the possibility that the audience has been persuaded by media messages, and the increasing selective exposure based on partisan preference brings them to presage a new era of minimal effects of media.

4.3 Methodology

The aim of this paper is to test the level of polarization derived from the political conflict between the pro-independence government ruling the autonomous region of Catalonia, based in Barcelona, and the Spanish central government, located in Madrid. Since 2012, the Catalan regional parties have openly defended the claim to hold a self-determination referendum, supported by massive demonstrations, and the regional government twice organized a unilateral vote on the matter, in 2014 and 2017. This debate has become the main issue in the Catalan political arena in recent years, gathering huge attention of both Catalan and Spanish mainstream media and even occasionally of the international press (Pallarès & Rodon, 2014; Guinjoan, Rodon & Sanjaume, 2013; Serrano, 2013).

Polls show divided public opinion in the Catalan society regarding the independence debate, with positions in favor and against it fluctuating between 40% and 50% depending on the period: according to the official survey of the Centre d’Estudis d’Opinió (CEO, 2019), in July 2019, 44% of people supported independence versus 48.3% who were against it; however, in March, four

months previously, those in favor represented 48.4% of the sample versus 44.1% who were against.

The statistical analysis in this paper will be based on historical data from the CEO¹⁶, which conducts opinion studies on a regular basis. We have used two different sets of samples as survey methodology has varied during the different waves of the studies. We will first use an integrated database with all surveys conducted between 2007 and 2014, which were based on phone interviews. The second period starts in 2015 and is based on a personal interview. With this caveat in mind, the survey questionnaires are consistent and the surveys include between 1,500 and 2,500 respondents per wave and every year encompasses the results of between three and four waves, fulfilling all the usual standards of survey methodology.

Media choice has proven to be a determinant factor in explaining electoral turnout in Catalonia, together with language and national subjective identification. Using this set of values, two cultural frameworks of reference can be defined: the Hispanic-centered and Catalan-centered (Fernández-i-Marín & López, 2010). A relationship between national identification of the population and the selective exposure to media that goes beyond the classical left-right cleavage has been proved by previous research (Hierro, 2012; Valera, 2018), although no causation of TV exposure in the support of independence has been found (Muñoz & Tormos, 2013).

The first hypothesis tests the level of polarization of the Catalan society in recent years, coinciding with this new debate on independence. Jacobson's methodology to check for polarization will be followed (2006), based on ratings of the political leaders' performance, and specifically the dispersion of the means between Democrats and Republicans, so to speak, the two extremes of public opinion. This method has also been used to analyze polarization in other

¹⁶ Extended tables of results elaborated by the authors based on CEO data are available in Appendix 5 and original data are accessible at ceo.gencat.cat.

countries, assuming that systematic tendency of voters to positively rate their party leaders and negatively rate other parties' leaders is a manifestation of political polarization (Barisione, 2016).

H1a. The ratings of the Catalan president have become more polarized since 2012, coinciding with the outbreak of the independence debate, with higher dispersion of the individual evaluations in the extreme grades (0-2, 8-10) and lower responses in the central grades (3-7).

A secondary hypothesis following on from the previous one will check if this polarization is effectively correlated to the independence debate and will test the homogeneity of the extreme positions in the most recent surveys of the CEO:

H1b. The extreme grades in the Catalan president's ratings correspond to homogeneous positions in favor and against independence respectively.

The second hypothesis concerns the constraint and the consolidation principles of the polarization; it will check the common view of the world of two groups of media consumers:

H2. The consumers whose preferential news source is Catalan media only have a notoriously different perception of reality compared with consumers whose preferential news source is Spanish media only, in terms of subjective aspects such as naming the main problem of the country and evaluating the economic and political situation.

This hypothesis will be tested following the cultivation analysis to confirm the impact of repetition of patterns on television, a method within the Cultural Indicators approach (Gerbner, 1998). It consists of examining, by means of surveys, the differences in social reality perception among people with varying amounts of exposure to television. This can determine the effect of "cultivation", understood as "the independent contribution that television viewing makes to

viewer conception of social reality.” Gerbner recognizes that this method does not lead to a causal relationship, as he remarks that cultivation is not unidirectional but rather a gravitational ongoing process between messages and contexts.

Unlike in cultivation studies we will not search for differences among light, medium and heavy consumers but between those who have Catalan media as a preferential news source versus those who have Spanish media as a preferential news source. So following the path of Stroud (2010) two indices of media exposure have been created from the outlet-specific selection in the CEO survey: the first is preferential exposure to Catalan media outlets, adding readers of Catalan newspapers, listeners of Catalan radio stations, viewers of Catalan TV outlets and readers of Catalan digital outlets. And the second index is preferential exposure to Spanish media outlets corresponding to the sum of the same responses but for the Spanish media.

And the third hypothesis is related to how the social polarization affects media audiences. The bimodality and dispersion characteristics described by DiMaggio et al. (1996) of polarization and also the polarization map (Fletcher et al., 2020) will be tested on the media audience:

H3. Media audiences of the main outlets consumed in Catalonia have become more homogeneous since 2010 due to an enlarged gap between the percentage of pro-independence readers/listeners/viewers and the pro-union audience and due to the reduced diversity of territorial preferences heightened by the population moving away from the average position.

4.4 Results

In order to analyze the first hypothesis, verification of the growing polarization in the Catalan society coinciding with the independence debate through the Catalan presidents' assessment, the mean and the standard deviation of the presidential rating are considered. Standard deviation indicates how much on average the leaders' rating deviates from the mean. Data is computed as an average of all surveys conducted during the presidents' term of office, unless indicated otherwise (Table 9).

Results show an overall tendency towards lower ratings of the presidents over time. Although the beginning of a new presidency by Mas and Puigdemont carried higher rates than the last year of their predecessors, there is a tendency to rate presidents with lower scores over time, to the extent that the four lowest ratings are recorded in the last five years of the series. The standard deviation of the presidential rating has always been over 2.5 after 2012, and under 2.4 before that year (with a single exception, which was in 2010, the year in which the Spanish Constitutional Court overruled the Catalan statute increasing its autonomy, thus the Catalan-Spanish relationship was again at the center of the political debate). This indicates that, aside from this outlier, the majority of cases (68.3%) fell within 5 points or fewer around the mean on the rating scale (0-10) before 2012; while, since then, they are more broadly scattered between the two extremes, requiring an interval of 6 and even 6.5 points to reach 68% of cases.

Table 9: Rating of the Catalan presidents (2006-2019)

	Mean	Standard deviation
Pasqual Maragall		
2006	5.45	2.36
José Montilla		
2007	5.33	2.30
2008	5.32	2.31
2009	5.11	2.37
2010	4.90	2.94
Artur Mas		
2011	5.97	2.39
2012	5.74	2.59
2013	5.20	2.82
2014 ¹⁷	4.98	2.92
2015	4.60	3.05
Carles Puigdemont		
2016	5.05	2.79
2017	4.64	3.26
Quim Torra		
2018 ¹⁸	4.63	3.13
2019 ¹⁹	4.53	3.10

Source: Elaborated by the author based on data from CEO.

For the second part of the first hypothesis, we have computed the extreme presidential ratings in relation to the respondents' position towards independence since 2012, when a consistent question about the independence of Catalonia was included in the surveys analyzed (Table 10).

¹⁷ In 2014, changes were introduced in the sampling and interview methods (from phone survey to personal interviews)

¹⁸ Quim Torra became president in May 2018; mean and s.d. computed for the second half of the year.

¹⁹ For 2019, data from a single survey available, March 2019.

Table 10: Internal homogeneity of Catalan presidential extreme evaluations 2012-2018 (Horizontal %)

	Supporting independence	Opposing independence
Rating extremely positive values (8-9-10)		
Artur Mas (2012-15)	85.97	11.36
Carles Puigdemont (2016-17)	90.27	6.18
Quim Torra (2018)	94.55	4.11
Rating extremely negative values (0-1-2)		
Artur Mas (2012-15)	14.81	79.15
Carles Puigdemont (2016-17)	6.36	87.5
Quim Torra (2018)	7.59	85.42

Source: Elaborated by the author based on data from CEO.

In this case, results confirm that the extreme ratings since 2012 correspond either to people supporting or rejecting independence with a high degree of homogeneity. Therefore, among those who evaluated the presidents with the highest ratings (from 8 to 10), between 85% and 95% of them were in favor of independence (with an increasing trend), and between 12% and the 4% were against it (with a decreasing trend). On the contrary, among those who assessed the presidents with the lowest ratings (from 0 to 2) 79% to 86% oppose independence, and 15% to 7% support it (also with a tendency to become more homogeneous over time).

Concerning the analysis of the second hypothesis, regarding the different perceptions of reality depending on media consumed, we have defined two subsamples aggregating the responses to three different questions of the survey. They ask for the respondent's (1) preferred TV channel, (2) preferred radio station and (3) preferred newspaper to keep informed. We have categorized the outlets mentioned by respondents according to whether they belong either to the Catalan media system (outlets whose main newsroom and contents are located and produced in Catalonia and whose targeted audience is mainly the Catalan population) or to the Spanish media system (outlets whose main newsroom and contents are located and produced in Spain but outside Catalonia and whose targeted answer is all the Spanish population). Based on the methodology of Cultural studies (Gerbner, 1998), we have constructed two subsamples from the categorized responses to the three aforementioned questions: a group composed of respondents whose preferred TV, radio and newspaper to keep informed belong to the Catalan media system (the three of them), which has been labeled "Catalan system's heavy consumers"; and a group composed of respondents whose preferred TV, radio and newspaper to keep informed belong to the Spanish media system (the three of them, too), which has been labeled "Spanish system's heavy consumers." Although the focus of interest is the contrast of perceptions between these two groups, the rest of the sample, those respondents with mixed preferences, has been also considered as a control group and it has been labeled "mixed consumers."

A first indicator to check this contrast are the responses of survey respondents to the open question of which are the main problems they identify in Catalonia, aggregating data from almost six years (from 2014 until mid-2019). These responses are automatically classified into several predetermined general categories by the CEO. The results (Table 11) show differences in the perception of the main problem of the country between the heavy consumers of each media system and mixed consumers of both. Unemployment and job insecurity is highlighted as the primary problem in Catalonia by every consumer type. While the Spanish system's heavy consumers and mixed consumers are around the global mean regarding this perception (29% to 31% of the

respondents consider this matter as the principal concern), the Catalan system’s heavy consumers are four percentage points below that (26%).

Among those who exclusively prefer Catalan media as their news source, the relationship between Catalonia and Spain is almost as important as the employment issue in this period (24%), more than 7 points above that of the third declared problem, dissatisfaction with politics (17%). Meanwhile, political dissatisfaction is the second concern among those who exclusively prefer Spanish outlets as their news source and also for mixed consumers (19% to 20% in both cases), nearly 2 points above that of the concern raised regarding the Catalan-Spanish relationship. So while there is a slight difference among media consumers (4 points) who consider unemployment as the main problem, this difference is higher regarding the territorial issue (nearly 8 points).

Table 11: Catalonia’s primary problem categorized by preferred media

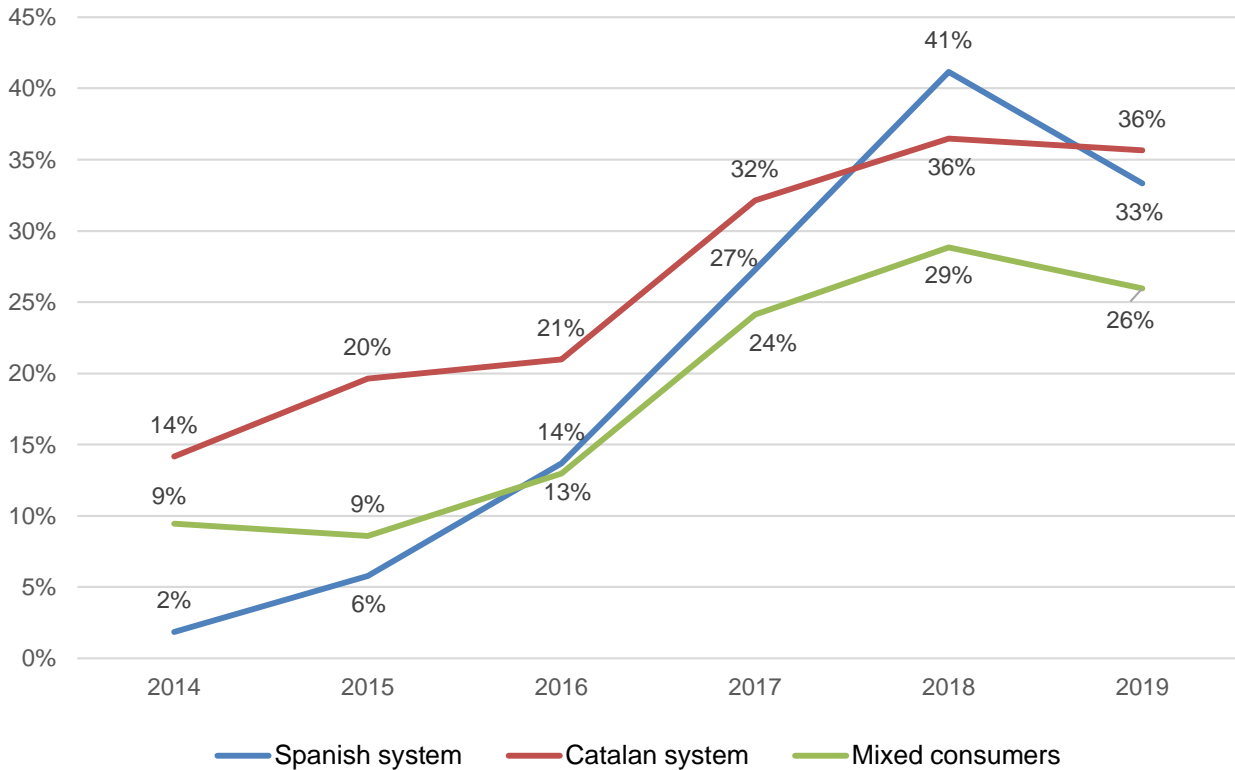
	Catalan system’s heavy consumers	Spanish system’s heavy consumers	Mixed consumers	Total
Unemployment and job insecurity	26.26	29.15	31.05	30.23
Dissatisfaction with politics	16.73	19.94	19.27	18.87
Catalonia-Spain relationship	24.31	17.73	17.09	18.28
Functioning of the economy	10.91	9.27	9.47	9.70

Source: Elaborated by the author based on data from CEO.

Focusing on the category related to concern over the independence debate, referred to as the Catalan-Spain relationship, a growing interest on the matter is observed since 2014 (Figure 12). While this concern almost doubled among the Catalan system’s heavy consumers in the six-year period (from 14% to 36%), it experienced an even more dramatic increase among the Spanish media’s

heavy consumers, from 2% in 2014 and increasing to 41% as their main concern in 2018.

Figure 12: Evolution of the declared problem "Catalonia-Spain relationship" categorized by preferred media system 2014-19 (%)



Source: Elaborated by the author based on data from CEO.

A second indicator to evaluate the contrasting views between media consumers are two CEO questions related to the perception of the political and economic situation. Specifically, the question is “Do you believe that the political situation of Catalonia next year will improve, will remain the same or will worsen?” and the same question is posed regarding the economic situation. Results show marked differences depending on the preferred media system as news source (Table 12). Whereas the Catalan system’s heavy consumers mostly believe that the political situation will improve annually during the period (48%, more than those who believe that it will deteriorate or remain the same), the Spanish media heavy consumers mostly think that it will deteriorate (34%) or it will

remain the same (31%), and mixed media consumers are divided between those who believe that the political situation will remain the same within a year (33%) and those who believe that it will improve (31%).

Table 12: Perception of the evolution of Catalan politics and economy by preferred media system 2014-19 (%)

	Catalan system's heavy consumers	Spanish system's heavy consumers	Mixed consumers	Total
Political situation next year				
Will improve	47.62	23.48	31.40	33.81
Will remain the same	25.86	30.96	32.89	31.73
Will worsen	11.54	34.17	20.91	19.70
Dk/Da	14.98	11.4	14.8	14.76
Political confidence rate	0.36	-0.11	0.10	0.14
Economic situation next year				
Will improve	37.23	22.22	27.78	29.16
Will remain the same	34.92	36.62	37.13	36.77
Will worsen	13.47	30.02	20.5	19.58
Dk/Da	14.38	11.15	14.6	14.49
Economic confidence rate	0.24	-0.08	0.07	0.10

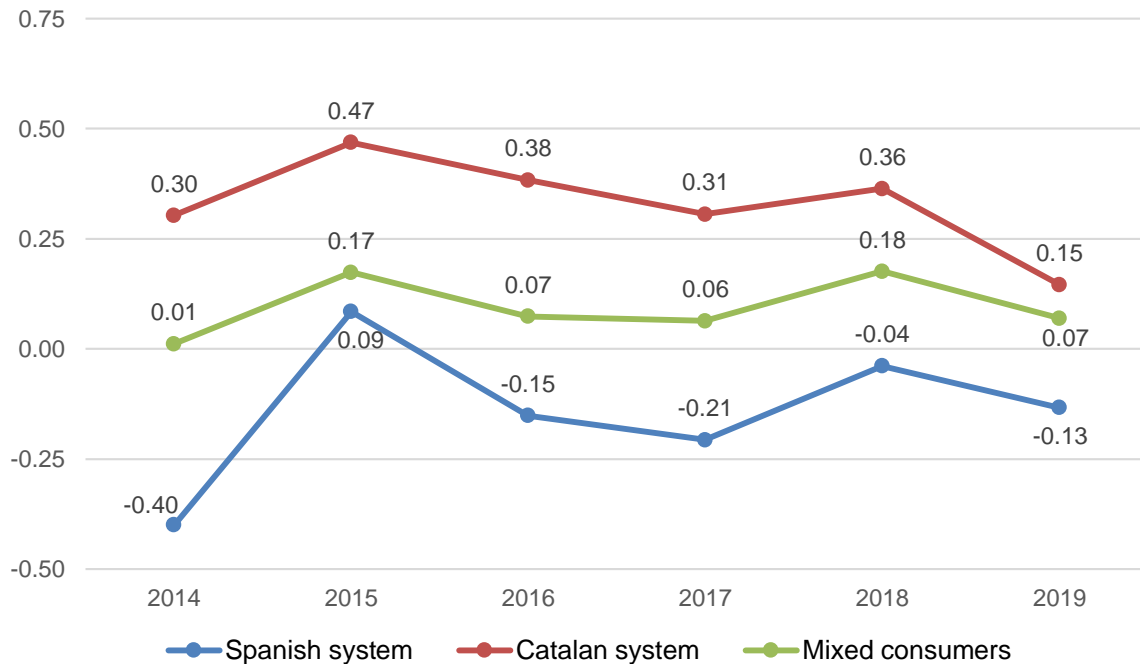
Source: Elaborated by the author based on data from CEO.

A political confidence rate has been calculated based on the answers to this question (the difference between those who think it will improve and those who think it will worsen expressed by one). It ranges from -1 to 1, and the difference between the Catalan system's heavy consumers and the Spanish system's is almost a half point (0.47).

The contrast of views regarding the economic situation is less notorious, since the central position, expecting it to remain the same within a year, is the answer of more than a third of the respondents in any case. It is the first option answered by the Spanish system heavy consumers and by the mixed consumers, while the Catalan media's heavy consumers are again more optimistic and a higher proportion of them think that the economy will improve. Thus, the differences in the economic confidence rate between Spanish media's and Catalan media's heavy consumers is lower (0.32).

The evolution of the political confidence rate in the period 2014-19 shows the same positions over time (Figure 13): Catalan system's heavy consumers have always been more optimistic than the Spanish and the mixed consumers. This optimism, however, reached its peak in 2015 (0.47) and decreased since then until 2019, when the rate was closer to the other consumer groups (0.15 versus 0.07 that of the mixed consumers and -0.13 of Spanish media consumers). The Spanish system's consumers' confidence in the political situation has always tended to be negative in this period except in 2015 (0.09).

Figure 13: Evolution of the political confidence's rate depending on the preferred media system 2014-19



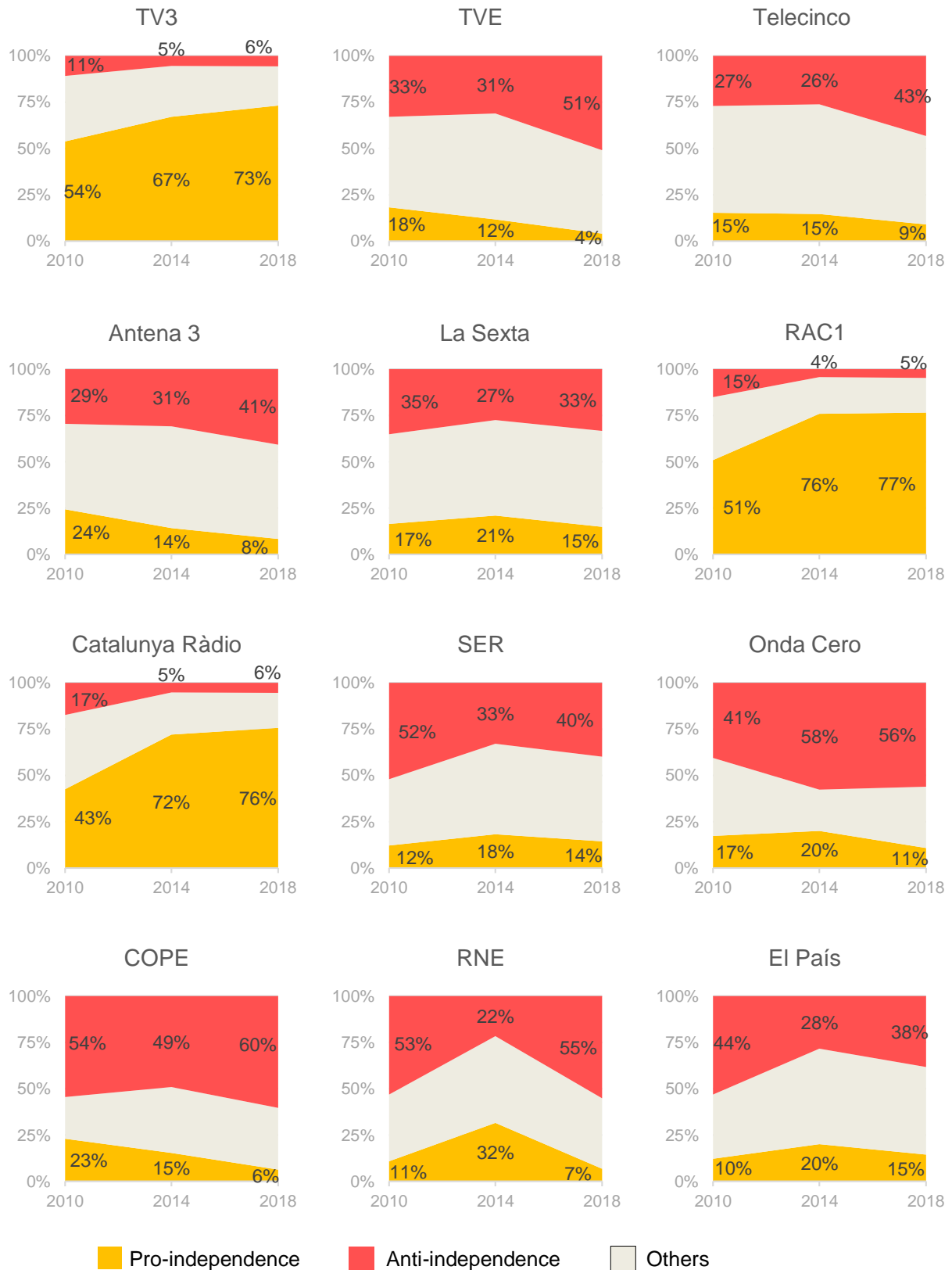
Source: Elaborated by the author based on data from CEO.

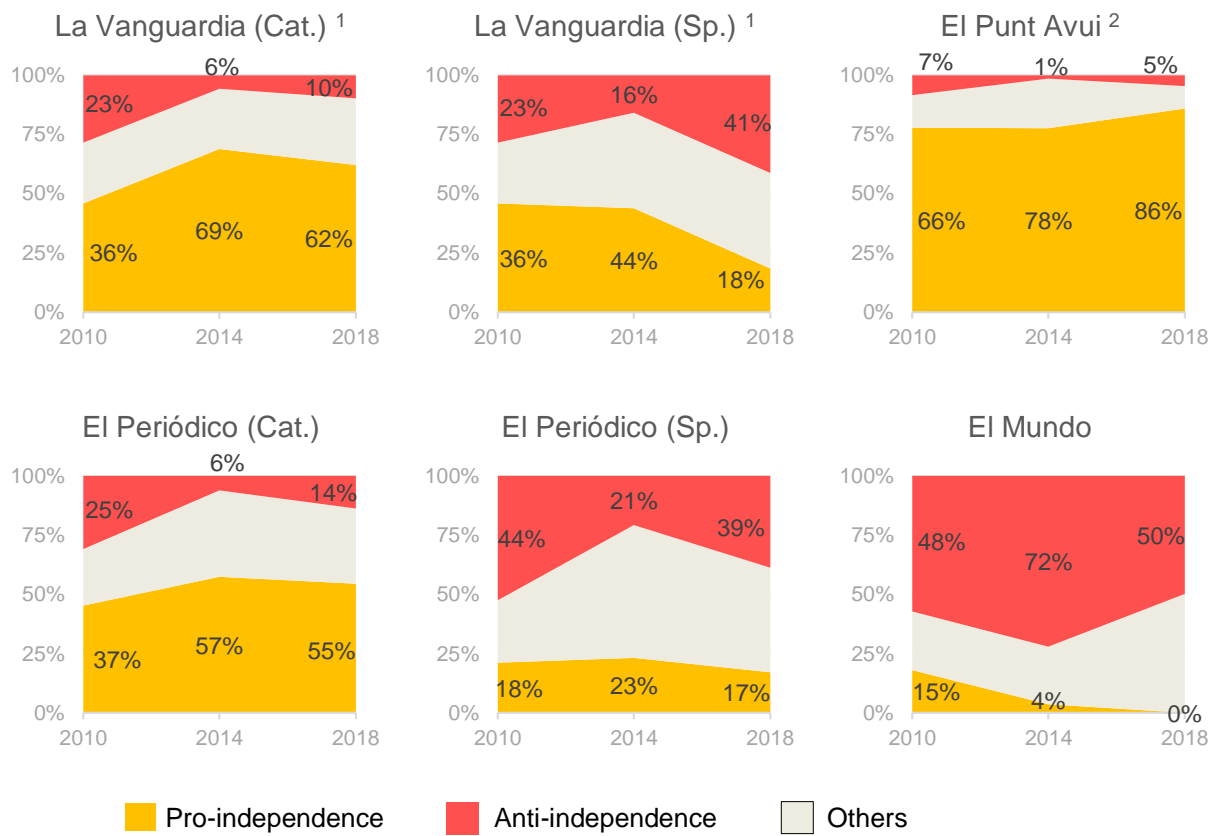
In order to test the third hypothesis, regarding homogenization of the media audiences due to the territorial debate, another two variables of the CEO survey have been considered: declared vote and territorial preference. A first look at the question has been taken after analyzing every subsample of respondents who prefer a given media. The audience of the five major TV channels, six major radio stations and five major newspapers have been categorized considering whether they are declared voters of pro-independence or Catalan nationalist parties (such as CiU/PDeCAT/Junts per Catalunya, ERC, CUP, Reagrupament, SI) or voters of anti-independence parties (such as PSC, Cs, PP, UPyD, PxCat). All other options have been grouped together in an “others” category (voters of parties with unclear position on the matter such as Catalunya en Comú Podem, Podemos, PACMA, ICV; blank voters, invalid ballot voters, abstainers and respondents who do not know/do not answer about their vote). The difference between pro and anti-independence party voters will be

regarded as an indicator of the degree of homogenization of the audience. Barcelona's two leading newspapers (La Vanguardia and El Periódico), which are printed in two editions, in Catalan and in Spanish, have been processed as two separate outlets, as the CEO survey does (in the case of La Vanguardia, since 2011, when printing of the Catalan edition began).

In 14 of the 18 analyzed outlets the difference between the proportion of audience voting parties in favor of independence and the proportion of voters of parties against it has increased from 2010 to 2018, before and after the territorial issue is on the agenda (Figure 14). Catalunya Ràdio, La Vanguardia (Catalan edition), RAC1 and TVE present the higher widening of this margin, over 30 percentage points (Table 13); followed by El Periódico (Catalan edition), Antena 3, TV3, COPE, El Punt Avui, Telecinco and Onda Cero, whose difference increased over 20 points. El Mundo, La Vanguardia (Spanish edition) and RNE have lower levels of increase of this indicator of homogenization, whereas in the case of La Sexta, El País, El Periódico (Spanish edition) and SER the evolution of homogeneity in these terms is negative during this eight-year period.

Figure 14: Proportion of voters of pro-independence and anti-independence parties among the audience by outlets 2010-2018 (%)





Source: Elaborated by the author based on data from CEO.

¹ La Vanguardia had one single edition (in Spanish) until 2011.

² El Punt Avui were two separate newspapers until 2011. Here we computed Avui's audience in 2010.

Table 13: Difference between voters of pro-independence parties and voters

Outlet	Difference	Outlet	Difference
Catalunya Ràdio	44.94	La Sexta	-0.12
La Vanguardia (Cat)	38.48	El Periódico (Sp)	-4.66
RAC1	35.85	El País	-10.08
TVE	32.09	SER	-14.58
El Periódico (Cat)	29.16		
Antena 3	27.38		
TV3	24.35		
COPE	22.66		
Avui / El Punt Avui	22.48		
Telecinco	22.45		
Onda Cero	21.87		
Mundo	16.65		
La Vanguardia (Sp)	9.16		
RNE	5.98		

Source: Elaborated by the author based on data from CEO.

A second indicator of media audience's homogeneity has been constructed based on a CEO question asking about the territorial preference: "¿In your opinion, should Catalonia be 1) A Spanish region, 2) An autonomous community, 3) A state within a federal Spain or 4) An independent state?" With the aim of measuring the homogeneity of media audience in reliance on this categorical variable, a statistical dispersion test has been applied: the Gini coefficient, which calculates inequality among values of a frequency distribution and it is commonly used in economics to estimate income and wealth inequality within a country or a community (Gini, 1909). In our case, the Gini coefficient will be useful as a barometer of the concentration of the audience's territorial preference on a certain option, so that if the sample is dispersed among the four values of the variable, the Gini coefficient (here understood as a homogeneity coefficient) will be close to 0; whereas if the sample is accumulated upon a

given value, the coefficient will be close to 1. The homogenization of the audience will be confirmed when this coefficient increases over time.

Table 14: Audience's homogeneity and its evolution by outlets 2010-19

Outlet	Homogeneity	Homogeneity	Homogeneity
	coefficient	coefficient	difference
	2010	2019	2010-19
TV3	0.289	0.563	0.27
Catalunya Ràdio	0.352	0.614	0.26
RNE	0.324	0.512	0.19
RAC1	0.407	0.566	0.16
Onda Cero	0.426	0.583	0.16
COPE	0.483	0.620	0.14
La Vanguardia (cat) ¹	0.331	0.457	0.13
La Razón	0.647	0.750	0.10
El Periódico (cat)	0.345	0.417	0.07
Telecinco	0.356	0.425	0.07
El Punt Avui	0.482	0.550	0.07
El Mundo	0.561	0.625	0.06
TVE	0.379	0.418	0.04
ABC	0.581	0.583	0.00
El País	0.414	0.408	-0.01
SER	0.421	0.383	-0.04
Antena 3	0.388	0.347	-0.04
El Periódico (cast)	0.370	0.273	-0.10
La Sexta	0.462	0.343	-0.12
La Vanguardia (cast) ¹	0.367	0.242	-0.12

Source: Elaborated by the author based on data from CEO.

¹ As La Vanguardia has not had two editions since 2011, its homogeneity coefficient difference has been calculated based on 2011 and 2019.

The homogeneity coefficient has been estimated for the audience subsample of the 20 most preferred Spanish and Catalan outlets consumed in Catalonia as a news source in 2010 (so before the independence debate arrived in the institutions) and in 2019, including both editions of the bilingual Catalan newspapers (Table 14). Results show that while in 2010 only three outlets' audiences had a coefficient higher than 0.5 (the Spanish La Razón, ABC and El Mundo), in 2019 this has been reached by ten of the audience's outlets (the three aforementioned newspapers; the Spanish radio stations COPE, Onda Cero and RNE; and the Catalan media Catalunya Ràdio, RAC1, TV3 and El Punt Avui). At the same time, in 2010, ten outlets' audiences had a homogeneity coefficient below 0.4 (TV channels Antena 3, TVE and Telecinco; Catalunya Ràdio; the Catalan newspapers El Periódico and La Vanguardia, with both editions; and the Catalan TV3, whose homogeneity coefficient was even below 0.3). However, in 2019 the homogeneity of media audiences in this lower range has been reduced to five outlets (the Spanish radio station SER, the TV channels Antena 3 and Sexta and the Spanish editions of La Vanguardia and El Periódico).

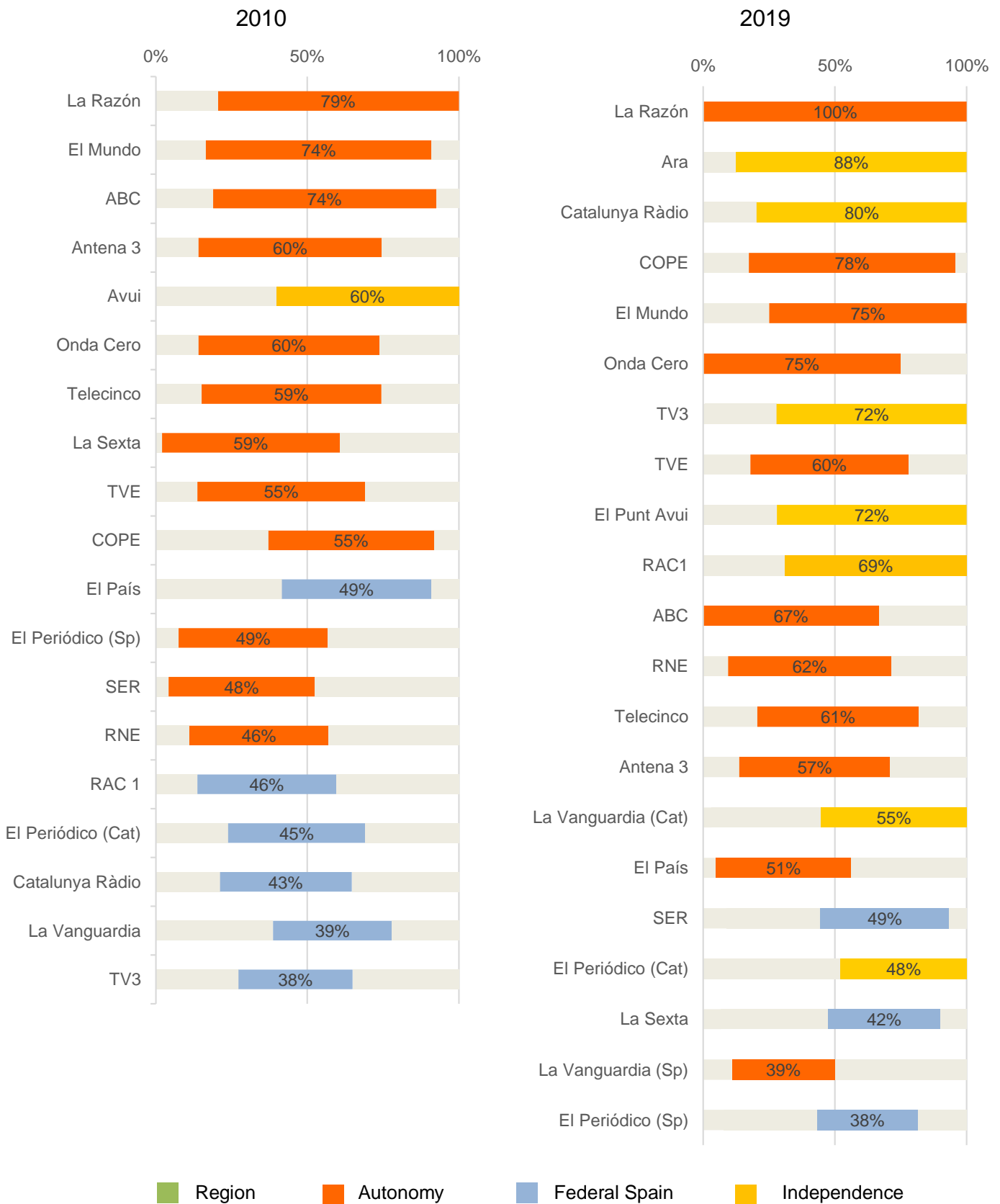
Concerning the evolution of this coefficient, the audiences of 13 of the 20 analyzed media have increased audience homogeneity in terms of territorial preference during this nine-year period. The public Catalan media, TV3 and Catalunya Ràdio, have been the two outlets with a higher increase of homogenization of their audience since 2010. The Catalan TV channel, which in 2010 had the most heterogeneous audience according to this coefficient, has increased its homogeneity by 0.27 points, almost the same difference as the public radio station. With the audience of the following six outlets experiencing an increase between 0.1 and 0.2 in the coefficient (a further four radio stations: RNE, RAC1, Onda Cero and COPE; the Catalan edition of La Vanguardia and La Razón); and five outlets with lower growth of between 0 and 0.1 (the Catalan edition of El Periódico, Telecinco, El Punt Avui, El Mundo and TVE). On the other hand, the newspaper ABC's audience has not increased its homogeneity during this period and it has decreased in the other six outlets analyzed (El País, SER, Antena 3, la Sexta, and the Spanish editions of El Periódico and La

Vanguardia, which in 2019 are the two outlets with the most heterogeneous audience according to the coefficient).

As a result of this evolution, in 2019 the audience of the majority of the outlets has a clearly preferred territorial option ahead of any other (Figure 15). So while in 2010 half of the outlets analyzed (10 out of 19, including bilingual edition of El Periódico) over 50% of the audience had a territorial preference, in 2019 this number rises to the extent that in 16 of the 21 outlets analyzed (including bilingual editions) this option was preferred by over 50% of their audience.

Observing what is the preferred option in those cases where it is chosen by more than the half of an outlet's audience, in 2010 in 9 cases the majority of the audience thought that Catalonia should be an autonomous community, and the tenth, should be become an independent state; whereas in 2019 there were 10 cases in which the most preferred option was autonomy with 6 others clearly preferring independence. Therefore, in this nine-year period the number of media whose audience had a majoritarian territorial preference has grown due to new cases of outlets with a pro-independence audience (five more cases), while the number of outlets with a mostly pro-autonomy audience has remained almost the same (just one additional outlet).

Figure 15: Audience's top territorial preference by outlet 2010-2019 (%)

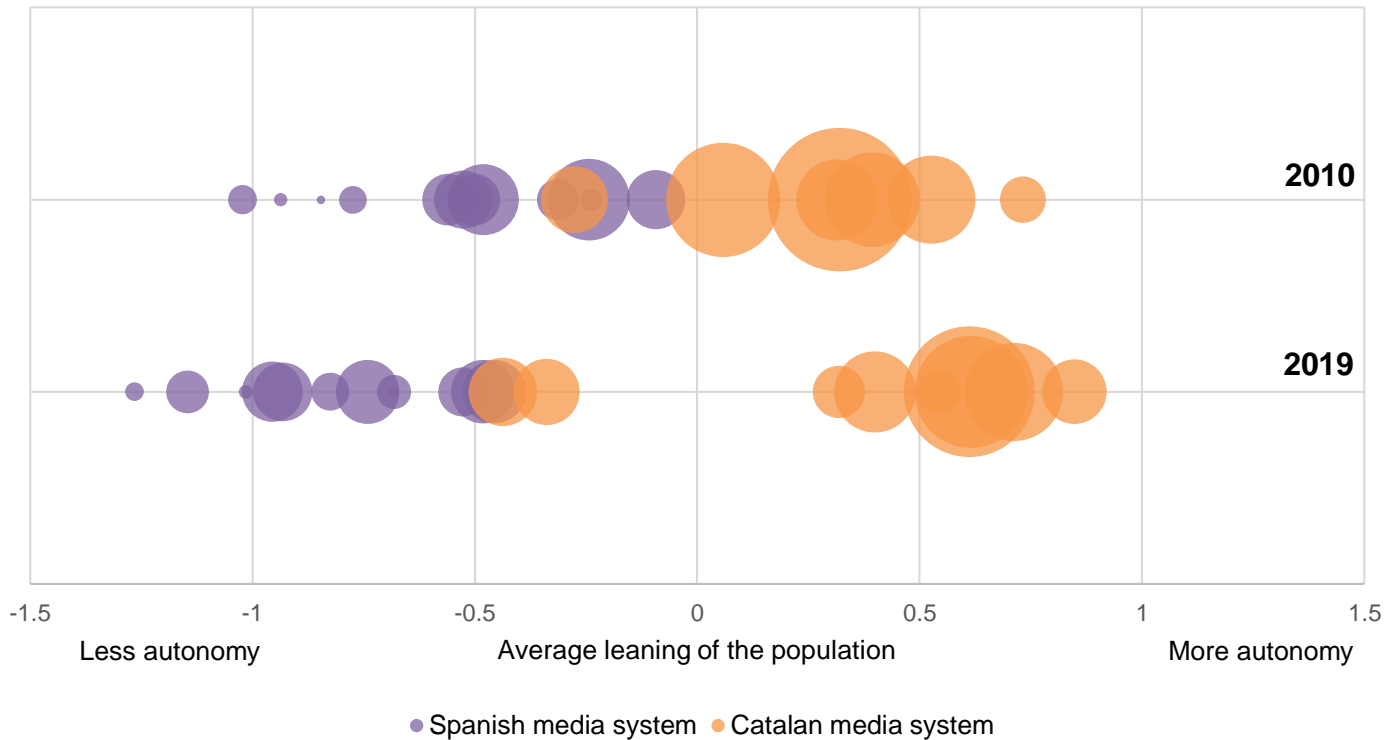


Source: Elaborated by the author based on data from CEO.

Focusing on those media in which the top preferred territorial option of the audience has changed, several tendencies can be observed. Firstly, media whose audience had federalism as its top option in 2010 and that by 2019 had shifted to independence. This was the case of the audience of the Catalan media TV3, RAC1, Catalunya Ràdio and the Catalan edition of *El Periódico*. Secondly, those outlets whose audience in 2010 preferred Catalonia to be autonomous and by 2019 they switched to federalism. This was observed among the Spanish outlets *La Sexta* and *SER*, and also the Spanish edition of *El Periódico*. In the opposite direction, there is the case of *El País*, whose audience in 2010 mostly preferred the federal option but in 2019 its preference was for Catalonia to be autonomous. Finally, there is the curious case of *La Vanguardia*, which in 2010 had a single edition (in Spanish), and the preferred option of their audience was a federal Spain, but in 2019, after becoming bilingual, each edition has other territorial preferences: autonomy, mostly chosen by the readers of the Spanish edition, and independence, mostly preferred by the readers of the Catalan edition.

Using the example on polarization maps by Fletcher et al. (2020) for a final analysis regarding territorial preferences, this qualitative variable has been converted into a continuous variable depending on the desired level of autonomy for Catalonia (a region = 1; an autonomous community = 2; a state within a federal Spain = 3; independence = 4). Based on this variable, the mean of each outlet's audience has been calculated in 2010 and 2019 and these values have been positioned on an axis with 0 as the mean of the population (2.7 in 2010, with a standard deviation of 0.90; and a population mean of 3.0 in 2019, with a standard deviation of 0.98). Each value has been dimensioned on the axis based on the percentage of the audience, estimated from the CEO questions, turning to the preferred TV/radio/newspaper as their news source.

Figure 16: Polarization map of media audiences in Catalonia based on territorial preferences in 2010 and 2019



Source: Elaborated by the author based on data from CEO.

The polarization map (Figure 16) resulting from this analysis depicts two clear tendencies confirming the phenomenon: firstly, while in 2010 most of the outlets fell within ± 0.5 points from the average leaning of the population in the elaborated territorial preference scale, in 2019, the bulk of them were outside this range; and secondly, the tails of this graph are longer in 2019 than in 2010, since media audiences are located in more extreme positions in the recent year than they used to be, since the audience of almost all the outlets have moved further from the center.

In 2010, there were a group of four small, outlying outlets in the left tail of the map, whose audience desired the same or less autonomy for Catalonia: the radio station COPE (territorial preference index = -1.02; audience = 2.3%), and the newspapers La Razón (-0.94; 0.5%), ABC (-0.85; 0.2%) and El Mundo (-0.77; 2%). A second group, around -0.5 further from the average included the

radio station Onda Cero (-0.56; 7%), and the TV channels Antena 3 (-0.53; 9%), Telecinco (-0.50; 7%) and TVE (-0.48; 13.4%). All of the aforementioned outlets belong to the Spanish media system. In a third group, slightly below 0 points there were the Spanish public radio station RNE (-0.31; ;4.6%) the Spanish edition of the Catalan newspaper El Periódico (-0.28; 11.8%), the Spanish radio SER (-0.24; 17.8%) and the Spanish TV channel Sexta (-0.24; 1.3%). Two newspapers were positioned closely around the central position: El País (-0.09; 9.2%) and La Vanguardia (0.06; 34.6%). And all the outlets whose audience's territorial position demanded in average more autonomy for Catalonia than the population mean belong to the Catalan media system: the Catalan edition of El Periódico (0.31; 17.5%), the public channel TV3 (0.32; 54.6%), the public station Catalunya Ràdio (0.39; 23.7%) and the private RAC1 (0.53; 20.6%), and the newspaper El Punt Avui (0.73; 5.6%). Only the former exceeded 0.5, unlike the in the negative half, where seven outlets reached or exceeded -0.5. In any case, all the outlets except for one (COPE) fell within the range of 1 standard deviation from the population mean.

However, in 2019 almost all the outlets of the Spanish media system are located further than -0.5 points in the index from the population mean: El Mundo (-1.27; 0.9%), COPE (-1.15; 4.8%), La Razón (-1.02; 0.5%) were over -1; followed by Telecinco (-0.96; 9.7), TVE (-0.93; 9.2%), RNE (-0.83; 3.8%), Antena 3 (-0.74; 10.8%), Onda Cero (-0.68; 3.1%); ABC (-0.68; 3.1%) and El País (-0.53; 6.4%). In the range [-0.5 – 0.5] previously occupied by half of the outlets there are only six left: the Spanish SER (-0.48; 10.7%) and La Sexta (-0.46; 10.7%), and both editions of the Catalan newspapers La Vanguardia and El Periódico, whose readers of the Spanish version lean towards the negative half of the axis (-0.44; 12.5% for La Vanguardia and -0.34; 11.5% for El Periódico) while their readers of the Catalan edition are inclined to the positive half of it (0.32; 7.3% for El Periódico and 0.40; 17.5% for La Vanguardia). Further than 0.5 from the population average there are El Punt Avui (0.54; 5.2%), TV3 (0.61; 45.2%), RAC1 (0.62; 33.4%), Catalunya Ràdio (0.71; 25.5%) and Ara (0.85; 11.1%). With a larger standard deviation, in 2019 only three outlets fell outside its range (COPE, El Mundo, La Razón).

The audience of all but three of the outlets increased their distance from the population mean from 2010 to 2019, being five Spanish media those leading the polarization (RNE, El Mundo, Telecinco, TVE and El País), with increases over -0.4 points of the index. They were followed by the two Catalan public outlets (Catalunya Ràdio and TV3), with an increase around +0.3 points. The audiences of the Spanish SER, La Sexta and Antena 3 also moved further from the center but with less intensity, between -0.20 and -0.25 points, and Onda Cero and COPE moved slightly to the extreme around -0.1. RAC1, La Razón and the Spanish edition of El Periódico polarized in less than ± 0.1 points. On the other hand, the Catalan edition of El Periódico in 2019 maintained the same distance from the population average as in 2010, and El Punt Avui and ABC, which were in the opposite tails of the axis in 2010, slightly decreased their polarization in 2019.

Once again, the polarization map confirms the division between the audience of the outlets belonging to the Catalan media system and those from the Spanish media system, since all the Spanish outlets' audiences desired on average less autonomy for Catalonia than the population mean, while (nearly) all the Catalan outlets' audiences demand on average more autonomy than the population mean. Although language also appears to be an important factor, considering that all media from the Spanish system are in Spanish and that the audience of the only Catalan outlets which print a version of the newspaper in Spanish (La Vanguardia and El Periódico with exactly the same content as in the Catalan edition but in a different language) leans towards preferring less autonomy for Catalonia than the population mean.

4.5 Conclusions

Once collected the results of the analysis and from a descriptive prospect, it can be concluded that the first hypothesis has been confirmed, since it has been proved a growing tendency of Catalan society to evaluate their presidents with extreme positions. This conclusion can be reached based on the standard deviations of the presidential ratings since 2006, which have been increasing progressively from around 2.30 to exceeding 3 in the last five years. It is also confirmed that the extreme grades in this rating correspond to homogeneous positions in favor of or against independence since 2012. Hence, between 85% and 95% of the extremely positive presidential ratings (8-10) correspond to supporters of independence, while around 80%-90% of the extremely negative grades (0-2) correspond to respondents opposing independence.

Concerning the second hypothesis, differences in the definition of the main problem and the evaluation of the future political and economic situation appeared in the analysis among consumers depending on their preferred media system. While those that only prefer Catalan media regard the Catalonia-Spain relationship as the second main problem of the region and mostly believe that politics and economy will improve next year, those consuming preferably Spanish media and mixed consumers view dissatisfaction with politics as more important than the territorial debate and believe that the political and economic situation will worsen or will remain the same within a year. These differences lead to verification of the second hypothesis.

Finally, the third hypothesis, regarding the homogenization of media audiences since 2010, is confirmed from the three perspectives taken to assess it. On one hand, the difference between the proportion of voters of pro-independence parties and the proportion of voters of pro-union parties has increased among audiences of 14 of the 18 analyzed outlets. On the other, the coefficient assessing the dispersion of territorial preferences applied to audiences shows that in 13 of the 20 studied cases homogeneity has increased, as has the number of media where a single preference reaches 50% of their audience.

Moreover, the polarization map resulting from the territorial preference confirms the increasing distance of the outlets' audiences from the central position represented by the population mean. Hence, the increase of internal homogeneity and external division between extremes leads to the conclusion that polarization is a growing phenomenon in media operating in Catalonia, which can be categorized to a large extent by the two media systems coexisting in the region.

Consequently, data assembled in this study reaffirm the existence of polarization in the Catalan society related to the independence debate, and how this phenomenon is affecting the audience of media consumed in Catalonia regardless of location. Regarding the main objective of this research, these findings enable to conclude that media polarization can be driven not only by ideological differences in the left-right axis, but also by territorial debates within a specific region, and mainstream media are affected by this tendency, since their audiences are able to select their sources of information from a wide range of outlets depending on their personal attitudes and beliefs.

Finally, causation has not been proved in this study and it would require a panel survey to determine this kind of relationship. In addition, qualitative analysis would be useful to enquire into the causes of homogenization of media audiences, that must go deeper than pointing at the content of media. Without considering variables such as the language, for instance, it could not be explained that readers of bilingual newspapers such as *La Vanguardia* and *El Periódico* have mostly different territorial preferences and homogenization depending on which edition they tend to read.

5. GENERAL CONCLUSIONS

The aim of the thesis was to explore the influence of the Catalan process on media operating in Catalonia through a variety of empirical methodologies and angles such as Media System Dependency (MSD), indexing model and polarization. After performing the analysis, this last chapter gathers their outcomes and draws the final conclusions of the research. The first article allowed us to observe a picture of the media systems dimension and, in the second and third articles, the classical combination of surveying plus content analysis permitted us to link the evolution of media audience to their content and to their governments' framing.

5.1 Summary of findings

These are the main outcomes resulting from the three articles compounding this thesis:

- The first article has challenged the assumption of MSD theory in the Catalan scenario testing whether the Catalan and the Spanish media systems hold a central position in Catalonia, as they have a sound portion of the audience stable over time. Data have shown that both systems maintain a share between 38% and 62% of the global audience of mainstream media (TV, radio and newspapers) throughout the analyzed period (2002-2014).
- It has also searched for significant differences in the evolution of the audiences of the main radio stations and TV channels consumed in Catalonia in the last quarter of the year since 2012 (2012-2017, coinciding with periods of high political intensity) than before 2012 (2004-2011). The multiple linear regression has confirmed that the evolution of the media audiences analyzed significantly differ since 2012 from the behavior they portrayed previously. Without establishing direct causation

to the political debate, it can be concluded that that year implies a turning point for the public preferences in the last quarter of the year. The before/after 2012 factor is the most influential variable of growth in the statistical model, ahead of other significant factors explaining the evolution such as belonging to the Spanish/Catalan system and the general tendency of the audiences through the year, which are the second and the third most influential variables, while their evolution is not significant in the rest of Spain.

- The analysis of the first article has also checked whether these differences in the evolution of the audience are significant depending on the outlet, the media system (Catalan or Spanish) and the channel (TV or radio). For the whole set of media analyzed (main TV and radio stations) the T-test of means has proved that the average evolution of the audience in the last term of the year significantly increases in a 1.1 percentage points annually since 2012, by evolving from a slight annual loss of -0.43 to a slight annual growth of 0.67. This change in the means of audience growth since 2012 is especially strong for the Catalan media system as a whole, and individually for their audio-visual outlets (TV3, Catalunya Ràdio and RAC1), which experience a significant difference of nearly 2 positive percentage points in the annual growth since that year compared to before.
- The second article has evaluated, through a media content analysis of the political information in the major four newspapers, four radio stations and four TV channels consumed in Catalonia in 60 selected dates which were relevant for the Catalan-Spanish institutions relationship in the period 2012-2015 (680 units), differences in the tone used by Catalan and Spanish media systems to refer to Catalan and Spanish political actors in the news. Results have shown that in the Catalan media system the tone associated with Catalan actors tends to be positive (37.1%) and unnoticed (34.5%) ahead of negative (24.8%), while for the Spanish actors the tone tends to be negative in most cases (54.8%), followed by

unnoticeable (33.3%) and positive (9.1%). Conversely, in the Spanish media system, the tone associated with Catalan actors in most cases tends to be negative (51.3%), followed by unnoticeable (30.2%) and positive (16.7). And for Spanish actors, the tone tends to be unnoticeable (42.5%), followed by negative (28.1%) and positive (26.1%).

- The content analysis of the second article has also assessed the presence of the issue-specific frames “right to decide” and “rule of law”, designed for the research based on speeches from the Catalan and the Spanish governments. Both frames are present in all the analyzed outlets, although the “right to decide frame” is more visible in the Catalan media system (85.8%) than in the Spanish system (68.3%), while the “rule of law” frame is slightly more widely used in the Spanish system (75.9%) than in the Catalan system (67.6%).
- When the content analysis tested the differences in the dominant issue-specific frame in the two media systems and their outlets in the same period, it has concluded that “right to decide” is clearly the most usual dominant frame in the Catalan media system (59.5%), before the cases in which none of them are dominant (22.4%) and “rule of law” is dominant (18.1%). There is a progression in the intensity of this dominance among the outlets of the Catalan system, clearly prevailing in RAC1, Catalunya Ràdio, El Punt Avui and TV3; while with lesser intensity in El Periódico and La Vanguardia, in which the most common situation is that none of the frames are dominant. “Rule of law” is equally dominant in the Spanish media system (57.5%), in which the cases where neither frame is dominant are also the second option (27.2%) and “right to decide”, the third (15.3%).
- As for the indicators compounding each issue-specific frame, results have suggested that Catalan people or their institutions being victims of mistreatment or discrimination by the Spanish state is the most common of the four indicators of the “right to decide” frame, followed by

presenting voting as a resolution to the political conflict, as the second more usual. As for “rule of law”, the most common indicator presents upholding the law and the Constitution as a political solution, and alerting of a social breakup in the Catalan society in second place.

- Regarding the third article of this thesis, an analysis based on data from official cross-sectional surveys from the Centre d’Estudis d’Opinió (CEO) checking whether there is an ongoing polarization process in Catalonia has proved that there is a tendency towards evaluating the Catalan president with more extreme ratings (as there is a progressive increase in the standard deviation of the ratings). It has also confirmed that it can be explained by the opposing positions about the independence debate, since the extreme scores are highly homogeneous in terms of being in favor or against independence (around 80%-95% of cohesion of every extreme grade).
- The same analysis has checked marked differences in the perception of reality by the audience (definition of main problems, evaluation of the political and economic situation) depending on their preferred media system as a news source. A gap between those who exclusively prefer to keep informed by the Catalan media system and those who prefer the Spanish system is observed in the perception of the Catalonia-Spain relationship as a main problem (nearly 7 percentage points) and the confidence in the future of Catalan politics and economy (0.3 – 0.5 in the rate).
- Finally, it has been assessed whether there is a process of homogenization of the audiences around the territorial debate due to this polarization. Results show that most of the major outlets operating in Catalonia (14 out of 18) have seen an increase in the difference between the proportion of their audience voting parties in favor of independence and the proportion of their audience opposing it in the period 2010-2018; and most of the outlets (13 out of 20) have seen an increase in their

audience's homogeneity in the period 2012-2019 according to the coefficient applied to check the dispersion of their preferred territorial options.

- As a result of this homogenization, it has been observed that the number of outlets with a clear territorial preference among their audiences (options chosen by over the 50%) has risen from 10 out of 19 in 2010 (most of them, 9 outlets, belonging to the Spanish media system and preferring that Catalonia remain as an autonomous community while the other one, belonging to the Catalan system, wanting it to become an independent state) to 16 out of 21 (the same as before and, in addition, 5 new outlets from the Catalan media system whose audience mostly prefers independence, and an outlet from the Spanish media system whose audience prefers that Catalonia remain as an autonomous community of Spain).
- Final evidence of the polarization is the increasing distance of media audiences from the central position represented by the population mean, illustrated by the polarization map elaborated from the index based on conversion of the territorial preferences into a continuous variable. From 2010 to 2019 all of the outlets but three enlarged their distance from the population average, leaving the central space emptier (± 0.5 points) and lengthening the tails of the axis.

Given these findings and going back to the underlying research question of the thesis, one clear conclusion that can be drawn from the results of the three articles is that during the political debate about independence (commonly referred to as “the Catalan process” or the Catalan conflict), media operating in Catalonia have experienced changes in terms of audience results, homogenization of audiences and parallelism to the government's promoted framing. These changes, however, have not been equal neither between media systems nor within them:

- Changes are more evident in the news organizations constituting the Catalan media system, as coinciding with the period of greater political intensity their TV and radio audiences have grown and have become more homogeneous around the issue (towards a pro-independence preference) to a higher degree than those media belonging to the Spanish system (which in some cases already had a more homogeneous audience in favor of the status quo). In both systems their dominant frame when reporting the matter has proven to be parallel to their closest institutions.
- Within the media systems, not all the outlets perform in the same way. On the one hand, some of them show in their news framing a high degree of parallelism to the political framing of the closest institutions, which is somehow consistent with greater homogenization of their audiences (such as *El Punt Avui*, *Catalunya Ràdio* and *RAC1*, in the Catalan media system, and *COPE*, *TVE*, *Telecinco* and *Antena 3* in the Spanish media system). On the other hand, some outlets manifest a lower degree of parallelism with their closest political institutions in their news framing and, at the same time, their audiences have experienced less homogenization during the period (such as *La Vanguardia* and *El Periódico*, in the Catalan system, and *El País* and *SER*, in the Spanish system).

5.2 Contribution

It has been a long time since the concept of “Catalan Communication Space” was created, in the 1980s, and developed at the end of the last century to define a possible media system concerning the whole territories where the Catalan language is spoken (Gifreu & Corominas, 1991). More than three decades on, the structure imagined from a normative perspective can be scanned from a positive approach with quantitative methodologies, nowadays in vogue in social sciences, to evaluate the current situation of media in Catalonia.

Although media operating in Catalonia have been subject to extensive research by scholars (such as Sábada, Rodríguez-Virgili, Castelló, Corominas, Cortiñas, Pont, Capdevila, O'Donnell and Montagut, among others, quoted in Gili [2017]) the issue has been revisited with the emergence of the independence debate.

The compilation of outcomes from the three articles composing this thesis offers an initial view of the alterations in the Catalan media panorama coinciding with the independence debate in terms of audience as well as the connection to frames promoted by their governments, based on empirical evidence. The contributions provided by this research can be presented in two dimensions: spatial (proved differences between media systems and their audiences) and temporal (proved differences between pre and post-2012).

From a spatial dimension, the first contribution of the thesis is this map of a region with two strong media systems operating in it, although in unequal conditions depending on the media type. While Catalan newspapers and radio stations present a dominant position in their markets, Catalan television is ranked as inferior with respect to Spanish channels. The markets where the Catalan media are hegemonic coincide with those where private outlets play a leading role (such as La Vanguardia, El Periódico and RAC1), while in television, the important presence of the Catalan public TV3 cannot equal the Spanish offer of public and private outlets. The particular evolution of radio in recent decades enables this equation to be understood: the Catalan system, even with a public broadcast corporation leading the audience in the sector (Catalunya Ràdio) in the 90s, was not able to dominate the market until it was complemented with a strong private competitor in the 2000s (in this case, RAC1).

Another contribution from a spatial viewpoint is the almost perfect correspondence between the outlets belonging to each media system in the terms described in the first article (location of their main newsroom, production of content and target audience) and their parallelism to the messages diffused by their nearest governments, resulting from the content analysis of the second

article following Van Gorp's methodology (2005). The twelve analyzed outlets could be easily allocated in each media system with no mistake just from the results of the media analysis, with one peculiarity: the La Vanguardia and El Periódico newspapers, which are the least linked Catalan outlets to the Catalan government's framing although being closer to it than to the Spanish's framing. This could be explained by the fact that their target audience includes also public from the rest of Spain, unlike the remaining analyzed Catalan outlets. It is also important to mention that the results of the content analysis correspond to the period 2012-2015, which circumscribe its conclusions to this interval and hinders a projection to following years. Changes in the editorial line (due, for instance, to the appointment of new directors) or forthcoming events (such as changes of parties and actors in office or in their policies towards the Catalan conflict) could have modified the perspective taken by the media towards the issue.

Compiling this evidence using the indexing model (Bennett, 1990) suggests a geographical correlation between media and governments. Obviously other internal and external variables (such as cultural grounding and social environment) also involved in framing (Van Gorp, 2007) must be considered before reaching any conclusive relationship between frame promoters and frame transmitters. But an initial linkage between political and media institutions can be made from this analysis in order to understand differences between content from the two systems.

Whereas, from the temporal dimension, one contribution that can be extracted from the first article is that, coinciding with the period of higher political intensity due to the conflict between the Catalan and the Spanish governments, Catalan broadcast media have experienced an accelerated growth of their audience in the last stage of the year, when big demonstrations in favor of self-determination and independence, unilateral referendums and elections to the Catalan parliament have happened. This could suggest that this age of uncertainty and conflict have increased citizens' need for information, as

highlighted by the Media System Dependency theory (Ball-Rokeach and De Fleur, 1976).

The other temporal contribution derived from the analysis of the media audiences leads to confirming a certain homogenization of media audiences because of the polarization of the Catalan society around the territorial debate. In the third article the existence of this growing tendency towards extreme evaluations and perceptions of reality has been confirmed and, moreover, that this phenomenon has somehow altered the audiences of mainstream media, making them more homogeneous in their territorial preferences. While this homogeneity was a fact before the Catalan process in Spanish media whose audience mostly defended Catalonia as an autonomous community, it has increased in other media whose audience now mostly wants Catalonia to become an independent state.

Although this thesis does not allow us to establish causal relations between media and audience or media and governments, it gives us clues about what Gerbner called a “gravitational process”, referring to cultivation studies, as a “continual, dynamic, ongoing process of interaction among messages and contexts” (1986). Following up this metaphor with the gravity rule, which establishes an equation including mass and distance as determining terms for the gravitational force, the findings of this thesis could be interpreted as the demonstration that the Catalan media together with Catalan society and their political institutions constitute a system with enough mass and enough proximity to pull themselves apart from the Spanish media and institutional system, but at the same time there is an important part of the Catalan population who are consumers of the Spanish system.

Beyond the results and concerning the scientific as well as the social relevance of the research, this thesis also intends to make a contribution in methodological terms, as it has introduced new scopes to study existing theories based on the peculiarity of the Catalan situation. Namely, the application of cultivation analysis, traditionally used in order to observe

differences between heavy consumers and non-consumers of TV, in this case has proven to be a valid method to check different perceptions between consumers from different media systems. Moreover, the use of issue framing to verify the indexing model from the perspective of two opposing governments and two alternative media systems also provides a new technique to test this theory.

With all the elements provided by this thesis research, it can be inferred that the so-called Catalan conflict has an impact in the tripartite relation among media-political power and society in Catalonia (Rogers and Dearing, 1996), whose interactions have been re-shaped by this debate. This is confirmed both in the connection between media and elites (reflected in the parallelism in their framing of the conflict) and in the relationship between media and public (with growing polarized audiences who are more interested in the issue). It is more difficult to establish the direction of this influence, which is probably mutual among the parties, as described by opposing theories such as mediatization, which explains the colonization of politics by media logic, and the indexing model, presuming a semi-dependence of media on elites to frame the topics. However, this interrelation enables us to conclude that the media are not an external independent agent observing what is going on in Catalonia rather they constitute another field of the conflict, an important one, corroborating (as stated in the introduction) that communication is united to conflict and that, also in this case, media are an indispensable factor to understand any political process.

5.3 Limitations

This thesis has been designed with the premise of taking full advantage of the current material available for the analysis. However, it has encountered limitations concerning the past and the present/future scopes of the research. For instance, the media content analysis in the second article covers the period in which the Consell de l'Audiovisual de Catalunya (CAC) has records by the time it was carried out; that explains why the analysis does not include news prior to 2012, which could allow a comparison of the proximity of media to

institutions before the emergence of the independence debate in the political ground. Another example: statistical analysis of the evolution of audiences, based on data from the Estudio General de Medios (EGM), in the first article could barely be conducted under homogeneous conditions beyond 2014 because one of the media holdings measured (Mediaset) abandoned the joint industrial committee responsible for the surveying, as explained in the first article.

5.4 Further investigation

A step further in the media research focusing on what is happening in Catalonia could be led around causation, aiming to study the effect that the Catalan process has on Catalan society in terms of media selection. This research could be developed at the individual level, with experiments presenting biased news to volunteers in order to check their reaction. It could also test how credible the news is to the experimental audience depending on the origin or language of the volunteer or the outlet issuing the tested news.

Exploration of causation could also be developed at an aggregate level with panel surveys assessing the impact of news for the same sample before and after a specific period of time. On the other hand, online media could also be a focus of attention of future studies, as they play an increasingly significant role in the configuration of public opinion.

Another potential extension of this work could be oriented towards comparative research, either by contrasting the situation of Catalonia with those of other communities within Spain, such as Basque Country and Galicia; or taking an international perspective, by analyzing together the media systems coexisting in Catalonia and those of other nations/regions with similar conditions, such as Scotland, Quebec or Flanders.

6. BODY OF THE THESIS

Martínez Amat, M. (2020). One country, two media systems: the evolution of the media audience in Catalonia in the context of the independence debate. *Comunicació: Revista de Recerca i d'Anàlisi*, 37(1), 53-73. <https://doi.org/10.2436/20.3008.01.190>

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APPENDIX 1. EGM DATA IN CATALONIA

Compilation elaborated by the author based on quarterly and annual data extracted from Estudio General de Medios (EGM).

1. Newspapers daily readers 1986-2015 (thousands of readers and %)

		TOTAL READERS CAT	LA VANGUARDIA	EL PERIÓDICO	EL PAÍS	AVUI	EL PUNT / PUNT AVUI	ARA	EL MUNDO	ABC	LA RAZÓN	PÚBLICO
1986	Abs	1,712	567	600	205	143	51			13		
	%	100.0	33.1	35.0	12.0	8.4	3.0			0.8		
1987	Abs	1,733	531	557	238	156	45			11		
	%	100.0	30.6	32.1	13.7	9.0	2.6			0.6		
1988	Abs	2,017	604	670	226	150	49			17		
	%	100.0	29.9	33.2	11.2	7.4	2.4			0.8		
1989	Abs	1,950	584	689	207	137	69			15		
	%	100.0	29.9	35.3	10.6	7.0	3.5			0.8		
1990	Abs	2,008	602	713	234	146	58					
	%	100.0	30.0	35.5	11.7	7.3	2.9					
1991	Abs	2,003	588	721	208	132	53					
	%	100.0	29.4	36.0	10.4	6.6	2.6					
1992	Abs	2,040	595	678	218	138	72		14			
	%	100.0	29.2	33.2	10.7	6.8	3.5		0.7			
1993	Abs	2,229	672	795	165	156	70		16			
	%	100.0	30.1	35.7	7.4	7.0	3.1		0.7			

1994	Abs	2,125	599	780	199	150	66	37		
	%	100.0	28.2	36.7	9.4	7.1	3.1	1.7		
1995	Abs	2,073	611	633	206	173	83	62		
	%	100.0	29.5	30.5	9.9	8.3	4.0	3.0		
1996	Abs	2,470	698	952	173	158	78	46		
	%	100.0	28.3	38.5	7.0	6.4	3.2	1.9		
1997	Abs	2,335	655	921	172	166	108	51		
	%	100.0	28.1	39.4	7.4	7.1	4.6	2.2		
1998	Abs	2,209	625	837	202	134	104	33		
	%	100.0	28.3	37.9	9.1	6.1	4.7	1.5		
1999	Abs	2,077	592	772	189	92	106	33		
	%	100.0	28.5	37.2	9.1	4.4	5.1	1.6		
2000	Abs	2,130	616	773	192	113	139	48	18	
	%	100.0	28.9	36.3	9.0	5.3	6.5	2.3	0.8	
2001	Abs	2,120	599	706	191	91	115	43		
	%	100.0	28.3	33.3	9.0	4.3	5.4	2.0		
2002	Abs	2,253	614	688	204	126	100	56	21	
	%	100.0	27.3	30.5	9.1	5.6	4.4	2.5	0.9	
2003	Abs	2,498	632	735	249	134	154	66	28	26
	%	100.0	25.3	29.4	10.0	5.4	6.2	2.6	1.1	1.0
2004	Abs	2,643	763	795	243	143	168	55		30
	%	100.0	28.9	30.1	9.2	5.4	6.4	2.1		1.1
2005	Abs	2,654	620	777	266	109	169	74	24	25
	%	100.0	23.4	29.3	10.0	4.1	6.4	2.8	0.9	0.9
2006	Abs	2,715	667	720	221	114	144	63	15	19
	%	100.0	24.6	26.5	8.1	4.2	5.3	2.3	0.6	0.7
2007	Abs	2,723	680	719	258	124	140	74	19	23
	%	100.0	25.0	26.4	9.5	4.6	5.1	2.7	0.7	0.8

2008	Abs	2,799	670	728	244	135	157		69	25	27	21
	%	100.0	23.9	26.0	8.7	4.8	5.6		2.5	0.9	1.0	0.8
2009	Abs	2,725	693	678	243	128	168		74	26	24	33
	%	100.0	25.4	24.9	8.9	4.7	6.2		2.7	1.0	0.9	1.2
2010	Abs	2,646	725	708	205	109	148		67	27	28	28
	%	100.0	27.4	26.8	7.7	4.1	5.6		2.5	1.0	1.1	1.1
2011	Abs	2,631	813	648	191		179	78	54		21	35
	%	100.0	30.9	24.6	7.3		6.8	3.0	2.1		0.8	1.3
2012	Abs	2,415	787	553	169		146	95	51		19	
	%	100.0	32.6	22.9	7.0		6.0	3.9	2.1		0.8	
2013	Abs	2,170	730	549	190		144	97	52		23	
	%	100.0	33.6	25.3	8.8		6.6	4.5	2.4		1.1	
2014	Abs	1,971	654	485	148		151	118	46		18	
	%	100.0	33.2	24.6	7.5		7.7	6.0	2.3		0.9	

Although they have been taken into account in the additions, this chart excludes newspapers such as Nou Diari de Barcelona, El Observador, Diario 16, Diario Español and Los Sitios, whose audience is previous to 1994; and also the rest of the regional press (that do not sell newspapers in the whole Catalonia) except for El Punt, which became global in Catalonia after melting with Avui).

Until 1997 EGM data do not provide a global audience figure of daily readers in Catalonia. In the previous years this result is an estimation made by the author based on the addition of the total amount of readers. Percentage numbers in every outlet is calculated in relation to the total amount of listeners of talked radio in Catalonia (100%, in this case).

2. Radio daily audience 2002-2014 (thousands of listeners and %)

		TOTAL LISTENERS CAT.	TOTAL LISTENERS SPAIN	CAT. RÀDIO	RAC1	SER	ONDA CERO	COPE	COM RÀDIO	ONA CAT /ONA FM	PUNTO RÀDIO	RNE	RÀDIO 4	CAT. CULTURA	ES RADIO	TOTAL TALK RADIO
2002	Abs	2,971	19,031	511	69	390	261	116	60	63		180				1,559
	%	15.6	100.0	32.8	4.4	25.0	16.7	7.4	3.8	4.0		11.5				100.0
2003	Abs	3,262	20,419	553	95	456	250	112	77	57						1,648
	%	16.0	100.0	33.6	5.8	27.7	15.2	6.8	4.7	3.5						100.0
2004	Abs	3,230	20,684	544	139	488	241	140	77	37				8		1,657
	%	15.6	100.0	32.8	8.4	29.5	14.5	8.4	4.6	2.2				0.5		100.0
2005	Abs	3,292	20,588	551	192	484	157	169	57		111	125	9	6		1,679
	%	16.0	100.0	32.8	11.4	28.8	9.4	10.1	3.4		6.6	7.4	0.5	0.4		100.0
2006	Abs	3,279	20,987	506	244	470	144	156	35		104	120	15			1,613
	%	15.6	100.0	31.4	15.1	29.1	8.9	9.7	2.2		6.4	7.4	0.9			100.0
2007	Abs	3,157	20,720	482	278	444	135	143	32	12	100	95	9			1,533
	%	15.2	100.0	31.4	18.1	29.0	8.8	9.3	2.1	0.8	6.5	6.2	0.6			100.0
2008	Abs	3,208	20,320	473	319	439	132	138	29	15	99	89	10			1,586
	%	15.8	100.0	29.8	20.1	27.7	8.3	8.7	1.8	0.9	6.2	5.6	0.6			100.0
2009	Abs	3,506	21,836	421	412	435	148	136	40	29	91	106	9			1,651
	%	16.1	100.0	25.5	25.0	26.3	9.0	8.2	2.4	1.8	5.5	6.4	0.5			100.0
2010	Abs	3,604	22,435	459	494	421	162	109	30	44	78	127	14			1,750
	%	16.1	100.0	26.2	28.2	24.1	9.3	6.2	1.7	2.5	4.5	7.3	0.8			100.0
2011	Abs	3,719	23,115	506	536	386	156	135	51	64		123	10			1,775
	%	16.1	100.0	28.5	30.2	21.7	8.8	7.6	2.9	3.6		6.9	0.6			100.0

2012	Abs	4,009	24,409	569	636	411	154	133		49	69	141	13	10	1,939
	%	16.4	100.0	29.3	32.8	21.2	7.9	6.9		2.5	3.6	7.3	0.7	0.5	100.0
2013	Abs	3,883	24,180	538	638	394	151	147		16		117	10		1,815
	%	16.1	100.0	29.6	35.2	21.7	8.3	8.1	0.0	0.9	0.0	6.4	0.6		100.0
2014	Abs	3,798	24,215	549	697	361	141	135		17		107	16		1,824
	%	15.7	100.0	30.1	38.2	19.8	7.7	7.4		0.9		5.9	0.9		100.0

Percentage numbers in the total amount of Catalan listeners is calculated in relation to the total amount of Spanish viewers (100%), while percentage numbers in every outlet is calculated in relation to the total amount of listeners of talked radio in Catalonia (100%, in this case).

3. TV daily audience 1997-2014 (thousands of viewers and %)

		TOTAL VIEWERS CAT.	TOTAL VIEWERS SPAIN	TVE	La 2	Antena 3	Telecinco	Cuatro / Canal +	La Sexta	TV3	C33 / K3 / Super3	8TV
1997	Abs	4,975	30,823	1,801	771	2,030	2,050	388		2,433	781	
	%	16.1	100.0	36.2	15.5	40.8	41.2	7.8		48.9	15.7	
1998	Abs	4,922	30,514	1,811	743	1,851	1,979	320		2,323	610	
	%	16.1	100.0	36.8	15.1	37.6	40.2	6.5		47.2	12.4	
1999	Abs	4,825	30,840	1,722	579	1,925	1,867	343		2,133	521	
	%	15.6	100.0	35.7	12.0	39.9	38.7	7.1		44.2	10.8	
2000	Abs	4,838	30,982	1,717	595	1,790	2,080	339		2,061	450	
	%	15.6	100.0	35.5	12.3	37.0	43.0	7.0		42.6	9.3	
2001	Abs	4,887	31,057	1,735	547	1,808	1,930	352		2,043	440	
	%	15.7	100.0	35.5	11.2	37.0	39.5	7.2		41.8	9.0	
2002	Abs	4,791	31,300	1,806	652	1,787	1,758	364		1,897	570	
	%	15.3	100.0	37.7	13.6	37.3	36.7	7.6		39.6	11.9	
2003	Abs	4,922	31,965	1,491	546	1,718	1,836	276		1,806	497	
	%	15.4	100.0	30.3	11.1	34.9	37.3	5.6		36.7	10.1	
2004	Abs	5,081	32,619	1,423	452	1,728	1,860	310		1,824	442	
	%	15.6	100.0	28.0	8.9	34.0	36.6	6.1		35.9	8.7	
2005	Abs	5,258	32,968	1,304	410	1,998	1,824	273		1,740	358	
	%	15.9	100.0	24.8	7.8	38.0	34.7	5.2		33.1	6.8	
2006	Abs	5,220	33,171	1,221	313	1,937	1,608	538		1,524	271	
	%	15.7	100.0	23.4	6.0	37.1	30.8	10.3		29.2	5.2	
2007	Abs	5,218	33,627	1,231	386	1,706	1,623	772	470	1,466	261	
	%	15.5	100.0	23.6	7.4	32.7	31.1	14.8	9.0	28.1	5.0	

2008	Abs	5,325	33,861	1,182	383	1,512	1,683	724	543	1,454	256	
	%	15.7	100.0	22.2	7.2	28.4	31.6	13.6	10.2	27.3	4.8	
2009	Abs	5,434	35,121	1,266	288	1,489	1,462	750	690	1,527	206	
	%	15.5	100.0	23.3	5.3	27.4	26.9	13.8	12.7	28.1	3.8	
2010	Abs	5,342	34,663	1,400	198	1,207	1,319	620	641	1,303	160	
	%	15.4	100.0	26.2	3.7	22.6	24.7	11.6	12.0	24.4	3.0	
2011	Abs	5,431	34,944	1,374	234	1,162	1,276	625	603	1,396	185	
	%	15.5	100.0	25.3	4.3	21.4	23.5	11.5	11.1	25.7	3.4	
2012	Abs	5,367	35,110	1,245	220	1,148	1,224	563	478	1,138	70	258
	%	15.3	100.0	23.2	4.1	21.4	22.8	10.5	8.9	21.2	1.3	4.8
2013	Abs	5,407	34,847	962	227	1,319	1,184	579	579	1,319	59	330
	%	15.5	100.0	17.8	4.2	24.4	21.9	10.7	10.7	24.4	1.1	6.1
2014	Abs	5,498	35,157	913	220	1,363	1,254	627	643	1,243	44	313
	%	15.6	100.0	16.6	4.0	24.8	22.8	11.4	11.7	22.6	0.8	5.7

Absolute numbers of audience of every outlet are calculated based on the percentage figures of audience, denominated “daily reach” by EGM, in relation to the total amount of Catalan viewers (100%). On the other hand, percentage numbers of the total amount of Catalan viewers is calculated in relation to the total amount of Spanish viewers (which represents 100% in this case).

4. Ranking of media by audience in 2002 and 2014 (thousands and %)

2002			2014		
EGM population	5,389	100	EGM Population	6,269	100
1 TV3	1,897	35.2	1 Antena 3	1,363	21.7
2 TVE	1,806	33.5	2 Telecinco	1,254	20.0
3 Antena 3	1,787	33.2	3 TV3	1,243	19.8
4 Telecinco	1,758	32.6	4 TVE	913	14.6
5 El Periódico	688	12.8	5 RAC1	697	11.1
6 La 2	652	12.1	6 La Vanguardia	654	10.4
7 La Vanguardia	614	11.4	7 La Sexta	643	10.3
8 K3/C33	570	10.6	8 Cuatro	627	10.0
9 Catalunya Ràdio	511	9.5	9 Catalunya Ràdio	549	8.8
10 SER	390	7.2	10 El Periódico	485	7.7
SUBTOTAL CATALAN TOP 10	4,280	79.4	SUBTOTAL CATALAN TOP 10	3,628	57.9
SUBTOTAL SPANISH TOP 10	6,393	118.6	SUBTOTAL SPANISH TOP 10	4,800	76.6
11 Cuatro / Canal +	364	6.8	11 SER	361	5.8
12 Onda Cero	261	4.8	12 8TV	313	5.0
13 El País	204	3.8	13 La 2	220	3.5
14 RNE	180	3.3	14 El Punt / El Punt Avui	151	2.4
15 Avui	126	2.3	15 Canal 3/24	148	2.4
16 COPE	116	2.2	16 El País	148	2.4
17 El Punt / El Punt Avui	100	1.9	17 Onda Cero	141	2.2
18 Catalunya Informació	98	1.8	18 Catalunya Informació	137	2.2
19 Diari de Tarragona	81	1.5	19 COPE	135	2.2
20 RAC1	69	1.3	20 Ara	118	1.9
21 Segre	66	1.2	21 RNE	107	1.7
22 Ona Catalana /Ona FM	63	1.2	22 Segre	102	1.6
23 COM Ràdio	60	1.1	23 Diari de Tarragona	76	1.2
24 El Mundo	56	1.0	24 Super 3	49	0.8
25 Regió 7	52	1.0	25 El Mundo	46	0.7
26 Diari de Sabadell	43	0.8	26 C33 / Super3 + 33 / K3	44	0.7
27 Diario de Terrassa	40	0.7	27 Diari de Girona	41	0.7
28 Diari de Girona	34	0.6	28 Regió 7	30	0.5
29 RN5	33	0.4	29 La Razón	18	0.3
30 ABC	21	0.4	30 Ona Catalana /Ona FM	17	0.3
31 La Mañana	21	0.4	31 Ràdio 4	16	0.3
			32 RN5	10	0.2
TOTAL CATALAN MEDIA	5,133	95.3	TOTAL CATALAN MEDIA	4,871	77.7
TOTAL SPANISH MEDIA	7,628	141.5	TOTAL SPANISH MEDIA	5,986	95.5

It includes all generalist outlets over 10,000 people of audience. Accumulative figures do not represent real population, as audiences added can be shared across several outlets. In orange, outlets belonging to the Catalan media system; in white, those belonging to the Spanish system.

5. Overall accumulated audience results by media system 2002-2014 (thousands of consumers)

NEWSPAPERS	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Catalan newspapers	1,865	2,068	2,194	1,983	1,940	1,917	1,959	1,865	1,968	1,987	1,863	1,801	1,657
Spanish newspapers	281	369	328	389	318	374	386	400	355	301	239	265	212
<i>Difference</i>	<i>1,584</i>	<i>1,699</i>	<i>1,866</i>	<i>1,594</i>	<i>1,622</i>	<i>1,543</i>	<i>1,573</i>	<i>1,465</i>	<i>1,613</i>	<i>1,686</i>	<i>1,624</i>	<i>1,536</i>	<i>1,445</i>
RADIO	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Catalan radio	703	782	805	815	800	813	836	911	1,041	1,167	1,267	1,202	1,279
Spanish radio	947	818	869	1,046	994	917	897	916	897	800	918	809	744
<i>Difference</i>	<i>-244</i>	<i>-36</i>	<i>-64</i>	<i>-231</i>	<i>-194</i>	<i>-104</i>	<i>-61</i>	<i>-5</i>	<i>144</i>	<i>367</i>	<i>349</i>	<i>393</i>	<i>535</i>
TV	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Catalan TV	2,635	2,549	2,525	2,377	2,010	1,951	1,795	1,842	1,538	1,646	1,594	1,806	1,946
Spanish TV	6,367	5,867	5,772	5,810	5,617	6,188	6,028	5,945	5,384	5,273	4,878	4,850	5,020
<i>Difference</i>	<i>-3,732</i>	<i>-3,317</i>	<i>-3,247</i>	<i>-3,433</i>	<i>-3,607</i>	<i>-4,237</i>	<i>-4,234</i>	<i>-4,103</i>	<i>-3,846</i>	<i>-3,628</i>	<i>-3,284</i>	<i>-3,044</i>	<i>-3,073</i>
GLOBAL	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Catalan system	5,203	5,399	5,524	5,175	4,750	4,681	4,590	4,618	4,547	4,800	4,724	4,809	4,882
Spanish system	7,595	7,054	6,969	7,245	6,929	7,479	7,311	7,261	6,636	6,374	6,035	5,924	5,976
<i>Difference</i>	<i>-2,392</i>	<i>-1,654</i>	<i>-1,445</i>	<i>-2,070</i>	<i>-2,179</i>	<i>-2,798</i>	<i>-2,722</i>	<i>-2,643</i>	<i>-2,089</i>	<i>-1,575</i>	<i>-1,311</i>	<i>-1,115</i>	<i>-1,093</i>

6. Quarterly average variation of the radio audience in Catalonia and Spain 2004-2015 (in percentage points)

	AUDIENCE IN CATALONIA			AUDIENCE IN SPAIN
	Generalist radio	Catalan media system	Spanish media system	Generalist radio
AVERAGE 2004-2011				
FEBRUARY-MARCH	0.8	1.0	-0.8	0.7
APRIL-MAY	-1.4	0.9	-1.2	-1.2
OCTOBER-NOVEMBER	0.5	-1.0	0.9	-0.0
AVERAGE 2012-2015				
FEBRUARY-MARCH	0.5	-0.5	-0.1	0.9
APRIL-MAY	0.2	-0.8	0.3	-0.6
OCTOBER-NOVEMBER	-0.3	2.6	-0.5	-0.2
DIFFERENTIAL BETWEEN THE OCT-NOV AND TWO PERIODS	-0.7	3.6	-1.4	-0.1

7. Quarterly average variation of the TV audience in Catalonia and Spain 2004-2015 (in percentage points)

	AUDIENCE IN CATALONIA			AUDIENCE IN SPAIN
	TV viewers	Catalan media system	Spanish media system	TV viewers
AVERAGE 2004-2011				
FEBRUARY-March	0.4	-1.5	7.0	1.0
APRIL-MAY	-0.1	-0.6	-4.9	-1.2
OCTOBER-NOVEMBER	-0.4	-1.4	-4.4	0.0
AVERAGE 2012-2015				
FEBRUARY-March	1.8	-1.5	-2.3	1.9
APRIL-MAY	-0.7	0.7	-5.0	-1.8
OCTOBER-NOVEMBER	-0.9	2.5	-0.8	-0.1
DIFFERENTIAL OCT-NOV BETWEEN THE TWO PERIODS	-0.5	4.0	3.6	-0.2

8. Quarterly average variation of the main TV and radio outlets' audience in Catalonia 2004-2015 (in percentage units)

	CAT. RÀDIO	RAC1	SER	ONDA CERO	COPE	TV3	TVE	TELE 5	A3	CUATRO	LA SEXTA
AVERAGE 2004-2011											
FEBRUARY-March	0.3	0.6	-0.1	0.1	-0.8	-1.4	-0.1	0.8	2.1	2.3	1.6
APRIL-MAY	0.3	0.6	-0.8	-0.6	-0.4	-0.4	-0.8	-1.3	-1.7	-0.7	0.1
OCTOBER- NOVEMBER	-1.0	0.2	0.2	0.0	0.9	-0.2	0.4	-1.3	-2.0	-1.1	-1.3
AVERAGE 2012-2015											
FEBRUARY-March	-0.6	0.1	-0.0	-0.2	0.2	-1.3	1.3	-3.0	2.0	-3.2	-0.2
APRIL-MAY	-0.4	-0.4	0.1	0.3	0.1	0.2	0.1	-3.3	-1.3	-0.6	0.6
OCTOBER- NOVEMBER	1.5	1.8	-0.4	-0.4	0.0	0.9	-3.7	0.7	0.5	1.1	0.9
DIFFERENTIAL OCT-NOV BETWEEN THE TWO PERIODS	2.5	1.6	-0.5	-0.4	-0.9	1.2	-4.0	2.0	2.5	2.2	2.1

9. Quarterly variation of radio audience in Catalonia and Spain 2004-2017

	Variation in Catalonia		Variation in Spain		Catalan media system	Spanish media system	Catalunya Ràdio	RAC1	SER	Onda Cero	COPE	Rest of Spain
	global	Talk radio	global	Talk radio								
April-May 2004	-7.8	-4.8	-4.2	-2.9	1.4	-1.8	0.9	1.1	-1.1	-0.0	-0.6	-4.2
Oct-Nov 2004	-1.7	-1.2	-0.2	-0.8	-1.4	0.2	-1.3	-0.4	0.3	-1.8	1.7	-1.0
Feb-Mar 2005	4.4	0.8	3.3	1.1	2.2	-0.8	1.2	0.9	0.5	-1.2	-0.1	0.2
April-May 2005	-1.7	-0.2	-3.0	-0.9	-1.5	5.7	-0.9	0.3	-0.5	-0.2	-0.5	0.1
Oct-Nov 2005	0.3	1.1	-0.3	-0.3	-1.1	-0.1	-0.6	0.9	-1.2	-0.3	1.0	1.3
Feb-Mar 2006	2.3	0.3	1.8	0.5	0.1	-4.4	-0.3	0.4	0.8	0.4	-5.6	-0.1
April-May 2006	-3.0	-0.9	-2.8	-2.0	0.4	-2.5	-0.0	0.5	-0.5	-1.1	0.0	-0.5
Oct-Nov 2006	-1.4	0.7	-0.0	0.3	-0.5	6.3	-0.8	0.4	0.4	0.8	4.9	1.1
Feb-Mar 2007	0.3	-0.4	0.4	0.3	2.0	0.8	0.8	1.0	0.5	0.1	0.2	-0.6
April-May 2007	-2.2	-2.0	-2.1	-1.2	-0.3	-4.6	0.1	-0.1	-1.9	-0.8	-0.8	-1.9
Oct-Nov 2007	0.8	0.6	0.8	0.4	-1.4	2.0	-1.3	-0.1	1.2	0.4	-0.3	0.6
Feb-Mar 2008	-0.9	-1.6	0.4	-0.3	0.9	0.4	0.1	0.8	-0.2	0.7	0.3	-1.7
April-May 2008	0.4	-0.8	-0.5	-0.5	1.4	-1.4	1.4	-0.4	-0.3	-1.4	0.0	-1.1
Oct-Nov 2008	3.1	2.6	2.0	0.8	0.2	-0.7	-2.2	2.0	-0.6	0.4	-0.3	2.5
Feb-Mar 2009	2.4	2.1	-0.4	0.6	-1.4	-0.3	-1.5	0.5	-0.8	0.4	0.4	2.1
April-May 2009	-1.4	-2.3	-0.4	-1.3	0.9	-0.4	-0.3	0.5	-0.3	-0.0	-0.7	-2.5
Oct-Nov 2009	0.3	0.6	-0.0	-0.2	-0.4	-1.1	-0.0	-0.4	0.3	-0.2	-0.6	0.7
Feb-Mar 2010	0.9	1.3	1.1	0.6	1.7	-0.2	0.3	1.1	-0.5	0.6	-1.0	1.4
April-May 2010	3.5	1.8	1.6	0.4	2.2	-1.3	1.3	1.3	-0.9	-0.4	0.5	1.5
Oct-Nov 2010	-3.6	-1.7	-1.1	-1.1	-0.7	2.4	-1.2	0.4	0.8	0.2	1.4	-1.4
Feb-Mar 2011	3.4	3.1	0.9	2.0	1.5	-0.7	1.3	-0.6	-0.8	0.0	0.1	3.1

April-May 2011	-0.7	-2.0	-0.1	-1.7	2.7	-3.1	0.3	1.5	-1.3	-0.9	-0.7	-2.2
Oct-Nov 2011	0.8	1.2	-0.6	0.5	-2.7	-1.7	-0.7	-1.2	0.1	0.7	-0.2	1.3
Feb-Mar 2012	3.5	3.2	2.7	2.9	2.4	0.3	0.9	1.8	-0.3	-0.2	-0.2	3.1
April-May 2012	1.3	0.0	0.1	-1.3	-1.5	1.0	-0.6	-1.2	1.2	-0.4	0.2	-0.2
Oct-Nov 2012	1.2	0.0	1.5	0.4	1.5	0.2	1.4	2.3	-0.5	-0.2	0.2	-0.2
Feb-Mar 2013	-2.1	-0.3	-2.1	-0.3	-2.0	-1.6	-0.7	-1.1	0.2	-0.3	0.1	0.0
April-May 2013	-1.2	0.4	-1.3	-0.4	-1.9	0.4	-1.6	0.3	-0.9	1.0	0.3	0.7
Oct-Nov 2013	0.0	-1.1	0.3	-1.1	3.2	0.2	2.0	1.2	0.8	-0.1	-0.0	-1.4
Feb-Mar 2014	-2.3	0.4	-0.6	0.8	-0.4	-0.4	-1.6	0.6	-0.5	-0.7	0.2	0.9
April-May 2014	1.1	-0.3	0.5	-0.7	1.4	-1.3	1.4	-0.1	-0.3	0.6	-0.6	-0.5
Oct-Nov 2014	-1.2	-0.1	0.5	0.1	2.2	-0.9	1.4	1.4	-0.5	-0.4	-0.3	0.1
Feb-Mar 2015	1.6	-1.2	-0.1	0.0	-1.8	1.3	-1.1	-0.7	0.6	0.4	0.6	-1.7
April-May 2015	0.4	0.5	0.3	-0.2	-1.2	0.9	-0.8	-0.5	0.3	0.0	0.4	0.6
Oct-Nov 2015	-0.5	0.2	0.7	-0.1	3.5	-1.6	1.3	2.2	-1.2	-0.9	0.1	0.3
Feb-Mar 2016	-0.2	0.4	0.0	0.8	-1.1	1.4	-0.1	-1.0	1.7	-0.1	0.3	0.5
April-May 2016	-1.6	-0.8	-2.7	-1.0	-2.7	-1.4	-1.6	-1.1	-1.4	-0.1	0.0	-0.7
Oct-Nov 2016	-1.2	-0.8	-0.5	-0.7	1.0	-0.2	-0.2	1.2	-0.7	0.3	-0.2	-0.7
Feb-Mar 2017	3.4	0.4	2.4	0.4	1.6	0.9	1.8	-0.2	0.1	0.5	0.4	-0.2
April-May 2017	-1.3	-0.2	-1.0	-0.3	-1.5	-0.0	-1.3	-0.2	-0.0	-0.1	-0.2	-0.0
Oct-Nov 2017	-2.0	-0.2	3.3	0.8	8.1	1.6	4.2	3.8	1.6	-0.4	0.7	0.2

10. Quarterly variation of TV audience in Catalonia and Spain 2004-2017 (in percentage points)

	Variation in Catalonia	Variation in Spain	Catalan media system	Spanish media system	TV3	TVE	Telecinco	Antena 3	Cuatro	Sexta	Rest of Spain
April-May 2004	1.7	-3.0	-9.5	-9.9	-5.3	-4.1	-0.2	-2.0			-1.7
Oct-Nov 2004	-0.7	-0.7	0.7	-0.8	2.3	1.1	-1.2	-1.7			-0.4
Feb-Mar 2005	1.3	1.9	1.4	5.0	-0.1	-1.1	-1.3	6.9			1.1
April-May 2005	-1.2	-4.0	-4.7	-5.2	-4.6	-1.8	1.6	-2.7			-2.2
Oct-Nov 2005	0.7	1.9	-0.3	-1.9	1.7	-1.0	-2.3	2.2			1.0
Feb-Mar 2006	0.4	0.6	-3.2	8.5	-1.7	0.0	-1.1	4.5			0.3
April-May 2006	-3.6	-1.8	-6.4	-17.2	-4.9	-1.6	-4.3	-8.7	-0.7		-1.0
Oct-Nov 2006	2.5	0.6	7.5	16.4	4.3	3.0	3.3	-0.5	1.6		0.3
Feb-Mar 2007	-0.4	1.2	-2.6	8.5	-1.4	-0.6	0.2	0.2	4.9	2.3	0.7
April-May 2007	-1.5	-0.5	-0.9	-5.7	-0.5	-1.1	-1.0	-1.3	-1.0	-0.8	-0.3
Oct-Nov 2007	-1.1	-0.7	-2.1	-4.6	-1.6	-0.1	-0.2	-1.8	-1.6	0.5	-0.4
Feb-Mar 2008	2.1	2.1	-4.7	-1.7	-3.5	-1.1	0.9	-3.5	1.9	0.2	1.1
April-May 2008	-0.6	-1.9	12.7	13.8	5.8	1.0	2.2	4.5	-0.3	3.0	-1.0
Oct-Nov 2008	0.6	-2.1	-9.5	-23.7	0.2	-1.5	-4.2	-6.3	-4.4	-3.4	-1.1
Feb-Mar 2009	-0.3	4.0	0.2	19.1	-1.6	2.2	0.2	4.7	5.6	5.1	2.1
April-May 2009	-0.5	-1.8	-1.4	-15.0	0.4	-2.9	-2.9	-2.3	-3.5	-2.0	-1.0
Oct-Nov 2009	0.8	0.7	0.8	-4.5	0.1	4.7	-2.6	-4.2	-0.1	0.1	0.4
Feb-Mar 2010	-2.9	0.1	-4.7	0.5	-3.7	0.7	2.4	-1.1	-1.1	-1.0	0.0
April-May 2010	3.9	-3.2	2.0	6.0	2.1	1.7	-1.1	1.9	0.8	2.4	-1.8
Oct-Nov 2010	-3.9	1.1	-4.8	-15.9	-4.7	-3.5	-3.4	-4.4	-1.3	-2.2	0.6
Feb-Mar 2011	2.9	3.1	3.0	9.1	2.5	-0.6	4.1	2.7	0.3	1.5	1.7
April-May 2011	0.9	-2.9	3.3	-6.1	3.9	2.1	-4.3	-2.6	0.7	-1.9	-1.5

Oct-Nov 2011	-2.1	0.3	-3.7	-0.1	-4.3	0.4	0.4	0.6	-0.8	-1.3	0.2
Feb-Mar 2012	1.9	3.1	0.6	2.7	-3.6	0.1	4.5	0.8	-1.5	-1.3	1.7
April-May 2012	-0.8	-1.6	-1.4	-9.9	0.7	-1.8	-6.6	-1.6	-0.2	0.6	-0.9
Oct-Nov 2012	-1.2	-0.0	3.2	-0.9	0.7	-6.0	1.1	1.9	2.7	0.5	-0.0
Feb-Mar 2013	3.5	3.2	1.3	9.4	2.6	1.1	3.0	2.3	-0.7	1.5	1.7
April-May 2013	0.5	-4.6	0.3	-8.0	-1.1	-1.7	-2.9	0.3	-1.0	-0.3	-2.5
Oct-Nov 2013	-3.6	-1.9	1.7	-4.0	1.8	-2.4	-1.5	-0.6	-0.4	0.0	-1.0
Feb-Mar 2014	1.9	5.0	-3.4	10.4	-2.9	1.5	4.2	3.3	1.6	0.1	2.8
April-May 2014	-1.3	-3.8	2.2	-5.5	0.6	1.7	-3.5	-3.2	-1.4	0.4	-2.0
Oct-Nov 2014	0.9	0.8	2.0	1.1	-0.2	-5.0	3.1	-1.3	2.0	2.3	0.5
Feb-Mar 2015	-0.1	2.4	-4.4	-31.6	-1.3	2.5	-23.7	1.5	-12.3	-1.1	1.3
April-May 2015	-1.1	-3.8	1.8	3.3	0.5	2.1		-0.6		1.8	-2.1
Oct-Nov 2015	0.2	0.6	3.2	0.5	1.4	-1.2		1.9		0.6	0.3
Feb-Mar 2016	0.0	2.6	-2.2	-12.4	-0.2	-4.2		-4.3		-2.0	1.4
April-May 2016	-2.6	-2.0	-3.8	-2.6	-0.9	0.2		-1.6		-1.9	-1.1
Oct-Nov 2016	-0.3	-2.7	1.6	1.8	0.2	0.6		1.4		0.2	-1.5
Feb-Mar 2017	-3.2	-0.7	-3.7	-1.2	-2.1	0.2		-0.2		-2.0	-0.5
April-May 2017	-1.0	-1.9	0.7	-1.7	-0.6	0.6		-1.0		-0.4	-1.0
Oct-Nov 2017	1.2	0.5	12.0	3.7	11.7	0.2		-3.4		6.9	0.3

APPENDIX 2. SELECTION OF DATES FOR THE CONTENT ANALYSIS

2012

- **January 18:** Meeting of the Fiscal and Financial Policy Council in which Montoro is committed to guaranteeing liquidity.
- **February 2:** First meeting between Rajoy and Mas in La Moncloa.
- **March 7:** Meeting of the Council of Fiscal and Financial Policy, in which Montoro sets new targets for the autonomic deficit and Catalonia disavows them.
- **March 13:** The Catalan government presents the calculation of fiscal balances, which places the fiscal deficit at 8% of GDP.
- **April 4:** The General State Budgets are presented, and the Catalan government complains that it does not include the debt they claim.
- **May 18:** Meeting of the Fiscal and Financial Policy Council in which Montoro approves the adjustment plans of all the communities except Asturias.
- **July 25:** Catalonia requests the Regional Liquidity Fund.
- **July 26:** The Catalan Parliament approves the petition for the fiscal pact.
- **September 12:** First mass demonstration of the Catalan National Day.
- **September 13:** Statement by Artur Mas two days after the March of the Day
- **September 19:** Speech of the king about the process: "do not chase chimeras"
- **September 21:** Meeting of Rajoy and Mas in La Moncloa to discuss the fiscal pact.
- **September 26:** Mas announces early elections on November 25.
- **November 26:** Day after the 25N election.
- **December 20:** Mas and Junqueras sign an investing agreement.

2013

- **January 24:** The Catalan Parliament approves the sovereignty declaration.
- **February 1:** Meeting between Mas and the Spanish king.
- **February 27:** The PSC votes divided from the PSOE about the right to decide in the Congress.
- **March 6:** The chief prosecutor of Catalonia resigns as a result of statements about the right to decide.
- **March 28:** A meeting between Rajoy and Mas revealed.
- **May 9:** The Constitutional Court suspends the sovereignty declaration of Parliament.
- **May 22:** The Catalan government updates the fiscal balances.
- **June 27:** The National Agreement for the Right to Decide is convened.
- **September 7:** A meeting between Mas and Rajoy on the eve of the Catalan National Day.
- **September 12:** New massive Catalan National Day with the human chain.
- **September 13:** Reactions of the Spanish government the day after the Catalan National Day.
- **September 17:** Brussels pronounces on Catalonia.
- **October 18:** Mas stands De Santamaría up in an event of Foment del Treball.
- **October 26:** Rubalcaba and Navarro meet with Mas in the Palau de la Generalitat.
- **December 13:** Pro-referendum parties agree on the date and question of the consultation.

2014

- **January 17:** The Catalan Parliament requests authorization for a consultation to the Spanish Congress.
- **February 28:** First debate in the Spanish Congress about the Catalan consultation.
- **March 26:** A sentence of the Constitutional Court overrules the sovereignty declaration of the Catalan Parliament.
- **April 9:** The Spanish Congress rejects the consultation request of the Catalan Parliament.
- **June 13:** The Catalan government updates the fiscal balance.
- **July 19:** Merkel supports Rajoy in a negative response to Mas's demands.
- **July 24:** The Ministry of Finance publishes another fiscal balance.
- **July 31:** Meeting between Rajoy and Mas in La Moncloa.
- **September 12:** New mass demonstration of the Catalan National Day in Barcelona.
- **September 20:** The Catalan Parliament approves the law of consultations.
- **September 28:** Mas signs the decree that call for the November 9th consultation.
- **November 10:** Two million people participate in the 9N.
- **November 11:** Rajoy leaves the 9N into the hands of the prosecutor.
- **November 12:** Mas will be prosecuted for the 9N and will be request the disqualification.
- **December 23:** The Superior Court admits the proceedings against Artur Mas for the 9N.

2015

- **January 15:** Mas announces early elections on September 27th.
- **February 26:** The Constitutional Court overrules the call for the 9N consultation.
- **July 14:** CDC and ERC agree an electoral coalition for the 27S election.
- **July 18:** Mas meets with the Spanish king.
- **August 4:** Mas signs the 27S election decree.
- **September 2:** The PP announces a reform of the Constitutional Court so that it can disqualify.
- **September 12:** New massive Catalan National Day and the first day of the 27S campaign.
- **September 16:** Obama defends a united Spain in a meeting with the Spanish king.
- **September 19:** The banks take position against the independence.
- **September 28:** The pro-independence coalition wins the 27S election.
- **September 29:** Reactions two days after the 27-S election.
- **October 16:** Mas declares to the judge of the Superior Court that investigates the 9N.
- **October 29:** Meeting of Rajoy and Sánchez in La Moncloa about Catalonia.
- **November 5:** Catalan unionist leaders present an appeal to the Constitutional Court.
- **November 10:** The Catalan Parliament approves a resolution of rupture.

APPENDIX 3. CONTENT ANALYSIS' CODEBOOK

BLOCK 1. POSITION AND DIMENSION

1. Number of whole pages/whole minutes devoted to the subject. (numeral)
2. Is the subject present in the front page/the summary? Yes/No
3. Is the subject the main headline of the newspaper/news program?
Yes/No
4. How many pictures / statements on the subject there are? (numeral)

BLOCK 2. ANALYSIS ON THE MAIN HEADLINE

5. Is the main headline factual or interpretative? Factual/interpretative
6. Who is the subject of the headline? Catalan actors, institutions or initiatives / Spanish actors, institutions or initiatives / Both of them
7. Is the subject personal, institutional or abstract? Personal / Institutional / Abstract
8. Which is the tone associated to the subject? Positive / Negative / Unnoticeable / Mixed
9. Who is the object / 2nd subject (if there is) of the headline? Catalan actors, institutions or initiatives / Spanish actors, institutions or initiatives / Both of them
10. Is the object / 2nd subject (if there is) personal, institutional or abstract?
Personal / Institutional / Abstract
11. Which is the tone associated to the object / 2nd subject (if there is)?
Positive / Negative / Unnoticeable / Mixed

BLOCK 3. CONFLICT FRAME

12. Does the story mention two or more sides of a problem or issue? Yes/No
13. Does the story mention any controversy or disagreement? Yes/No
14. Does the story contain reproaching, blaming or personal attacks? Yes/No

BLOCK 4. STRATEGIC FRAME

15. Does the story mention the presentation and style of how a political actor or an institution handles the subject? Yes/No
16. Does the story mention that an action of a political actor or institution was taken in order to stabilize, consolidate or enhance his/her/its position or to make him/her/it look better in public opinion? Yes/No
17. Does the story use one or more metaphors from the language of games, sport and/or war? Yes/No

BLOCK 5. RIGHT TO DECIDE FRAME

18. Does the story contain any reference to the 'right to decide', the 'popular vote', 'democracy', 'a referendum' or a 'consultation' as a mechanism for political resolution? Yes/No
19. Does the story contain references to a massive demand from the citizenship or a popular support to politicians or institutions to take some actions? Yes/No
20. Does the story contain references to a situation of mistreatment or discrimination towards Catalan people, their culture, their taxes or their institutions? Yes/No
21. Does the story contain references to a horizon of Catalonia as an independent state with a positive view? Yes/No

BLOCK 6. FRAME ESPECÍFIC 2: UNITAT D'ESPANYA

22. Does the story contain references to legal or constitutional constraints to particular political actions? Yes/No
23. Does the story contain references to the risks of social confrontation, division or breakup derived from particular political action? Yes/No
24. Does the story contain references to a situation of manipulation or machination of the Catalan people by their institutions? Yes/No
25. Does the story contain references to the financial dependence of Catalonia on Spain or to a nonviable future of a Catalan independent state? Yes/No

APPENDIX 4. CONTENT ANALYSIS' RESULTS

There are the results from the content analysis by outlets and media systems.

Block 1. Position and dimension

1. Units analyzed

TOTAL UNITS	680
La Vanguardia	59
El Periódico	60
El Punt Avui	60
El País	59
TV3	56
Antena 3	56
Telecinco	53
TVE	57
RAC1	58
Catalunya Ràdio	59
SER	51
COPE	52
Catalan system	352
Spanish system	328

2. Average of pages / minutes reporting the topic

Catalunya Ràdio	17
COPE	16
RAC1	14
TV3	10
El Punt Avui	8
TVE	5
Antena 3	5
El Periódico	5
SER	5
La Vanguardia	4
Telecinco	4
El País	3
Catalan system	9.62
Spanish system	6.41

3. Units where the topic is salient as a top story (in the front page / news overview) and it is the opening story

	Top story	Opening story
TOTAL	624	465
Catalunya Ràdio	59	52
COPE	57	46
RAC1	60	51
TV3	53	38
El Punt Avui	54	48
TVE	51	30
Antena 3	41	20
El Periódico	51	27
SER	49	43
La Vanguardia	57	52
Telecinco	47	33
El País	45	25
Catalan system	336	292
Spanish system	288	173

4. Average number of photos (in papers) / statements (in radio and TV) about the topic per story

Catalunya Ràdio	18
El Punt Avui	17
TV3	13
RAC1	12
La Vanguardia	9
TVE	9
Telecinco	8
El Periódico	8
Antena 3	7
SER	6
El País	5
COPE	5
Catalan system	12.78
Spanish system	6.86

Block 2. Analysis on the main headline

5. Use of a main headline factual or interpretative to refer to the topic (in absolute terms and percentage)

	Interpretative	%	Factual	%
TOTAL UNITATS	132	19.47%	546	80.53%
La Vanguardia	13	22.03%	46	77.97%
El Periódico	27	45.00%	33	55.00%
El Punt Avui	29	48.33%	31	51.67%
El País	3	5.08%	56	94.92%
TV3	1	1.79%	55	98.21%
Antena 3	7	12.50%	49	87.50%
Telecinco	6	11.76%	45	88.24%
TVE	0	0.00%	57	100.00%
RAC1	14	24.14%	44	75.86%
Catalunya Ràdio	6	10.17%	53	89.83%
SER	14	27.45%	37	72.55%
COPE	12	23.08%	40	76.92%
Catalan system	90	25.57%	262	74.43%
Spanish system	42	12.88%	284	87.12%

6. References to Catalan and Spanish subjects and objects in the main headline and tone by system (in absolute terms)

CATALAN SUBJECTS OR OBJECTS					
		Positive	Negative	Mixed	Unnoticeable
Spanish system	Personal	16	71	2	40
	Institutional	13	35	0	21
	Abstract	17	33	3	22
Catalan system	Personal	45	34	7	39
	Institutional	31	18	2	28
	Abstract	38	24	2	39
SPANISH SUBJECTS OR OBJECTS					
		Positive	Negative	Mixed	Unnoticeable
Spanish system	Personal	23	14	3	21
	Institutional	13	22	2	32
	Abstract	4	33	3	22
Catalan system	Personal	6	30	3	27
	Institutional	10	62	1	26
	Abstract	1	24	2	39

7. Tone applied to Catalan and Spanish subjects and objects in the main headline by system (%)

		Positive	Negative	Mixed	Unnoticeable
Catalan system	Catalan	37.1%	24.8%	3.6%	34.5%
	Spanish	9.1%	54.8%	2.7%	33.3%
Spanish system	Catalan	16.7%	51.3%	1.8%	30.2%
	Spanish	26.1%	28.1%	3.3%	42.5%

8. Tone applied to Catalan and Spanish subjects and objects in the main headline (abs.)

		Positive	Negative	Mixed	Unnoticeable
La Vanguardia	Catalan	21	19	1	11
	Spanish	4	17	0	10
El Periódico	Catalan	17	8	3	19
	Spanish	5	20	2	5
El Punt Avui	Catalan	24	9	4	12
	Spanish	2	21	0	4
El País	Catalan	10	22	4	8
	Spanish	6	14	2	4
TV3	Catalan	20	20	1	19
	Spanish	5	13	2	12
Antena 3	Catalan	6	27	0	13
	Spanish	11	6	0	6
Telecinco	Catalan	2	26	0	17
	Spanish	5	6	0	17
TVE	Catalan	10	18	1	15
	Spanish	8	4	1	16
RAC1	Catalan	14	10	1	23
	Spanish	1	17	0	14
Catalunya Ràdio	Catalan	18	10	1	22
	Spanish	0	14	1	17
SER	Catalan	15	21	0	13
	Spanish	7	6	0	11
COPE	Catalan	3	27	0	17
	Spanish	3	7	2	11
Spanish system	Catalan	46	141	5	83
	Spanish	40	43	5	65
Catalan system	Catalan	114	76	11	106
	Spanish	17	102	5	62

9. Tone applied to Catalan and Spanish subjects and objects in the main headline by outlet (%)

		Positive	Negative	Mixed	Unnoticeable
La Vanguardia	Catalan	40.4%	36.5%	1.9%	21.2%
	Spanish	12.9%	54.8%	0.0%	32.3%
El Periódico	Catalan	36.2%	17.0%	6.4%	40.4%
	Spanish	15.6%	62.5%	6.3%	15.6%
El Punt Avui	Catalan	49.0%	18.4%	8.2%	24.5%
	Spanish	7.4%	77.8%	0.0%	14.8%
El País	Catalan	22.7%	50.0%	9.1%	18.2%
	Spanish	23.1%	53.8%	7.7%	15.4%
TV3	Catalan	33.3%	33.3%	1.7%	31.7%
	Spanish	15.6%	40.6%	6.3%	37.5%
Antena 3	Catalan	13.0%	58.7%	0.0%	28.3%
	Spanish	47.8%	26.1%	0.0%	26.1%
Telecinco	Catalan	4.4%	57.8%	0.0%	37.8%
	Spanish	17.9%	21.4%	0.0%	60.7%
TVE	Catalan	22.7%	40.9%	2.3%	34.1%
	Spanish	27.6%	13.8%	3.4%	55.2%
RAC1	Catalan	29.2%	20.8%	2.1%	47.9%
	Spanish	3.1%	53.1%	0.0%	43.8%
Catalunya Ràdio	Catalan	35.3%	19.6%	2.0%	43.1%
	Spanish	0.0%	43.8%	3.1%	53.1%
SER	Catalan	30.6%	42.9%	0.0%	26.5%
	Spanish	29.2%	25.0%	0.0%	45.8%
COPE	Catalan	6.4%	57.4%	0.0%	36.2%
	Spanish	13.0%	30.4%	8.7%	47.8%

Blocks 3 and 4. Conflict frame and strategic frame

10. Presence of conflict frame (in absolute terms and %)

	<i>(abs.)</i>	%
La Vanguardia	59	100.0%
El Periódico	56	100.0%
El Punt Avui	59	100.0%
El País	56	100.0%
TV3	56	98.3%
Antena 3	47	98.1%
Telecinco	46	98.0%
TVE	51	94.9%
RAC1	58	93.3%
Catalunya Ràdio	59	89.5%
SER	50	86.8%
COPE	51	83.9%
Catalan system	347	98.6%
Spanish system	301	91.8%
TOTAL	648	95.3%

11. Presence of strategic frame (in absolute terms and %)

	<i>(abs.)</i>	%
La Vanguardia	49	94.3%
El Periódico	48	83.1%
El Punt Avui	44	82.1%
El País	42	80.4%
TV3	46	80.0%
Antena 3	45	76.3%
Telecinco	50	73.3%
TVE	36	72.4%
RAC1	42	71.2%
Catalunya Ràdio	45	63.2%
SER	32	62.7%
COPE	32	61.5%
Catalan system	274	77.8%
Spanish system	237	72.3%
TOTAL	511	75.1%

12. Presence of conflict and strategic frame's indicators (in absolute terms)

CONFLICT FRAME	Several sides	Disagreement	Personal attacks
Catalan system	344	332	247
Spanish system	293	293	211
STRATEGIC FRAME	Presentation and style	Personal position	War/sports metaphores
Catalan system	219	135	126
Spanish system	193	111	127

13. Presence of conflict and strategic frames (in absolute terms and %)

	Right to decide	%	Rule of law	%
La Vanguardia	52	88.1%	40	67.8%
El Periódico	51	85.0%	43	71.7%
El Punt Avui	49	81.7%	33	55.0%
El País	44	74.6%	42	71.2%
TV3	47	83.9%	38	67.9%
Antena 3	36	64.3%	47	83.9%
Telecinco	33	62.3%	43	81.1%
TVE	40	70.2%	48	84.2%
RAC1	53	91.4%	42	72.4%
Catalunya Ràdio	50	84.7%	42	71.2%
SER	38	74.5%	29	56.9%
COPE	33	63.5%	40	76.9%
Catalan system	302	85.8%	238	67.6%
Spanish system	224	68.3%	249	75.9%

Blocks 5 and 6. Issue-specific frames: “right to decide” and “rule of law”

14. Presence of issue-specific frame’s indicators by media system (abs.)

RIGHT TO DECIDE	Democratic way	Popular support	Mistreatment	Positive independence
Catalan system	212	122	224	37
Spanish system	123	89	143	12

RULE OF LAW	Illegal action	Social division	Manipulation	Inviabile independence
Catalan system	162	114	63	51
Spanish system	176	123	80	79

15. Dominant issue-specific frame (in absolute terms and %)

	Right to decide	%	Rule of law	%	None of them	%
La Vanguardia	21	35.00%	16	26.67%	23	38.33%
El Periódico	30	50.00%	16	26.67%	14	23.33%
El Punt Avui	47	78.33%	6	10.00%	7	11.67%
El País	16	27.12%	23	38.98%	20	33.90%
TV3	35	62.50%	10	17.86%	11	19.64%
Antena 3	3	5.36%	38	67.86%	15	26.79%
Telecinco	5	9.80%	32	62.75%	14	27.45%
TVE	6	10.53%	39	68.42%	12	21.05%
RAC1	40	68.97%	8	13.79%	10	17.24%
Catalunya Ràdio	39	66.10%	8	13.56%	12	20.34%
SER	14	27.45%	21	41.18%	16	31.37%
COPE	5	9.62%	37	71.15%	10	19.23%
Catalan system	212	60.06%	64	18.13%	77	21.81%
Spanish system	49	15.03%	190	58.28%	87	26.69%
TOTAL	261	38.44%	254	37.21%	164	24.15%

APPENDIX 5. CEO RESULTS ABOUT POLARIZATION

1. Main problems identified by respondents 2014-19 (vertical %)

	<i>Spanish system's heavy consumers</i>	<i>Catalan System's heavy consumers</i>	<i>Mixed consumers</i>	<i>Total</i>
<i>Immigration</i>	1.37	0.98	1.37	1.31
<i>Unemployment and job insecurity</i>	29.15	26.26	31.05	30.23
<i>Dwelling</i>	0.58	0.75	0.89	0.86
<i>Insecurity</i>	0	0.41	0.7	0.64
<i>Health care</i>	2.7	2.18	3	2.86
<i>Relationship Catalonia-Spain</i>	17.73	24.31	17.09	18.28
<i>Public finances</i>	0.58	3.65	1.46	1.8
<i>Dissatisfaction with politics</i>	19.94	16.73	19.27	18.87
<i>Education, Culture and research</i>	1.98	1.86	1.87	1.87
<i>Lack of infrastructures</i>	0.19	0.35	0.37	0.36
<i>Antisocial behavior and violence</i>	0.48	0.33	0.48	0.46
<i>Functioning of the economy</i>	9.27	10.91	9.47	9.7
<i>Catalan identity crisis</i>	0.55	0.44	0.3	0.32
<i>Tax burden</i>	2.05	0.66	0.92	0.9
<i>Low salaries</i>	0.68	0.14	0.51	0.45
<i>Poor public services</i>	0.39	0.38	0.4	0.4
<i>Better social policies</i>	6.85	3.9	5.27	5.08
<i>Others</i>	2.81	3.29	2.75	2.84
<i>Lack of freedom</i>	0.39	0.46	0.46	0.46
<i>No problem</i>	0	0	0	0
<i>Do not know</i>	1.57	1.13	1.63	1.54
<i>Did not answer</i>	0.73	0.9	0.74	0.77

2. Evolution of the main problems identified by heavy consumers of the Spanish media system 2014-19 (vertical %)

	2014	2015	2016	2017	2018	2019	Average
<i>Immigration</i>	0	2.6	0.85	0	3.38	0	1.37
<i>Unemployment and job insecurity</i>	58.45	33.93	30.77	16.46	19.73	10	29.15
<i>Dwelling</i>	0	0	0	2.99	0	0	0.58
<i>Health care</i>	1.85	2.6	2.56	4.24	2.75	0	2.7
<i>Relationship Catalonia-Spain</i>	1.85	5.76	13.68	27.26	41.17	33.33	17.73
<i>Public finances</i>	0	0	0	2.98	0	0	0.58
<i>Dissatisfaction with politics</i>	14.53	22.54	23.08	17.57	19.95	13.33	19.94
<i>Education, Culture and research</i>	0	1.3	1.71	4.26	2.96	0	1.98
<i>Lack of infrastructures</i>	0	0	0	1	0	0	0.19
<i>Antisocial behaviour and violence</i>	0	0.33	0	1	0	3.33	0.48
<i>Functioning of the economy</i>	16.38	12.08	9.4	5.52	2.74	10	9.27
<i>Catalan identity crisis</i>	0	1.99	0	0	0	0	0.55
<i>Tax burden</i>	1.76	3.9	3.42	0	0	0	2.05
<i>Low salaries</i>	0	0.2	0	1.25	1.37	3.33	0.68
<i>Poor public services</i>	0	0	1.71	0	0	0	0.39
<i>Better social policies</i>	5.18	5.89	7.69	6.98	4.39	16.67	6.85
<i>Others</i>	0	3.62	5.13	2.26	1.56	0	2.81
<i>Lack of freedom</i>	0	0	0	0	0	6.67	0.39
<i>Do not know</i>	0	1.3	0	5.25	0	3.33	1.57
<i>Did not answer</i>	0	1.95	0	1	0	0	0.73

3. Evolution of the main problems identified by heavy consumers of the Spanish media system 2014-19 (vertical %)

	2014	2015	2016	2017	2018	2019	Average
<i>Immigration</i>	1.52	0.83	0.69	1.21	0.5	1.3	0.98
<i>Unemployment and job insecurity</i>	39.69	32.79	31.08	16.79	9.23	8.26	26.26
<i>Dwelling</i>	0	0.46	0.41	1.07	1.52	2.61	0.75
<i>Insecurity</i>	0.11	0.23	0.14	0.76	0.51	1.74	0.41
<i>Health care</i>	2.41	2.41	1.66	1.38	2.22	4.35	2.18
<i>Relationship Catalonia-Spain</i>	14.16	19.62	20.99	32.14	36.47	35.65	24.31
<i>Public finances</i>	1.97	3.38	6.63	4.23	2.29	2.61	3.65
<i>Dissatisfaction with politics</i>	12.54	14.9	12.43	21.41	25.94	15.65	16.73
<i>Education, Culture and research</i>	1.6	1.69	1.24	2.86	2.21	1.74	1.86
<i>Lack of infrastructures</i>	0.06	0.08	0.69	0.77	0.39	0	0.35
<i>Antisocial behaviour and violence</i>	0	0.47	0.28	0.65	0.18	0.43	0.33
<i>Functioning of the economy</i>	19.25	12.99	10.64	6.76	3.97	4.78	10.91
<i>Catalan identity crisis</i>	0.82	0.38	0.14	0.75	0.23	0	0.44
<i>Tax burden</i>	0.12	1.47	1.1	0.15	0	0.43	0.66
<i>Low salaries</i>	0	0.07	0	0.31	0.16	0.87	0.14
<i>Poor public services</i>	0	0.18	0.55	0.46	0.36	1.74	0.38
<i>Better social policies</i>	3.27	3.56	4.42	3.99	4.19	4.78	3.9
<i>Others</i>	2.37	1.95	3.87	1.87	7.68	3.48	3.29
<i>Lack of freedom</i>	0	0	0	0	0	7.83	0.46
<i>Do not know</i>	0.12	0.83	1.1	2.27	1.43	1.74	1.13
<i>Did not answer</i>	0	1.71	1.93	0.15	0.56	0	0.9

4. Evolution of the main problems identified by mixed consumers 2014-19 (vertical %)

	2014	2015	2016	2017	2018	2019	Average
<i>Immigration</i>	0.8	1.24	1.51	1.36	1.62	2.38	1.37
<i>Unemployment and job insecurity</i>	47.77	43.6	33.71	19.99	14.32	13.69	31.05
<i>Dwelling</i>	0.13	0.06	0.51	0.92	2.27	2.98	0.89
<i>Insecurity</i>	0.4	0.54	0.77	0.72	0.65	2.13	0.7
<i>Health care</i>	2.16	2.17	3.27	3.42	3.51	4.93	3
<i>Relationship Catalonia-Spain</i>	9.45	8.6	12.98	24.13	28.85	25.94	17.09
<i>Public finances</i>	0.96	1.35	1.82	1.95	1.13	1.7	1.46
<i>Dissatisfaction with politics</i>	15.86	15.01	17.58	22.66	26.16	18.79	19.27
<i>Education, Culture and research</i>	1.12	1.71	2.47	2.25	1.81	1.79	1.87
<i>Lack of infrastructures</i>	0.09	0.35	0.37	0.64	0.36	0.43	0.37
<i>Antisocial behavior and violence</i>	0.23	0.33	0.28	0.78	0.66	0.85	0.48
<i>Functioning of the economy</i>	14.49	11.54	9.32	8.58	5	4.76	9.47
<i>Catalan identity crisis</i>	0.38	0.26	0.23	0.38	0.19	0.51	0.3
<i>Tax burden</i>	1.2	0.86	1.42	1.14	0.11	0.77	0.92
<i>Low salaries</i>	0.05	0.45	0.31	0.57	1.06	0.68	0.51
<i>Poor public services</i>	0.11	0.38	0.43	0.6	0.31	0.94	0.4
<i>Better social policies</i>	3.21	6.49	5.82	4.41	5.84	5.1	5.27
<i>Others</i>	1.08	2.2	4.83	1.68	4.09	2.3	2.75
<i>Lack of freedom</i>	0	0	0	0	0	7.74	0.46
<i>No problem</i>	0.01	0	0	0	0	0	0
<i>Do not know</i>	0.37	1.28	0.99	3.6	1.84	1.62	1.63
<i>Did not answer</i>	0.15	1.6	1.39	0.25	0.24	0	0.74

5. Political and economic confidence in the future of the Spanish media heavy consumers 2014-19 (vertical %)

	2014	2015	2016	2017	2018	2019	Average
Politics within a year...							
<i>Will improve</i>	10.48	34.88	15.97	16.48	34.17	20	23.48
<i>Will be the same</i>	34.3	27.08	42.02	30.2	18.59	33.33	30.96
<i>Will get worse</i>	50.42	26.38	31.09	37.11	38.01	33.33	34.17
<i>Do not know</i>	4.79	11.31	10.92	16.22	7.79	13.33	11.1
<i>Did not answer</i>	0	0.35	0	0	1.43	0	0.3
Economy within a year...							
<i>Will improve</i>	22.7	26.88	15.13	19.17	26.4	26.67	22.22
<i>Will be the same</i>	45.05	42.56	38.66	28.99	27.18	33.33	36.62
<i>Will get worse</i>	21.72	17.71	33.61	40.82	39.8	30	30.02
<i>Do not know</i>	10.53	12.85	11.76	11.02	6.62	10	10.96
<i>Did not answer</i>	0	0	0.84	0	0	0	0.19

6. Political and economic confidence in the future of the Catalan media heavy consumers 2014-19 (vertical %)

	2014	2015	2016	2017	2018	2019	Average
<i>Politics within a year...</i>							
<i>Will improve</i>	43.6	54.07	48.21	45.03	49.1	33.91	47.62
<i>Will be the same</i>	26.08	24.64	31.87	22.62	23.27	27.47	25.86
<i>Will get worse</i>	13.27	7.18	9.89	14.41	12.69	19.31	11.54
<i>Do not know</i>	16.98	13.65	9.62	17.79	14.95	18.88	14.72
<i>Did not answer</i>	0.08	0.46	0.41	0.15	0	0.43	0.26
<i>Economy within a year...</i>							
<i>Will improve</i>	32.29	45.24	35.03	34.67	39.05	27.47	37.23
<i>Will be the same</i>	37.83	34.62	39.84	27.46	33.9	35.62	34.92
<i>Will get worse</i>	16.09	8.95	13.05	18.14	12.08	16.31	13.47
<i>Do not know</i>	13.79	11	11.54	19.73	14.81	20.6	14.21
<i>Did not answer</i>	0	0.18	0.55	0	0.16	0	0.17

7. Political and economic confidence in the future of the mixed consumers 2014-19 (vertical %)

	2014	2015	2016	2017	2018	2019	Average
<i>Politics within a year...</i>							
<i>Will improve</i>	26.01	34.35	27.7	29.85	37.21	31.29	31.4
<i>Will be the same</i>	37.44	34.06	37.72	30.4	27.07	27.89	32.89
<i>Will get worse</i>	24.87	16.94	20.31	23.46	19.59	24.33	20.91
<i>Do not know</i>	11.55	14.51	14.04	16.04	15.91	16.41	14.62
<i>Did not answer</i>	0.13	0.13	0.22	0.25	0.21	0.08	0.18
<i>Economy within a year...</i>							
<i>Will improve</i>	24.94	31.47	24.94	27.72	29.4	24.25	27.78
<i>Will be the same</i>	43.57	40.94	39.8	29.5	33.46	32.09	37.13
<i>Will get worse</i>	22.12	13.99	20.64	25.93	20.58	24.66	20.5
<i>Do not know</i>	9.23	13.51	14.37	16.81	16.47	19	14.48
<i>Did not answer</i>	0.14	0.09	0.25	0.05	0.1	0	0.12

8. Proportion of pro-independence and anti-independence party voters among the top newspapers' audience in 2010, 2014 and 2018 (vert %)

	2010	2014	2018
El País			
Pro-independence	10%	20%	15%
Others	29%	52%	47%
Anti-independence	44%	28%	38%
<i>Difference pro-anti</i>	<i>33.72</i>	<i>8.26</i>	<i>23.64</i>
La Vanguardia (Catalan)			
Pro-independence	36%	69%	62%
Others	20%	25%	28%
Anti-independence	23%	6%	10%
<i>Difference pro-anti</i>	<i>13.76</i>	<i>63.29</i>	<i>52.24</i>
La Vanguardia (Spanish)			
Pro-independence	36%	44%	18%
Others	20%	40%	40%
Anti-independence	23%	16%	41%
<i>Difference pro-anti</i>	<i>13.76</i>	<i>28.17</i>	<i>22.92</i>
El Periódico (Catalan)			
Pro-independence	37%	57%	55%
Others	19%	37%	32%
Anti-independence	25%	6%	14%
<i>Difference pro-anti</i>	<i>11.89</i>	<i>51.54</i>	<i>41.05</i>
El Periódico (Spanish)			
Pro-independence	18%	23%	17%
Others	22%	56%	44%
Anti-independence	44%	21%	39%
<i>Difference pro-anti</i>	<i>26.02</i>	<i>2.51</i>	<i>21.36</i>
El Mundo			
Pro-independence	15%	4%	0%
Others	21%	24%	50%
Anti-independence	48%	72%	50%
<i>Difference pro-anti</i>	<i>33.08</i>	<i>68.28</i>	<i>49.73</i>
Avui / El Punt Avui			
Pro-independence	66%	78%	86%
Others	12%	21%	9%
Anti-independence	7%	1%	5%
<i>Difference pro-anti</i>	<i>58.85</i>	<i>76.24</i>	<i>81.33</i>

9. Proportion of pro-independence and anti-independence party voters among the top radio stations' audience in 2010, 2014 and 2018 (vertical %)

	2010	2014	2018
Catalunya Ràdio			
<i>Pro-independence</i>	43%	72%	76%
<i>Others</i>	40%	23%	19%
<i>Anti-independence</i>	17%	5%	6%
<i>Difference pro-anti</i>	<i>25.08</i>	<i>66.76</i>	<i>70.02</i>
SER			
<i>Pro-independence</i>	12%	18%	14%
<i>Others</i>	36%	49%	46%
<i>Anti-independence</i>	52%	33%	40%
<i>Difference pro-anti</i>	<i>40.23</i>	<i>14.86</i>	<i>25.65</i>
COPE			
<i>Pro-independence</i>	23%	15%	6%
<i>Others</i>	23%	36%	33%
<i>Anti-independence</i>	54%	49%	60%
<i>Difference pro-anti</i>	<i>31.39</i>	<i>33.83</i>	<i>54.05</i>
Onda Cero			
<i>Pro-independence</i>	17%	20%	11%
<i>Others</i>	42%	22%	33%
<i>Anti-independence</i>	41%	58%	56%
<i>Difference pro-anti</i>	<i>23.35</i>	<i>37.67</i>	<i>45.22</i>
RNE			
<i>Pro-independence</i>	11%	32%	7%
<i>Others</i>	36%	47%	38%
<i>Anti-independence</i>	53%	22%	55%
<i>Difference pro-anti</i>	<i>42.34</i>	<i>9.97</i>	<i>48.32</i>
RAC1			
<i>Pro-independence</i>	51%	76%	77%
<i>Others</i>	34%	20%	19%
<i>Anti-independence</i>	15%	4%	5%
<i>Difference pro-anti</i>	<i>36.01</i>	<i>71.82</i>	<i>71.86</i>

10. Proportion of pro-independence and anti-independence party voters among the top TV channels' audience in 2010, 2014 and 2018 (vertical %)

	2010	2014	2018
TVE			
<i>Pro-independence</i>	18%	12%	4%
<i>Others</i>	49%	57%	45%
<i>Anti-independence</i>	33%	31%	51%
<i>Difference pro-anti</i>	14.84	19.7	46.93
TV3			
<i>Pro-independence</i>	54%	67%	73%
<i>Others</i>	35%	27%	21%
<i>Anti-independence</i>	11%	5%	6%
<i>Difference pro-anti</i>	42.96	61.62	67.31
Telecinco			
<i>Pro-independence</i>	15%	15%	9%
<i>Others</i>	58%	59%	48%
<i>Anti-independence</i>	27%	26%	43%
<i>Difference pro-anti</i>	11.84	11.5	34.29
Antena 3			
<i>Pro-independence</i>	24%	14%	8%
<i>Others</i>	46%	55%	51%
<i>Anti-independence</i>	29%	31%	41%
<i>Difference pro-anti</i>	5.13	16.51	32.51
La Sexta			
<i>Pro-independence</i>	17%	21%	15%
<i>Others</i>	48%	51%	52%
<i>Anti-independence</i>	35%	27%	33%
<i>Difference pro-anti</i>	18.5	6.37	18.38

11. Territorial preference in the relationship between Catalonia and Spain among outlets' audience 2010 (vertical %)

	<i>La Razón</i>	<i>El Mundo</i>	<i>ABC</i>	<i>Antena 3</i>	<i>Avui</i>	<i>Onda Cero</i>	<i>Telecinco</i>	<i>La Sexta</i>	<i>TVE</i>
<i>Region</i>	20.55	16.58	18.88	14.17	1.36	14.16	15.18	2.07	13.79
<i>Autonomy</i>	79.45	74.45	73.7	60.43	11.09	59.68	59.31	58.71	55.34
<i>Federal state</i>	0	5.64	7.42	16.09	27.36	21	12.79	27.08	22.96
<i>Independence</i>	0	3.34	0	9.31	60.19	5.16	12.71	12.14	7.91

	<i>COPE</i>	<i>El País</i>	<i>El Periódico (Sp.)</i>	<i>SER</i>	<i>RNE</i>	<i>RAC 1</i>	<i>El Periódico (Cat)</i>	<i>Catalunya Ràdio</i>	<i>La Vanguardia</i>	<i>TV3</i>
<i>Region</i>	37.2	3.7	7.58	4.22	11.11	0.37	2.46	1.67	4.42	2.6
<i>Autonomy</i>	54.71	37.91	49.2	48.28	46.03	13.68	21.44	19.58	34.31	24.65
<i>Federal state</i>	8.1	49.27	33.26	41.93	32.82	45.73	45.27	43.37	39.16	37.74
<i>Independence</i>	0	9.12	9.95	5.56	10.04	40.22	30.83	35.38	22.11	35.01

12. Territorial preference in the relationship between Catalonia and Spain among outlets' audience 2019 (vertical %)

	<i>La Razón</i>	<i>Ara</i>	<i>Catalunya</i> <i>Ràdio</i>	<i>COPE</i>	<i>El Mundo</i>	<i>Onda Cero</i>	<i>TV3</i>	<i>TVE</i>	<i>El Punt</i> <i>Avui</i>	<i>RAC1</i>
<i>Region</i>				17%	25%		1%	18%		
<i>Autonomy</i>	100%	1%	7%	78%	75%	75%	8%	60%	16%	6%
<i>Federal state</i>		11%	13%	4%		17%	19%	18%	12%	25%
<i>Independence</i>		88%	80%			8%	72%	4%	72%	69%

	<i>ABC</i>	<i>RNE</i>	<i>Telecinco</i>	<i>Antena 3</i>	<i>La</i> <i>Vanguardia</i> <i>(Cat)</i>	<i>El País</i>	<i>SER</i>	<i>El</i> <i>Periódico</i> <i>(Cat)</i>	<i>La Sexta</i>	<i>La</i> <i>Vanguardia</i> <i>(Sp.)</i>	<i>El</i> <i>Periódico</i> <i>(Sp.)</i>
<i>Region</i>		10%	20%	14%	3%	5%	9%		7%	11%	8%
<i>Autonomy</i>	67%	62%	61%	57%	7%	51%	36%	15%	41%	39%	35%
<i>Federal state</i>	33%	29%	10%	17%	34%	34%	49%	38%	42%	31%	38%
<i>Independence</i>			8%	12%	55%	10%	7%	48%	10%	19%	18%

13. Territorial preference index (population mean = 0)

YEAR	MEDIA SYSTEM	OUTLET	TERRITORIAL PREFERENCE INDEX	AUDIENCE (%)
2010	Spanish	COPE	-1.02	2.3
	Spanish	La Razón	-0.94	0.5
	Spanish	ABC	-0.85	0.2
	Spanish	El Mundo	-0.77	2.0
	Spanish	Onda Cero	-0.56	7.0
	Spanish	Antena 3	-0.53	9.0
	Spanish	Telecinco	-0.50	7.0
	Spanish	TVE	-0.48	13.4
	Spanish	RNE	-0.31	4.6
	Catalan	El Periódico (Sp)	-0.28	11.8
	Spanish	SER	-0.24	17.8
	Spanish	La Sexta	-0.24	1.3
	Spanish	El País	-0.09	9.2
	Catalan	La Vanguardia	0.06	34.6
	Catalan	El Periódico (Cat)	0.31	17.5
	Catalan	TV3	0.32	54.6
	Catalan	Catalunya Ràdio	0.39	23.7
	Catalan	RAC1	0.53	20.6
	Catalan	Avui	0.73	5.6
	2019	Spanish	El Mundo	-1.27
Spanish		COPE	-1.15	4.8
Spanish		La Razón	-1.02	0.5
Spanish		Telecinco	-0.96	9.7
Spanish		TVE	-0.93	9.2
Spanish		RNE	-0.83	3.8
Spanish		Antena 3	-0.74	10.8
Spanish		Onda Cero	-0.68	3.1
Spanish		ABC	-0.68	0.2
Spanish		El País	-0.53	6.4
Spanish		SER	-0.48	10.7
Spanish		La Sexta	-0.46	10.7
Catalan		La Vanguardia (Sp.)	-0.44	12.5
Catalan		El Periódico (Sp.)	-0.34	11.5
Catalan		El Periódico (Cat.)	0.32	7.3
Catalan		La Vanguardia (Cat.)	0.40	17.5
Catalan		El Punt Avui	0.54	5.2
Catalan		TV3	0.61	45.2
Catalan		RAC1	0.62	33.4
Catalan		Catalunya Ràdio	0.71	25.5
Catalan	Ara	0.85	11.1	

The index is based on the conversion of the qualitative variable “territorial preference” into a continuous variable (responses: a region = 1; an autonomous community = 2; a state within a federal Spain = 3; independence = 4) and the location of every outlet’s audience mean on an axis where 0 is the population mean. “Audience” is based on the answers of preferred TV/radio/newspaper to get informed.