

Rethinking Hallin and Mancini Beyond the West: An Analysis of Media Systems in Central and Eastern Europe

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This study aimed to validate and extend Hallin and Mancini's framework of comparison to discriminate empirical types of media systems in Central and Eastern Europe. We tested and complemented their original dimensions by using aggregated data from 11 countries (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia). Our study shows the strength of political parallelism and public service broadcasting as variables for comparison. It also found that press freedom and foreign ownership point to significant differences between media systems in the region. Finally, a cluster analysis revealed the existence of three groups of media systems and provides empirical support for the assertion that there is no unique type of East-Central European media system.

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Since Hallin and Mancini published their seminal work *Comparing Media Systems: Three Models of Media and Politics* in 2004, a few attempts have been made to empirically test their standardized measures and models in several Western countries (Brüggemann, Engesser, Büchel, Humprecht, & Castro, 2014) and to use their original dimensions to analyze particular cases among East-Central European media systems (Dobek-Ostrowska, 2012; Jakubowicz & Sükösd, 2008). These studies highlight the need to provide a robust array of variables that can combine the qualitative insight provided by previous case studies in “the East” with a thorough empirical analysis of cross-national data in the region.

Hallin and Mancini’s (2004) book offered an agreed-on framework of comparison for media systems of Western Europe, Canada, and the United States. Relying on a thorough historical review, this book combined several dimensions—labeled “media markets,” “political parallelism,” “journalistic professionalism,” and “role of the state”—that yielded three different and well-known models of media systems. The “polarized pluralist model” gathered European Mediterranean countries with highly politicized media and low journalistic professionalism; the “democratic corporatist model” included Northern European countries with welfare state traditions, strong public service broadcasters, and partisan media along identity groups; and the “liberal model,” which is predominant in Anglo-Saxon countries, was characterized by a weak role of the state and strong objective and neutral journalism.

These models and the dimensions along which they are built have since been used extensively as a theoretical framework for case selection in comparative studies. However, it was only recently that they were tested by means of data and empirical analysis. Drawing on a multiplicity of methods of data collection, Brüggemann et al. (2014) “measured” media systems in “the West” and conducted an exhaustive analysis of experts’ interviews, surveys, yearbooks, documents and reports, and content data. Their results served to validate and refine Hallin and Mancini’s dimensions and found four empirical types of media systems (central, northern, western, and southern), with Northern European countries joining a new type characterized by high press subsidies. A further analysis was able to cross-validate and thus strengthen the Brüggemann et al. findings using qualitative comparative analysis (cf. Büchel, Humprecht, Castro-Herrero, Engesser, & Brüggemann, 2016).

In the present study, we go a step further to rethink the Hallin and Mancini (2004) framework of comparison by applying it to Central and Eastern Europe (or CEE). We draw on the operationalization and data sources used by Brüggemann et al. in 2014. We test the tools used by Brüggemann et al. (2014) for the West in the East and adapt their framework to explain the interplay between media and politics in 11 EU countries from CEE. To do so, we rely on further comparative and theoretical approaches for Eastern Europe (Gross, 2004; Hallin & Mancini, 2012a; Jakubowicz, 2008; Peruško, Vozab, & Čuvalo, 2015; Voltmer, 2008, 2013a) that allow us to couple Hallin and Mancini’s original dimensions with new variables that are relevant to the case of CEE. Our analyses show that press freedom and foreign ownership, together with political parallelism and the strength of public service broadcasting (PSB), have a rather high explanatory power and indicate meaningful differences between countries. These dimensions are

finally used to build three types of media systems in the region (eastern, central, and northern media systems).

Approaching Media Systems in the East

To date, several studies have applied Hallin and Mancini's framework to countries beyond the West (e.g., Dobek-Ostrowska & Glowacki, 2008; Trpevska & Micevski, 2014). The most remarkable of these contributions is a follow-up edition by the authors themselves (Hallin & Mancini, 2012b). This publication represents a valuable compendium of case studies, among which chapters on Baltic (Balčytienė, 2012) and Polish media systems (Dobek-Ostrowska, 2012) can be found. Both Dobek-Ostrowska and Balčytienė identified elements of the polarized pluralist media system model (Hallin & Mancini, 2004) among their objects of study. On the one hand, Balčytienė concluded that journalism underwent a late professionalization in the Baltics, as in the polarized pluralist model. However, she also found elements of the liberal model (a laissez-faire media policy and strong tabloid and commercial media) and of the corporatist model (a tighter regulation of the media in regard to preserving the public interest and national identity). On the other hand, Dobek-Ostrowska embedded Poland in the polarized-pluralist ideal type. This is evidenced, the author argued, by its high levels of state intervention in public service, strong tradition of advocacy journalism, and strong media politicization.

Dobek-Ostrowska's and, to a lesser extent, Balčytienė's identifications of CEE countries with Hallin and Mancini's (2004) polarized-pluralist model are no exceptions. Other authors have considered the postcommunist media systems in CEE as shifting toward that model. CEE media systems have been compared with Italy, where PSB has had institutionalized links to political parties (Splichal, 1994) and the press is still broadly commercialized (Voltmer, 2008). Hallin and Mancini argued that CEE media systems resemble those of Greece, Spain, and Portugal rather than that of Italy, with the latter being a more long-lasting democracy whose parties have stronger societal alliances and consensual politics (Hallin & Mancini, 2012a, p. 19). CEE media systems have also been compared with those in Southern Europe based on low newspaper circulation and low quality of their PSB (Peruško, Vozab, & Čuvalo, 2013).

All of these case studies and theoretical approaches tell us that we can describe CEE media systems' development and prospects by looking at the evolution of European Mediterranean countries starting from the 1970s. However, notwithstanding similar patterns between Eastern and Southern Europe, Hallin and Mancini (2012a, p. 18) warned about the encompassing shortcomings and the limits that such an approach can carry on the development of new comparative theory.

One of those shortcomings, as Voltmer (2013a) and Zielonka (2015) put it, is the assumption that emerging media systems in the East will not deviate from Western models. According to Voltmer, media systems development in CEE has gone hand in hand with a particular evolution of their cultural background and political systems and therefore cannot be classified into any of the three models conceptualized by Hallin and Mancini (2004). For example, in CEE, the media inherited certain structural elements of the former communist state media that are resistant to change. The supervisory bodies and

systems that fund public media are still opaque; they are often strictly regulated only on paper and are very dependent on the ruling political parties' interests and goals (Bajomi-Lázár, 2014). Parties have "colonized" the media to channel media resources, such as public subsidies, advertising, and airtime frequencies, to their supporting networks (Bajomi-Lázár, 2014, p. 23). A "business parallelism"—media owners involved in politics and other businesses—has spread across the region (Zielonka, 2015, p. 24), and there are strong links among media moguls, local political elites, and economic investors in Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia (Örnebring, 2012). In addition, a strong advocacy tradition is inherent to journalistic culture in countries such as Bulgaria, Hungary, Romania, or Poland, where a nonpartisan reporting style is not unanimous and objective journalism never fully took over from opinionated journalism (Gross, 2004; Lauk, 2008). Finally, the economic vulnerability of the media due to low advertisement revenues, the lack of a consolidated system of press subsidies, or difficulties in exporting local media products (Zielonka & Mancini, 2011) enhanced media ownership concentration. It also prepared the ground for stronger governmental control, especially over PSB.

Whether one approaches CEE media systems' categorization by scrutinizing similarities to the developments in Western Southern Europe or by investigating CEE under the assumption of its exceptionality, whether it is a matter of "degree rather than kind" or vice versa (Dryzek & Holmes, 2002, p. 256), the question rises regarding the extent to which CEE media systems should be treated as a homogeneous entity. Can we assume that CEE media systems all belong to the polarized-pluralist ideal type? Even if we consider that CEE embodies a new kind of media system not included in Hallin and Mancini's framework, can we adequately describe Eastern Europe with just one model?

This drives us to the core issue that our study addressed: the need for a reconceptualization of Hallin and Mancini's dimensions of comparative analysis that is valid for CEE countries. As Hallin and Mancini (2012a) acknowledge, their analysis

is not intended as a universal framework; it is based on the concrete historical experience of a particular set of nations, and any attempt to extend the analysis beyond that set of cases is likely to require significant modification of the conceptual framework. (p. 15)

Therefore, our study delved first into the dimensions and indicators that Hallin and Mancini used to analyze the West and deductively tested them in 11 CEE countries: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. Second, it considered new variables to inductively account for further relevant idiosyncratic paths in CEE.

Dimensions to Describe Media Systems in the East

Which elements in Hallin and Mancini's (2004) framework can be transferred to the empirical analysis of media systems in CEE? Brüggemann et al. (2014) offer a first benchmark for the West. They operationalized Hallin and Mancini's dimensions by looking at the "inclusiveness of the press market" (whether the press reaches out a broad audience), "political parallelism" (i.e., the extent to which the media

advance political and partisan goals), and “journalistic professionalism” (the extent to which journalists are autonomous and follow distinctive and ethical principles). They further distinguished and measured three different types of state intervention (all of them included as subdimensions in Hallin and Mancini’s dimension role of the state), which were labeled “public broadcasting” (that complements private media), “press subsidies” (that support private media), and “ownership regulation” (that restricts media activity).

Departing from the aforementioned dimensions and subdimensions, in the following, we consider four main distinctive developments of CEE media systems and explore the divergent intensities and paces of such developments across countries as accounted by previous studies (Gross, 2004; Hallin & Mancini, 2012a, 2012b; Jakubowicz, 2008; Voltmer, 2008, 2013a).

Recent Past of Media Censorship and State Control

Former communist states of Bulgaria or Romania saw a much stronger control of the media than Poland, let alone the Baltic countries. Whereas the former countries suffered from political control until the very end of their communist regimes, Poland benefited from a lively civil society (the most conspicuous example of which is the important role of *Solidarnosc* in the democratization of the country) and a strong underground press (or *Samizdat*). In the Baltics, the media may have gained autonomy because of an atmosphere of cultural resistance against past Soviet occupation and press control, which, after the Iron Curtain fell, favored the limitation of party ownership of media (Balčytienė, 2012). From attacks and threats against journalists (see Santana Pereira, 2012, for the Romanian and Bulgarian cases) to self-censorship in newsrooms, the current range and high variance in terms of “media freedom” across the region have their roots in divergent historical backgrounds of media censorship and state control. Smilova and Smilov (2015) further note that, in practice, media freedom has not yet improved in countries with weak mechanisms of law enforcement and widespread informality such as Bulgaria. In spite of media policymaking and laws to protect the freedom of the media, the mimetic transplantation of models in the West to CEE media systems has so far failed, and the political past still has an important weight, especially under certain governments that try to use the media to advance their political goals (Balčytienė, Bajomi-Lázár, Štětka, & Sükösd, 2015). These events make it necessary to tackle the measurement of media freedom across countries with otherwise different trajectories of media censorship.

Citizens’ Political Demobilization and Weak Partisan Alignments

Unlike in democratic corporatist media systems, in which partisanship is linked to traditional organized social groups (Hallin & Mancini, 2004), new EU democracies suffer from weak civil societies (Gross, 2004; Jakubowicz, 2008), higher levels of electoral volatility than Western Europe (van Biezen, 2000; Dassonneville & Hooghe, 2011), and low levels of political mobilization (Tworzecki & Semetko, 2012). As Voltmer (2013b) states, most parties in new democracies have shallow roots with their constituencies (with a few exceptions such as the communist successor party MSZP in Hungary). Low membership and elite-centered machineries are the norm among CEE parties (Mancini, 2015; Zielonka, 2015). Electoral volatility is especially pronounced in countries where alignments along the left–right axis compete with other ideological streams, such as those leaning on the old Russian communism and the new nationalist reformism, as in the Baltic region (Balčytienė, 2012). Although Poland has historically had

a stronger civil society and political opposition than its neighbors, its particularly unstable party system (Tworzecki & Semetko, 2010) also may have played a part in the instability of its citizens' partisan affections. Overall, the low levels of political mobilization and high electoral volatility mirror citizens' weak and changing political preferences and can make the detection and measurement of media's political parallelism (e.g., by assessing partisan preferences of media audiences) particularly challenging.

Rapid Political and Economic Institutionalization

After the fall of its communist regimes, CEE underwent rapid political, social, and economic changes, embracing capitalism, democracy, and human rights in a very short period of time. This made the process of institutionalization and the development of a legal structure uneven, enhancing three relevant trends in the CEE media landscape. First, PSB remained strong and tightly controlled by institutional and political structures inherited from the past, keeping most of its former employees. The public granting of licenses to private TV investors also developed into a politicized and tightly centralized process (Sparks, 2008). Second, CEE press industries became, in contrast, a quickly deregulated territory with the proliferation of small newspapers coming under the control of private investors in the early 1990s. Since then, direct press subsidies seem to be a rare media policy across the CEE region, albeit more opaque and politicized ways of funding private media, such as state advertising, are frequent in countries such as Bulgaria, Romania (Preoteasa & Schwartz, n.d.) and Slovenia (Hrvatini & Petković, 2008). Third, although the progressive entrance of CEE countries into the European Union brought about compliance with its digital media policy, the development of information and communication infrastructures under the supervision of national governments was slow, and the Internet and digital media penetration are still weak compared with those of Western European countries (Peruško et al., 2015). By extension, online news use is low, particularly in countries such as Bulgaria and Romania.

Foreign Ownership of Media Markets

Internationalization and the presence of foreign capital have also been stronger factors in the formation of CEE media systems than in the development of Western European media systems (Hallin & Mancini, 2012a). As Klimkiewicz (2009) notes, the dominance of foreign ownership in the press and, to a lesser extent, in the broadcasting sector has been a structural distinctive feature of CEE media systems relative to other countries in Europe. This makes it relevant to account for how CEE media markets have unfolded, not only in the light of media audience patterns, as we do through the dimension of press market inclusiveness, but also from the perspective of media markets' ownership structures.

During the first years after the twilight of communist regimes, investors gained control over media enterprises at very low costs (Zielonka, 2015), which attracted a high amount of U.S. and EU capital (Peruško & Popović, 2008). Since the 1990s, foreign investors, mainly Western-based transnational media companies, have been "conquering" and shaping media markets across CEE. This trend has progressed at a quicker or slower pace depending on the country. Whereas in the early 1990s, the majority of press media in Hungary was transferred to foreign investors, the privatization of the press in Poland was very closely supervised by the government and foreign ownership within broadcasting was limited. Similarly, in Slovenia, there was an extended restriction on foreign ownership from 1994 until 2001, and media outlets were also

profitable, which most likely explains the lower levels of foreign ownership in the country compared with other CEE markets (Štětka, 2012). Trends in foreign ownership are changing in some countries, however. Whereas Estonia has always been dominated by foreign ownership, in Czech Republic, the shift in media ownership to local business elites as a consequence of the 2008 economic crisis and declining advertising revenues has been one of the most dramatic across the region (Balčytienė et al., 2015, p. 122).

The entrance of foreign ownership had important consequences for CEE media markets. It went hand in hand with an increase in media ownership concentration, which some argue may have led to the instrumentalization, weak journalistic professionalism, and tabloidization of the media content over time in Czech Republic, Slovakia, Hungary, Romania, and Poland (Dobek-Ostrowska & Glowacki, 2008).

In sum, the question rises as to what extent Hallin and Mancini's dimensions can be used to analyze the differences and similarities among young Eastern European media systems and which variables should be operationalized to account for the CEE idiosyncrasies described. We also sought to investigate whether CEE media systems can be embedded into a single model or whether, as in Western democracies, we find important divergences between groups of countries. This led us to formulate the following research questions:

RQ1: How can Hallin and Mancini's framework of comparison be applied and extended to analyze Central and Eastern European media systems?

RQ2: Which typology of media systems best describes CEE?

Method and Data

Analogous to Hallin and Mancini's (2004) approach, we followed the most similar system design to select our cases because we were primarily interested in capturing heterogeneities among otherwise similar media systems (Wirth & Kolb, 2004). CEE media systems belong to transitional countries, the historical conjuncture and rapid social change of which explain why "generalizations regarding media evolution in the region are possible" (Gross, 2004, p. 114). We confine our analysis to only those 11 CEE competitive democracies that belong to the European Union. Due to EU preaccession processes and subsequent membership, CEE countries had to comply with EU common standards and media regulation such as the Audiovisual Media Services Directive. The fact that CEE media systems mirror Western European dual media models speaks to the particular process of "Europeanization" undergone by new EU Eastern countries compared with non-EU members (Dobek-Ostrowska, 2015; Schimmelfennig & Sedelmeier, 2005).

To analyze the aforementioned media systems, we relied on several methods of data collection. We drew on experts' interviews (European Media Systems Survey, 2010; World Values Survey, 2005–2007), surveys (Eurobarometer, 2011), yearbooks (European Audiovisual Observatory, 2011; Freedom House, 2010; World Press Trends compilation, 2010), documents and reports (Hanretty, 2009), and content analysis (European Election Studies, 2009) spanning a period from 2007 to 2011 (see Table A1 in the Appendix).

To analyze our data, we first engaged in a deductive approach by testing the operationalization of Hallin and Mancini's dimensions as in Brüggemann et al. (2014), which consists of four dimensions and three subdimensions. Thus, we analyzed the inclusiveness of the press market, political parallelism, journalistic professionalism, and role of the state dimensions, the last of which was considered a multidimensional category and was disaggregated into public broadcasting, press subsidies, and ownership regulation subdimensions. Similar to Brüggemann et al., we z-standardized and averaged all of the indicators used to measure such dimensions and subdimensions to build indices. For Western Europe, Brüggemann et al. showed that the original framework held acceptable degrees of internal consistency for all indices. However, for CEE, the political parallelism dimension and the press subsidies subdimension had to be modified because the indicators used to measure such dimensions were not correlated sufficiently to assume that they were capturing parts of the same construct (Cronbach's $\alpha < .50$). For political parallelism, the indicator relying on political preferences of each media outlet's audience, namely media-party parallelism, had to be dismissed, and the press subsidies subdimension had to be disaggregated into direct and indirect subsidies (value added tax reductions; see Table 1).

Table 1. Indicators.

Dimension	Indicator	Data source
Press market	Daily newspaper reach Working-class reach Women reach	WPT 2008–2010; WVS, 2005–2007; EB76, 2011; EES, 2009
Political parallelism	Separation of news and commentary Partisan influence and policy advocacy Political orientation of journalists Political bias Public service broadcasting dependence	EES, 2009; EMSS, 2010; Hanretty, 2009
Journalistic professionalism	External autonomy, internal autonomy Professional guidelines, media credibility Public orientation	EMSS, 2010
Public broadcasting	Market share of public TV License fee revenue	EAO, 2011
Ownership regulation	TV regulation, newspaper regulation Cross-media regulation	WPT, 2010
Direct subsidies	Press subsidies	WPT, 2010
Indirect subsidies	Tax reduction	WPT, 2010
Online news use	Information source online	EB76, 2011
Press freedom	Press Freedom Index	FH, 2010
Ownership concentration	C3	Peruško & Popović, 2008
Foreign ownership	Foreign TV owners among top-3 commercial operators	Peruško & Popović, 2008

Note. WPT = World Press Trends compilation; WVS = World Values Survey; EB76 = Eurobarometer; EES = European Election Studies; EMSS = European Media Systems; EAO = European Audiovisual Observatory; FH = Freedom House.

We also considered four new variables (foreign TV share, ownership concentration, press freedom, and online news use) to account for those systemic elements of CEE that may have added to the variance within the region. As advanced in the first section of this article, high foreign media ownership is a trend that influenced CEE media markets and structures in significant ways, one of which may be the concentration of media capital. Therefore, we accounted for the percentage of foreign TV share among the top-three TV market players, as provided by Peruško and Popović (2008), and we used their C3 index, that is, the percentage of audience share of the three leaders in the TV market. We accounted for foreign audience share in the TV market because, according to Klimkiewicz (2009), in the time span considered in our study, the TV market offered more variation across CEE countries than did the print media sector, in which the dominance of foreign and transnational ownership was much more pervasive. Furthermore, as noted by Štětka (2013), as a result of profit declines, there is a consistent pattern across the region of foreign media investors selling their stakes to local businesspeople over the past several years, a process that has been much more prevalent in the press than in the broadcasting sector. In addition, we accounted for differences in press freedom to signal those cases that carried a past of particularly strong and systematic media censorship and state control by means of the Freedom of the Press index by Freedom House (2010). The Freedom House index accounts for political and economic factors that impact news reporting and access to information. Finally, online news use served to assess the extent to which the particularly slow development of information and communication infrastructure in the region may be affecting citizens' use of Web-based news media content. Overall, the resulting framework showed satisfactory levels of internal consistency (Cronbach's $\alpha = .62-.80$; DeVellis, 2003, p. 95; Hair, Anderson, Tatham, & Black, 1998, p. 88). The detailed operationalization of each of the dimensions considered is shown in Table A2 of the Appendix.

To build types of media systems, we reduced the number of parameters (i.e., dimensions/variables) to analyze an otherwise limited number of cases (11 media systems). The low case number prevented us from using principal component analysis. Instead, we used an adaptation of multidimensional scaling called CoPlot. Similar to multidimensional scaling, CoPlot maps the relative commonalities and differences between cases (e.g., countries) as distances onto a two-dimensional space (Borg & Groenen, 1997). However, CoPlot allows cases and variables to be visualized simultaneously by generating a conventional multidimensional scaling map and, in a further step, adding vectors to indicate the relationships between variables. As a goodness-of-fit measure for the overall solution, we used the coefficient of alienation, indicating the relative loss of information caused by the transformation of multidimensional data into two dimensions. Overall, the patterns of relationship shown in CoPlot allowed us to reduce the number of *z*-standardized variables to four main dimensions. Finally, we used these four dimensions to run a hierarchical cluster analysis using Ward's method and applying squared Euclidean distances as a measure of similarity. The analysis yielded three different clusters that were confirmed by conducting a nonhierarchical cluster analysis using another distance matrix: centroid-based *k*-means method (Milligan & Sokol, 1980).

Results

Is Hallin and Mancini's (2004) framework proper to analyze CEE? What dimensions should one consider to discern differences and similarities in the East? Table 1 shows all of the indicators that can describe the differences and similarities between media systems in the region. A series of correlations adds to the validation of Hallin and Mancini's framework in the East and shows how some of the old dimensions based on the Hallin and Mancini framework and new variables applicable to the East are related in meaningful ways. As Hallin and Mancini hypothesized and Brüggemann et al. (2014) confirmed for Western Europe, political parallelism and journalistic professionalism are negatively correlated also in Eastern Europe ($r_s = .68, p < .05$). In addition, we found that the more indirect and direct subsidies a media system has, the stronger its press market is ($r_s = .70, p < .05$, and $r_s = .61, p < .05$)². Unlike Hallin and Mancini, we could not find a significant relationship between political parallelism and most of the subdimensions of the role of the state or between an inclusive press market and highly professional journalism. Nevertheless, we found a positive and significant correlation between professionalism and online news use ($r_s = .71, p < .05$), between online news and press freedom ($r_s = .62, p < .05$), and between press freedom and professionalism ($r_s = .62, p < .05$). Finally, parallelism and freedom of the press were negatively correlated ($r_s = .62, p < .05$).

To analyze a sample with few cases (11 media systems), we reduced the number of variables by projecting our cases onto a two-dimensional space (see Figure 1). By doing so, we could (a) plot the values of all media systems for each variable considered and (b) simultaneously depict the correlations between our variables (visualized as vectors in Figure 1). As shown in Figure 1, the positions of the vectors signal highly positively correlated variables (for those that point in the same direction), highly negatively correlated variables (for those pointing in opposing directions), and variables that are not correlated at all (those that are [quasi-]orthogonal to each other). The average correlation between vectors (i.e., variables) was greater than .7, and the coefficient of alienation showed acceptable levels of goodness of fit (<.15; Bravata, Shojania, Olkin & Raveh, 2008). By mapping the cases and variables, we were able to visually identify patterns in our data that guided us through our subsequent statistical analysis.

² Subscripts represent Spearman's rho correlation. See <http://users.sussex.ac.uk/~grahamh/RM1web/APA%20format%20for%20statistical%20notation%20and%20other%20things.pdf>

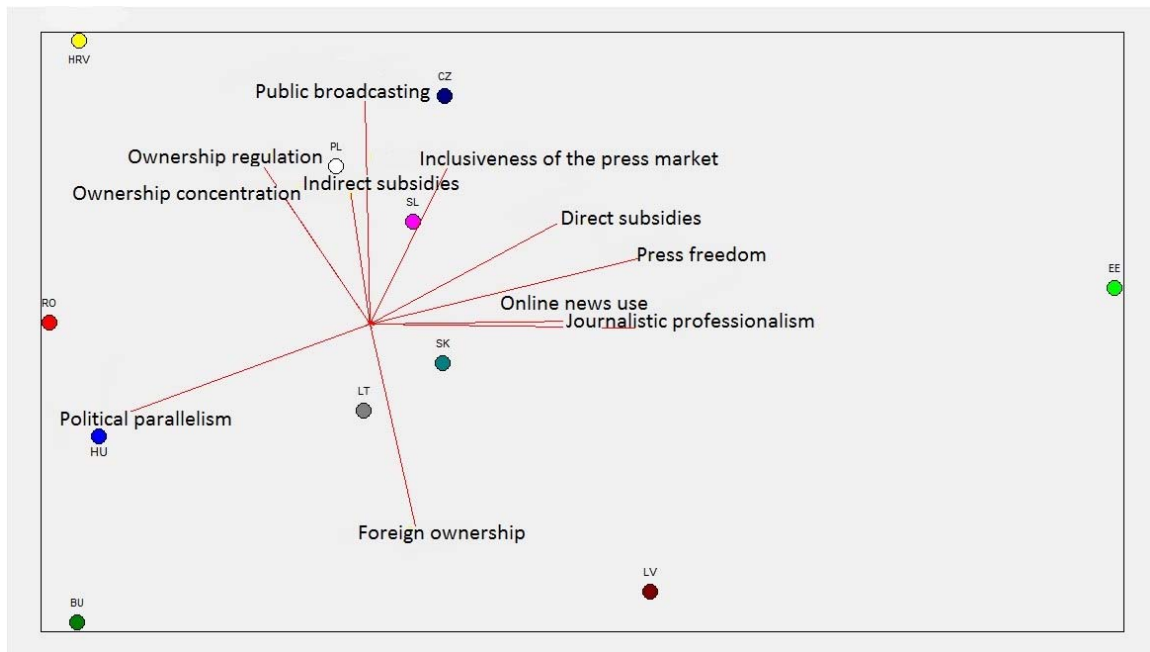


Figure 1. Multidimensional scaling of dimensions and countries. BU = Bulgaria; HU = Hungary; RO = Romania; LT = Lithuania; SK = Slovakia; LV = Latvia; EE = Estonia; CZ = Czech Republic; PL = Poland; HRV = Croatia; SL = Slovenia.

First, we selected dimensions that were more distant from the others and thus reflected different phenomena, namely, political parallelism and foreign ownership (see Figure 1). Second, we accounted for those variables that have traditionally been used to analyze and differentiate media systems in CEE, namely, freedom of the press (e.g., Jakubowicz & Sükösd, 2008) and PSB (e.g., Csigó, 2008; Popescu, Toka, Gosselin, & Santana Pereira, 2011; Sparks, 2008). Third, we confirmed their explanatory power by assessing the extent to which they allowed us to detect significant differences between cases in our data (i.e., press freedom). We also grouped closely correlated dimensions and ran reliability tests to examine whether the inclusion of single variables led to lower levels of consistency. This was the case for PSB. Overall, the following four main explanatory variables, two original dimensions and two new variables, were finally selected: political parallelism, public broadcasting, foreign ownership, and press freedom. The subsequent cluster analysis yielded a meaningful typology of media systems.

Our hierarchical cluster analysis resulted in three different groups of media systems, named after their approximate geographical location: eastern, central, and northern (see Figure 2). Among the eastern cluster, we find Bulgaria, Romania, and Hungary. Czech Republic, Poland, Croatia, and Slovenia belong to the central cluster, and Estonia, Latvia, Lithuania, and Slovakia form the northern one. The clusters were validated through three different robustness checks. First, we conducted a second cluster analysis using centroid-based *k*-means as an algorithm of aggregation whereby we were able to replicate the three-cluster solution. Second, we ran a second hierarchical cluster analysis with all of the indicators that were

originally considered to describe differences and similarities between media systems in the region besides the four main explanatory variables. This confirmed the three groups, and only Estonia was detached from the northern cluster and emerged as an outlier (see Figure 1 for a graphical depiction). A third test omitting Estonia from our cluster analysis with the four variables of theoretical and empirical interest, and also with the totality of indicators, confirmed the three-cluster pattern and the particularity of the Estonian case.

Overall, our data point at the impossibility of explaining CEE media systems by using just one model. The resulting three groups are distinctive in many instances (see Table 2).

Table 2. Cluster Profiles.

Type of media system	Political parallelism	Public broadcasting	Press freedom	Foreign ownership
Eastern: Bulgaria, Romania, Hungary	1.09	-0.76	-1.11	0.53
Central: Czech Republic, Poland, Croatia, and Slovenia	-0.12	1.06	0.11	-0.93
Northern: Estonia, Latvia, Lithuania, and Slovakia	-0.70	-0.49	0.72	0.54

Note. Values are *z*-standardized indices.

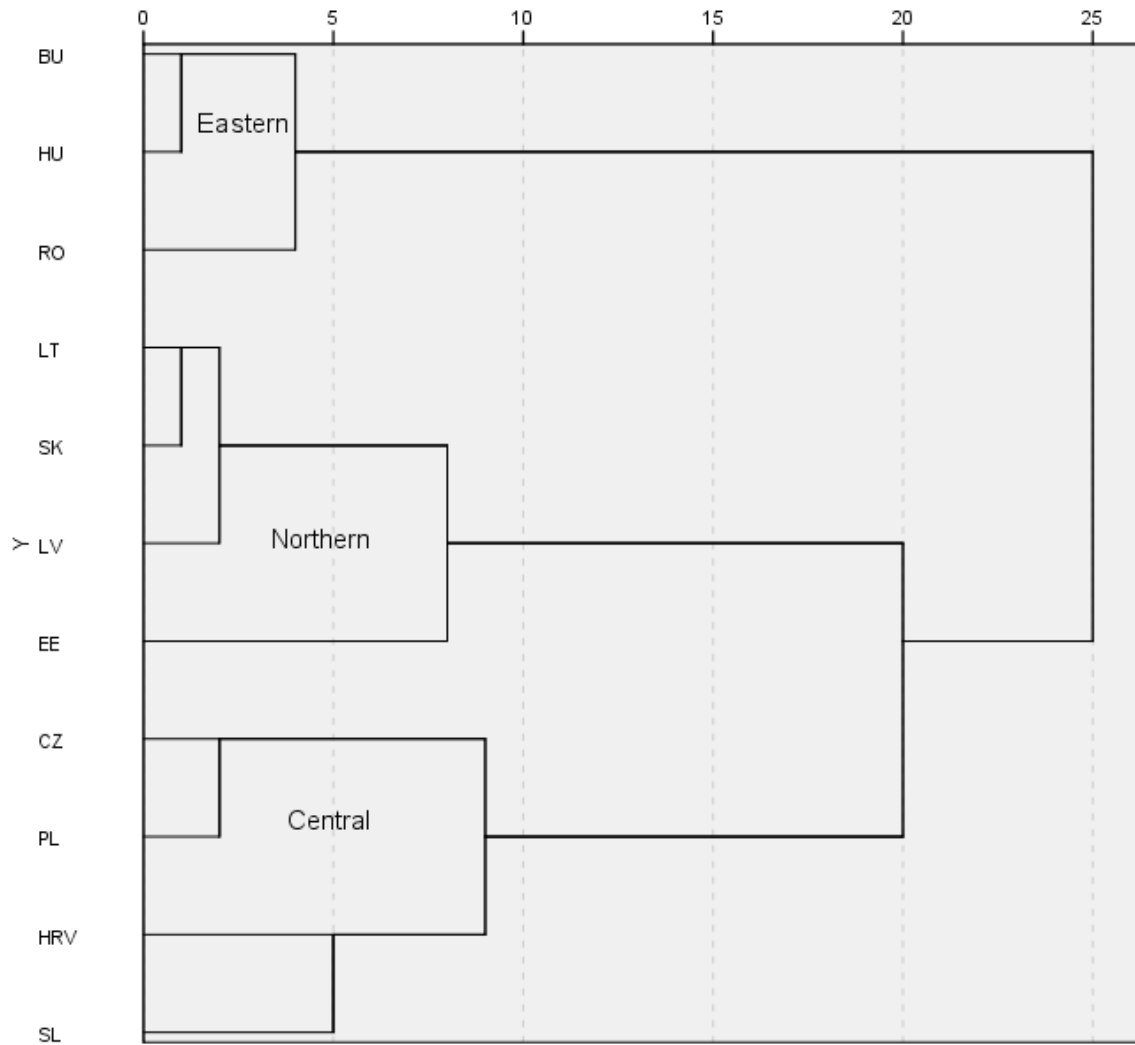


Figure 2. Dendrogram of the hierarchical cluster analysis. BU = Bulgaria; HU = Hungary; RO = Romania; LT = Lithuania; SK = Slovakia; LV = Latvia; EE = Estonia; CZ = Czech Republic; PL = Poland; HRV = Croatia; SL = Slovenia. Numbers on top represent distances at which cases have been grouped (0-25 scale).

The eastern cluster (Bulgaria, Hungary, and Romania) holds the highest levels of political parallelism combined with the lowest investments in and the lowest audience of PSB. These countries also have the lowest rates of press freedom and relatively high levels of foreign ownership (compared with the countries in the central cluster). Nevertheless, Romania is closer to the central cluster with regard to the latter variable, with the lowest levels of foreign investments among the 11 countries considered. In addition, the eastern cluster has the lowest levels of online news use, professionalization of the journalists, and regulation of media ownership (results not shown).

The central cluster (Croatia, Czech Republic, Poland, and Slovenia) is located somewhat between the eastern and the northern cluster, except for foreign ownership, the score for which is much lower than those for the rest of the clusters, and for PSB, which scores significantly higher than the others. Its high levels of ownership concentration, which come with the highest levels of ownership regulation, are also remarkable.³ In this last dimension, however, we find a high degree of variance within all clusters, which we attribute to the binary nature of the indicators used to operationalize the regulation of ownership.

The northern cluster (Estonia, Latvia, Lithuania, and Slovakia) is characterized by the lowest levels of political parallelism, the highest levels of press freedom, and the highest levels of foreign ownership. The countries in this cluster also grant the highest levels of journalistic professionalism and online political information use and the lowest levels of ownership concentration. However, as the successive cluster analyses conducted to provide robustness to our results suggest, Estonia may be a particular case in several respects. It is not only the "outstanding disciple" in the dimensions already mentioned (strong journalistic professionalism, high online news use), but it also does not square with the low levels of inclusiveness of the press market attributed to the northern cluster (Estonia has the highest score in newspaper reach). In addition, the role of the state in Estonia is much more prominent than in the rest of countries belonging to this cluster, where we could not find the strong direct and indirect subsidies and the relevance of PSB found in Estonia.

Discussion

Our study showed that Hallin and Mancini's (2004) framework must be adapted to the specific features of CEE (RQ1). First, press freedom and foreign ownership were considered as additional variables of theoretical interest because of their ability to explain differences between CEE countries on their own. Low levels of freedom of the press were found to align with historical trends in countries such as Romania and Bulgaria, which had particularly strong media censorship and state control during their communist pasts. We also found that the relevance of foreign ownership from the beginning of the 1990s could be traced in northern countries and Hungary, whereas the restrictions to foreign ownership in the late 1990s in Slovenia and the recent leave of foreign media investors from Czech Republic had a translation into their current low scores. Second, some reformulations in the operationalization of the Hallin and Mancini dimensions were needed for their framework to be applied to Eastern Europe. On the one hand, the

³ Klimkiewicz (2009) notes that even where regulations set stricter limits to broadcasting after 1989 (e.g., Czech Republic, Hungary, and Slovakia), foreign ownership increasingly became dominant relative to local media ownership.

indicator relying on the political preferences of each media outlet's audience—media-party parallelism—in the index of political parallelism had to be dismissed to avoid low levels of internal consistency. We attribute such inconsistent values of media-party parallelism to high degrees of electoral volatility and a lack of clear partisan alignments among CEE constituencies, as the previous literature shows (e.g., Dassonneville & Hooghe, 2011). Citizens' weak and changing political preferences can make it difficult to detect and measure media's political parallelism by means of partisan preferences of media users.

On the other hand, the press subsidies subdimension had to be disaggregated into direct and indirect subsidies. The rapid and uneven political institutionalization and press deregulation that occurred during the first several years after the twilight of communist regimes are plausible explanations for the great gap found between direct subsidies (which are nonexistent as such in the majority of CEE countries) and the much higher variance found for indirect subsidies across CEE. Furthermore, the indicator direct subsidies on its own seems to point to meaningful differences between countries. Whereas more opaque forms of direct funding abound in the region, only media systems that underwent profound normative developments (e.g., in compliance with recent EU accession processes) and with media policy tools supporting public interest content or national minorities happen to hold such a funding scheme (see Peruško, 2013, for the Croatian case). Third, PSB and political parallelism, as key parameters to explain the interplay between media and politics in the region (Csigó, 2008; Jakubowicz & Sükösd, 2008; Voltmer, 2008), revealed significant heterogeneities between countries with weak party systems with a tendency to politically use the media (Poland or Romania) and more stable political settings such as Estonia. Finally, contrary to our expectations, high levels of foreign media investment did not go hand in hand with high levels of ownership concentration. Further research should empirically address the question of whether foreign ownership may enhance media concentration, given the relevance of the latter for CEE media autonomy and content quality, as argued by previous literature (Dobek-Ostrowska & Glowacki, 2008).

Our analysis also revealed that CEE does not embody a single media system model, but can actually be segmented into three different types (RQ2). Eastern media systems (Bulgaria, Hungary, and Romania) formed a cluster characterized by extreme levels of political parallelism and low levels of press freedom. Central media systems (Czech Republic, Croatia, Poland, and Slovenia) shared the relative strength of their PSB and the lowest levels of foreign ownership. Finally, a northern cluster (Estonia, Latvia, Lithuania, and Slovakia) showed the highest levels of press freedom, the highest levels of foreign ownership, and the lowest levels of political parallelism. Estonia happened to be a very particular case within this third cluster, the singularity of which was confirmed by a more comprehensive robustness check with further variables, where Estonia also showed the highest rates of online news use, inclusiveness of the press market, and press subsidies, with substantial similarities to the Scandinavian countries (Zielonka & Mancini, 2011).

This study has a number of limitations and future challenges inherent to the difficulty of the task undertaken. First, more (longitudinal) research is needed to properly outline the key factors that characterize a region in which some countries are still teetering toward a "political gray zone" (Carothers, 2002, pp. 9–11) and whose hybrid media systems are the product of historical legacies, imitative processes, and multiple transformations (Jakubowicz & Sükösd, 2008; Mancini, 2015; Voltmer, 2012). In this vein, the rapid changes undergone by CEE media and political systems in the past two decades have

put any attempt to “immortalize” a typology of media landscapes in the region at risk of capturing a slightly blurred photograph. For example, whereas our study partly mirrors the deterioration of media freedom and autonomy that started to make its way in Poland in the 2000s and in Hungary in the 2010s (see Bajomi-Lázár, 2014), new data would be needed to capture the extent and implications of the comings and goings of governmental interference over PSB in Croatia. Hungary, Romania, and Bulgaria have also been characterized as particularly changing democracies, in which media are partly free (Dobek-Ostrowska, 2015). Overall, media laws are frequently amended and shifts in media ownership are continuous and oftentimes opaque, which make it difficult to build a durable description of the nature of media structures in the CEE region (Mancini, 2015).

Second, redundancies can be found between some of the dimensions we considered. There is at least one theoretical and one empirical reason why this might not be problematic for the purposes of our study. On the one hand, even if an indicator is used in more than one dimension, each dimension rests on a particular constellation of indicators that belong to each other and hold internal consistency. On the other hand, when we excluded a variable built on similar indicators as those used to construct other dimensions (e.g., press freedom), our analysis clustered countries in a different way.

Third, the data used may limit the equivalence of some of our analyses. For example, the limited scope of the World Press Trends database led us to build on a binary indicator to measure the regulation of media ownership, which may have overstated the amount of variance between countries on this particular issue. The World Press Trends compilation’s lack of reliability tests usually conducted in scientific cross-national studies has also been a basis for objection. Thus, we relied on original laws or EU reports for some indicators when available (e.g., ownership regulation) and cross-validated with further data when possible.⁴ The European Media Systems may also entail further problems with subjectivity because it relies on online interviews with experts. Nevertheless, Popescu et al. (2011) confirmed the validity of their data by contrasting it to other data sets.

Fourth, other variables may reveal further media heterogeneities worth addressing. The representation of minorities in media programming and newsrooms or the extent of media fragmentation along ethnic and political lines in countries such as Croatia or Slovenia, compared with more homogeneous ones (Poland or Czech Republic), may also contribute to characterizing groups of media systems in the region. Variables at the political system level (e.g., degree of proportional representation) might also be examined and linked to media systems characteristics (Hallin & Mancini, 2004).

⁴ The European Platform of Regulatory Authorities website served as consulting national legislation regulating media ownership (retrieved from <http://www.epra.org/articles/>; legislation in July and October 2015). Our data on broadcasting concentration and cross-ownership regulation were also cross-validated with the report on transnational media concentrations in Europe from the Advisory Panel to the CDMM on media concentrations, pluralism, and diversity questions (2004) for Bulgaria, Croatia, Czech Republic, Hungary, Romania, and Slovakia. Wyka (2010) was used to cross-check press ownership regulations in Hungary and Czech Republic.

Finally, our study indicates several variables and four main dimensions with high explanatory power—PSB, political parallelism, foreign ownership, and press freedom—that need to be further explored. They represent a valuable first benchmark that, together with previous approaches (Dobek-Ostrowska, 2015; Peruško et al., 2013; Santana Pereira, 2012), can be used to address the need for a valid theoretical and empirical framework that sheds light on the ways in which media systems in Western and Eastern European countries could be described and compared.

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Appendix

Table A1. Data Sources.

Data source	Time period	Collection method	Population	Sample	Response rate
European Audiovisual Observatory	2011	Secondary collection from Eurodata TV Worldwide and public services broadcasting annual reports	PSB	Census	N/A
European Election Studies I: Voter survey	2009	CATI ^a	Population aged 18 and older	1,000–1,005 per country	7–24%
European Election Studies II: Media study	2009	Content analysis	Main national television and newspapers	2–4 TV channels and 3 newspapers per country	N/A
European Media Systems Survey	2009–2010	Online survey	Experts of media and politics from academic institutions	17–35 per country	20–48%
Eurobarometer 76	Autumn 2011	Survey	EU citizens	1,000 face-to-face interviews per member state	N/A
Freedom House	2010	Survey and secondary collection of institutional reports	Experts from Freedom House	N/A	N/A
Hanretty (2009)	1944–2007	Data collection from public services broadcasting and LexisNexis	PSB	1 or 2 TV channels per country	N/A

Peruško & Popović (2008)	2008	Secondary collection from EU Commission, Council of Europe and European Institute for the Media	TV channels	Main TV channels	N/A
World Press Trends	2008–2010	Secondary collection from national newspapers associations and public institutions	N/A	N/A	N/A
World Values Survey	2005–2007	Face-to-face (and telephone) interviews	Population aged 18 and older	657–2,064 per country	26–93%

Table A2. Operationalization of Dimensions.

Dimension	Indicator	Measure	Data transformation	Scale	Source
Press market ^b	Overall daily newspaper reach	Standard measures of national market research institutes (e.g., TNS Gallup) "Could you tell me to what extent you read the written press?" ^c		%	WPT, 2008–2010; EB76, 2011
	Working-class daily newspaper reach	"People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information: . . . Daily newspaper." "In a typical week, how many days do you follow the news?" ^{d,e}	Filtering cases/respondents describing themselves as "working class"	%	WVS, 2005–2007; EES, 2009
	Women daily newspaper reach	Standard measures of national market research institutes (e.g., TNS Gallup)		%	WPT, 2008–2010

Dimension	Indicator	Measure	Data transformation	Scale	Source
Political parallelism ^f	Lacking separation of news and commentary	Number of evaluative references per news story		<i>N</i>	EES, 2009
	Partisan influence and policy advocacy	(1) "How far is the political coverage of each of the following media outlets influenced by a party or parties to whom it is close?" (2) "To what extent does each media outlet advocate particular views and policies?"	Additive index of measures 1 and 2 (Popescu et al., 2011)	0–20	EMSS, 2010
	Political orientation of journalists	"The political orientation of the most prominent journalists is well-known to the public."		0–10	EMSS, 2010
	Political bias	"To what extent does each media outlet present equally well the arguments of all sides in political debates?"	Inverted scale	0–10	EMSS, 2010
	PSB dependence	(1) Rate of CEO turnovers (2) Rate of government changes followed by CEO turnovers within six months	Inverted average index of measures 1 and 2 (Hanretty, 2009)	0–1	Hanretty, 2009
Journalistic professionalism ⁹	Internal autonomy	"How much is the political coverage in the following media outlets influenced by its owners?"	Inverted scale	0–10	EMSS, 2010
	External autonomy	"Politicians, business people and interest groups influence what the news media report and how by pressurizing and bribing individual journalists."	Inverted scale	0–10	EMSS, 2010
	Professional guidelines	"Journalists agree on the criteria for judging excellence in their profession regardless of their political orientations."		0–10	EMSS, 2010

Dimension	Indicator	Measure	Data transformation	Scale	Source
	Media credibility	"News media enjoy a lot of credibility."		0–10	EMSS, 2010
	Public orientation	"Journalists are motivated by an ethic of serving the public interest."		0–10	EMSS, 2010
Public broadcasting ^h	Market share of public TV	Average daily market share		%	EAO, 2011
	Revenue (license fees) of PSB	Public revenue (U.S.\$) divided by GDP (U.S.\$)		<i>N</i>	EAO, 2011
Ownership regulation ⁱ	TV ownership regulation ^{j,k}			Binary	WPT, 2009
	Newspaper/publisher ownership regulation ^l			Binary	WPT, 2009
	Cross-media (print/broadcast) ownership regulation ^l			Binary	WPT, 2009
Direct subsidies ^l	Press subsidies	Press subsidies (U.S.\$) divided by GDP (U.S.\$)		<i>N</i>	WPT, 2010
Indirect subsidies ^m	VAT reduction	General VAT rate minus average press VAT rate (VAT single copy and VAT subscription sales)		Percentage points	WPT, 2010
Press freedom	Press Freedom Index	Inverted Scale Press Freedom Index		%	Freedom House, 2010
Online news	Online news use	Information sources on political and national affairs		%	EB76, 2011
Foreign ownership	TV Foreign Ownership	Foreign TV owners among top-three operators		%	Peruško & Popović, 2008
Ownership concentration	C3	Concentration of the three stronger players of the market		%	Peruško & Popović, 2008

Note. WPT = World Press Trends; EB76 = Eurobarometer; WVS = World Values Survey; EES = European Election Studies; EMSS = European Media Systems; EAO = European Audiovisual Observatory; PSB = public service broadcasting; VAT = value added tax.

^a Computer-Assisted Telephone Interviewing. ^b Average index of the three respective indicator indices (Cronbach's $\alpha = .76$). ^c For Latvia, Slovakia, and Slovenia. ^d For Czech Republic, Latvia, Lithuania, and Slovakia. ^e We used the percentage of respondents that follows the news seven days a week, which is as equivalent to daily newspaper use as possible.

^f Average index of the five respective z-standardized indicator indices (Cronbach's $\alpha = .62$). ^g Average index of the five indicator indices (Cronbach's $\alpha = .88$). ^h Average index of the two respective z-standardized indicator indices (Cronbach's $\alpha = .65$). ⁱ Average index of the three respective indicator indices (Cronbach's $\alpha = .80$). ^j For Lithuania and Romania, information retrieved from respective laws regulating the media sector. ^k For Slovenia, the information was retrieved from the act regulating the transposition of the Audiovisual Media Services Directive. ^l For Croatia, WPT (2011). ^m For Bulgaria, Latvia, Poland, Slovakia, and Slovenia, WPT (2009).