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Hallin and Mancini Revisited:

Four Empirical Types of Western Media Systems

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Abstract

The analysis of media systems has become a corner stone in the field of comparative communication research. Ten years after its publication, we revisit the landmark study in the field, Hallin and Mancini's "Comparing Media Systems" (2004), and operationalize its framework for standardized measurement. The study at hand is, to the best of our knowledge, the first to comprehensively validate the original dimensions and models using aggregated data from the same sample of Western countries. Three out of four dimensions of media systems show relatively high levels of internal consistency but "role of the state" should be disaggregated into three sub-dimensions. A cluster analysis reveals four empirical types of media systems that differentiate and extend the original typology.

Keywords: Media systems, international comparison, journalism, political communication, typology, cluster analysis

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The study of media systems has become a corner stone in the evolving field of comparative communication research: typologies of media systems can serve as powerful heuristics that guide concept formation, hypotheses, and case selection. The unrivalled success of the two books, "Four Theories of the Press" (1956) and its successor "Comparing Media Systems" (2004), proves the power of media typologies. Hallin and Mancini's work has inspired and guided comparative research. It has received a lot of praise but also some criticism.

Ten years after its publication, it is time to revisit the theoretical framework and address a line of criticism that has been most prominently advanced by Norris (2011). She claims that Hallin and Mancini's three models cannot be replicated due to a lack of precise operationalization and standardized measurement. This paper follows her call and contributes to the field by operationalizing, validating, and – in some respects – modifying the framework introduced by Hallin and Mancini. This allows for replication and extension in future studies.

The Challenge of Measuring Media Systems

Comparative research is about explaining the commonalities and differences of communication practices by looking at variation in their contexts (Blumler, McLeod, & Rosengren, 1992; Esser & Pfetsch 2004). Typologies of media systems have become powerful tools in this endeavor as they provide simplified models of these explanatory contexts. [1] They describe typical patterns of how journalism cultures, media policy, media markets, and media use are connected in a given society. The idea of analyzing these patterns as "systems of political communication" was prominently advanced by Blumler and Gurevitch (1995, p. 12).

Today, Hallin and Mancini's three models of media systems have become the point of reference for many comparative studies of journalism and political communication (e.g. Aalberg & Curran 2012; Benson, Blach-Orsten, Powers, Willig, & Zambrano, 2012; Strömbäck, Orsten, & Aalberg 2008; Esser et al. 2012; Voltmer, 2013). A number of authors have

discussed in what way countries not included in the original study fit into the framework and how it should be extended to other parts of the world (see the contributions in Hallin & Mancini, 2012b). Hallin and Mancini (2004) openly acknowledge these limitations of their study. Their three models of media and politics are heuristics: simplified versions or ideal types of reality that real media systems will always diverge from. Also, they are aware of the fact that they do not cover countries beyond the Western world and neglect certain categories of comparison that might be decisive in media systems beyond Europe, such as media freedom and religion (Couldry, 2005; Engesser & Franzetti, 2011; Norris, 2009, p. 332). In fact, Hallin and Mancini (2012a) themselves invite the research community to extend and modify their dimensions, indicators, and models.

The future study of media systems should indeed include new forms of digital communication and go beyond the narrow realm of traditional news production as demanded by some of the critics (Hardy, 2012; Norris, 2009). Yet before extending the framework to cover more countries and including additional variables, another criticism should be addressed more thoroughly than it has been done by previous research. Norris (2009, p. 334) asks for a rigorous empirical validation of Hallin and Mancini's framework based on standardized indicators in order to see whether the dimensions "actually cluster together in meaningful ways." In response to this, Hallin and Mancini (2012a) have stressed the exploratory nature of their framework that still "would need to be tested by empirical research" (p. 213).

However, Hallin and Mancini's qualitative approach is not only a weakness but also strength of their study: It fosters an enhanced understanding of the cases under analysis. At the same time, thanks to the solid framework of dimensions provided, the explanations are not idiosyncratic but detect patterns of relations that go beyond understanding individual cases. Yet a standardized approach can validate and complement Hallin and Mancini's findings.

Our study is an attempt to perform the kind of operationalization that both Hallin and Mancini (2004) and Norris (2009) encourage. We operationalize the framework in a

standardized way that validates Hallin and Mancini's dimensions and models drawing on aggregated data – some of which was not yet available in 2004. The article will thus pursue the following three challenges and research questions related to them. The first question addresses the operationalization of Hallin and Mancini's dimensions: How can they be measured drawing on standardized data (*RQ1*)? The second question explores the dimensions and their relations: Do the indicators combine to the dimensions ingrained in Hallin and Mancini's framework (*RQ2a*) and do the dimensions correlate in the way the authors hypothesized (i.e. journalistic professionalism being positively linked to media-market development and political parallelism linked to state intervention) (*RQ2b*)? The third question is dedicated to Hallin and Mancini's models: Do the countries actually cluster into empirical types that can be characterized along the lines of the three models (*RQ3*)?

Revisiting the Framework of "Comparing Media Systems"

Hallin and Mancini (2004) have substantially advanced comparative research with three contributions. Their analytic framework identifies: (1a) basic dimensions for the analysis of media systems; (1b) dimensions of political systems that shape media systems; and (2) the resulting three models of media systems.

These contributions, however, have received uneven attention. While the models have become the reference point for various comparative analyses, even for those which do not deal with political communication, the analytic framework that generated these models seems to be somewhat neglected. This is unfortunate because the dimensions "travel better" and are more easily applied to other countries (Hallin and Mancini, 2012b, p. 287) than the models, which derive from a limited number of case studies on Western countries only.

This paper, in line with the main thrust of Hallin and Mancini's book, focuses on the identification of dimensions and types of *media systems*. Future studies, however, should also give closer scrutiny to the political system variables.

Dimensions of Media Systems

Therefore, the dimensions of "Comparing Media Systems" deserve closer attention before moving on to the well-known three models. Hallin and Mancini (2004) introduce four dimensions for the analysis of media systems and they also discuss several indicators that can be subsumed under each dimension. Hallin and Mancini (2004) use the term "dimensions" in a relatively broad way. However, a standardized measurement of dimensions, as well as an assessment of their internal consistency and correlations requires a stricter definition: Dimensions have to vary on a continuum between two poles, such as less or more political parallelism. While two of the original dimensions are indeed dimensions in this narrower sense of the term (i.e. *political parallelism* and *journalistic professionalism)*, the other two (i.e. *media market* and *role of the state*) are rather not.

On the one hand, we suggest relabeling the dimension of *media market*. Instead of comprehensively discussing "media markets", Hallin and Mancini focus on the history and current state of what we prefer to entitle *inclusiveness of the press market.* This determines whether the press only reaches out to the elites or to a broader mass audience. On the other hand, as the fourth dimension *role of the state* is much broader than the other ones, we distinguish three sub-dimensions, each one built on a different form of state intervention. Overall, we propose the following conceptualization (for the details see Table 3):

Inclusiveness of the press market. This dimension denotes how far the press reaches out to a broader audience. It includes indicators like the general reach of newspapers, as well as, more specifically, the reach among women and men, or among different segments of society, such as the working class (Hallin & Mancini, 2004, pp. 22-26).

Political parallelism. This dimension measures to what extent political advocacy is conceived of being part of the mission of journalism in different countries. It extends the concept of party-press parallelism that describes the links between media outlets and political parties (Blumler & Gurevitch, 1995; Seymour-Ure, 1974) to include general political values and being close to certain political camps rather than to parties (Hallin & Mancini, 2004, p. 28).

The dimension encompasses 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 (Hallin & Mancini, 2004, pp. 28-31).

Journalistic professionalism. Hallin and Mancini (2004, pp. 34-36) discuss three indicators for journalistic professionalism. The first is the degree of professional autonomy that journalists enjoy as a group. Autonomy can be limited either by external forces, such as political or economic actors, or by actors within the news organizations, such as the publishers or the owners. The second indicator for journalistic professionalism is the development of distinct professional norms, such as common ethical principles, e.g. concerning the protection of confidential sources. The third indicator is the extent to which journalists are oriented towards an ethic of serving the public interest. The absence of journalistic professionalism manifests itself in the instrumentalization of journalists by economic or political interests, which in turn contribute to diminish their credibility.

Role of the state. The role of the state differs between countries as far as the extent *and* the direction of state interventionism is concerned (Hallin & Mancini 2004, p. 41). As the form of state intervention and not only the degree of state interventionism might vary, it is not really one dimension of a media system but a broader multi-dimensional category. One may distinguish state interventionism that *complements* private media by public media, measures of the state that *support* private media, and measures that *restrict* media. Following this line of reasoning, we suggest introducing three dimensions that help to characterize Western media systems and are also open to standardized measurement.

In Western countries, public broadcasting is the most important kind of state intervention, following Hallin and Mancini (2004, p. 41) but also Curran et al. (2009) and Aalberg & Curran (2012). Western countries vary widely on this dimension, with the US maintaining

only marginal public broadcasting and Germany providing billions of Euros for a broad variety of national and regional public media outlets.

The second dimension of state intervention is support for commercial media organizations in the form of direct and indirect *press subsidies*. Some countries have strong public broadcasting outlets but not necessarily subsidies for the press. We are therefore dealing with two distinct dimensions of a media system.

The third dimension covers state interventions that restrict media organizations. This may happen by constraining *media content* or by regulating the *media market*. Western countries have abolished open censorship and guarantee press freedom. They limit media content in comparatively modest ways, for example with libel laws, more or less restricted access to public information and also by regulating election campaign coverage (Hallin & Mancini, 2004, p. 43-44). These measures are very diverse and can, from a theoretical point of view, hardly be integrated into a single index. While they should be explored further in future comparative research, the questions of regulating media ownership seems to be a more fundamental variable distinguishing Western media systems (Baker, 2007). It should be stressed, however, that limits on news content and press freedom are probably the most important dimension to distinguish media systems on a *global* scale.

We do thus propose to disaggregate role of the state into three dimensions relating to public broadcasting, press subsidies, and media ownership regulation. These issues are all included in Hallin and Mancini's role of the state dimension and they are all highly relevant in shaping media systems. They are also conceptually distinct so that one should not aggregate them into a single dimension before empirically exploring their relation.

The key interest behind Hallin and Mancini's (2004) quest for models of media systems was "the identification of characteristic patterns of relationship between system characteristics" (p. 11). If these patterns were absent, there would be no such thing as a media system while the existence of these patterns would be an indicator of 'systemness'. They would

show us that if we modified one element of the system, other elements would be likely to change as well (Engesser & Franzetti, 2011).

Therefore identifying statistical correlations would strengthen our claim that the dimensions introduced above can indeed be regarded as constituting a media system. Having said that, Hallin and Mancini (2004, p. 45) also claim that their dimensions are "ultimately irreducible to one another". Empirically, this could be measured by looking at the strength of the correlations: if the different dimensions were to perfectly correlate, this would question their value as separate dimensions of a media system.

Hallin and Mancini (2004, pp. 38, 39, 300, 301) also formulate hypotheses on how the dimensions are interrelated. They reckon that political parallelism is to some degree negatively related to journalistic professionalism because "[…] historically, the development of journalistic professionalization eroded political parallelism" (p. 38). Professionalism is expected to be positively related to the development of a strong commercial press. Newspapers that do not depend on financial support from the state are more likely to follow their own professional logic. Also, high degrees of political parallelism and strong state intervention are linked to some degree: influential parties and a strong role of the state may go hand in hand (p. 300).

Three Models of Media and Politics

Hallin and Mancini' (2004) analysis results in a typology of three models of media and politics that will briefly be summarized in the following (see also Table 1):

The North Atlantic or Liberal model. This model comprises Great Britain, the USA, Canada, and Ireland, and is characterized by high reach of the press market, low degrees of political parallelism, a highly professionalized journalism and a weak role of the state.

The Northern European or Democratic Corporatist model. It comprises the Nordic countries, the German speaking countries, Belgium, and the Netherlands. This model displays a high reach of the press market, relatively high degrees of political parallelism, strong

professionalization and strong state intervention, in the form of strong public service broadcasters and subsidies for the press.

The Mediterranean or Polarized Pluralist model. France, Greece, Italy, Portugal, and Spain form this group that is characterized by a low reach of the daily press, high political parallelism, weak professionalization, and strong state intervention. The latter does not necessarily mean that the state effectively serves the public interest. Particularistic interests and clientelistic relationships can also lead to failed state intervention (Hallin & Mancini 2004, p. 138). Besides, some of the Polarized Pluralist countries display attempts of "savage" deregulation in the broadcast sector (Hallin & Mancini, 2004, p. 73).

[Table 1 about here]

There have been some issues with the classification of particular countries within this framework. Most intensively discussed is the case of Great Britain with its strong public broadcasting, its ideologically polarized press, and its lack of fit with the Liberal model (Humphreys, 2012; Norris, 2009, p. 334). In line with their critics, Hallin and Mancini (2004) point out: "The common idea of an 'Anglo-American' model of journalism is in part a myth" (p. 69). Curran (2010) stresses the exceptionalism of the US, in particular with regards to its role in world politics and the 'semi-independent' role of the press regarding the public justification of military interventions. Hardy (2008) even considers opening up a fourth separate model for the US. Another interesting case is Portugal which has been considered to "diverge significantly" from the Polarized Pluralist model and to "move away" from the political parallelism that characterizes Spain, Italy, and Greece (Hallin & Mancini, 2012a, p. 209).

Finally, the case of Germany may be interesting. With its absence of direct press subsidies it does not fit with the Nordic countries (Humphreys 2012, p. 163). Rather, it is somewhat similar to the British case with its very strong public broadcasting, high levels of

political parallelism in the press and an absence of press subsidies. Thus, some countries' classifications in the framework are particularly contested and deserve critical review.

Method

Hallin & Mancini's (2004) dimensions and models were examined using publicly available data and common statistical methods (e.g. correlation and cluster analysis).[2] Although this approach admittedly risks some oversimplification, we believe that it facilitates replication by condensing hazy relations between theoretical dimensions and media systems into solid values that can be used in subsequent studies.

The utilized datasets may be partially incomplete, outdated, or inequivalent. We accommodate for these problems by complementing and cross-validating the existing datasets. We drew on studies that employed a multitude of methods, such as expert interviews, surveys, literature reviews, and content analyses. We also took care that these studies were as up-to-date as possible and that they referred to the same period of time (i.e. from 2007 to 2011). All data sources are briefly portrayed in Table 2.

[Table 2 about here]

Operationalization and Data

The biggest challenge of this study was operationalizing the six dimensions (*RQ1*). In order to base our measurement on a solid foundation, every dimension was, first of all, divided into several indicators (see Table 3). For some dimensions (i.e. *political parallelism* and *journalistic professionalism*), the available data allowed us to use five or six indicators, for other dimensions (i.e. *public broadcasting* and *press subsidies*) we had to limit ourselves to two indicators. In any case, the indicators complemented and validated each other.

[Table 3 about here]

For the dimension of *inclusiveness of the press market* we obtained most of the required data from the World Press Trends (WPT) (2008-10). In the case of the indicator *working class daily newspaper reach* we had to rely on two different sources: For roughly half of the countries, we used the World Values Survey (WVS) (2005-07), and for the other half we drew on the European Election Studies (2009).

Concerning the dimensions of *political parallelism* and *journalistic professionalism*, the measures for two countries differed from the rest. For all the EU-member states in our sample and Norway, we found the required data in Popescu et al.'s (2011) European Media Systems Survey (EMSS). As Switzerland and the USA were not included in this study, we switched to the Worlds of Journalism Survey (WJS) (2007-11) for these countries. From this source, we selected those questions which we considered equivalent to the ones from EMSS (2010). In order to allow for comparison, the values for these questions, originally measured on the five-point scale of WJS, were normalized to the eleven-point scale of EMSS. In order to analyze the empirical equivalence of the two datasets we calculated bivariate correlations between the interchanged questions which resulted in acceptable coefficients (r = .70 – .97).

In terms of *political parallelism*, we could draw on the indices introduced by Popescu et al. (2011), Hanretty (2009), and van Kempen (2007). This broadened the basis of our measurement further and also increased its intersubjectivity. Concerning the indices by Popescu et al. (2011) and Hanretty (2009) we used the data provided by the authors. For the index by van Kempen (2007), we did not take the original data from the European Election Studies (1999) but reran the calculations on an updated version of the dataset from 2009.

Since Hanretty's (2009) analysis of public broadcasting independence did not include Greece and the Netherlands, we substituted the missing values with information from Humphreys (1996) on the politicization of public broadcasting systems. Again, a strong correlation between the two datasets (r = .75) shows that they are, at least to a certain degree, equivalent.

For the dimensions *public broadcasting*, *ownership regulation* and *press subsidies* we used data from the European Audiovisual Observatory (EAO) (2011) and, again, from the World Press Trends (WPT) (2008-10).

The indicator values were, if they had been measured on different scales, *z*-standardized. Subsequently they were averaged to dimension indices of acceptable internal consistency (Cronbach's $\alpha = .59 - .91$).[3] We preferred average to additive indices because they are less sensitive to missing values, which could, in spite of complementary datasets, not be completely avoided. Prior to data analysis, the dimension indices were also *z*-standardized.

Country Sample and Data Analysis

For comparative reasons, we intended to apply the instrument to the same countries as Hallin and Mancini (2004) (see Table 1). Unfortunately, Canada was covered by neither EMSS (2010) nor WJS (2007-11), so we had to leave it out of our study. This resulted in a total sample of 17 Western countries.

We explored the relations between the six dimensions by conducting bivariate correlation analyses between the *z*-standardized dimension indices. For validating Hallin and Mancini's (2004) models of media systems we used the six *z*-standardized dimension indices to carry out a two-stage cluster analysis of the seventeen countries. In order to identify the number of clusters we performed a hierarchical cluster analysis using Ward's algorithm and the Squared Euclidean distance as heterogeneity measure. We chose the four-cluster solution for three reasons. First, merging the clusters beyond the fourth would result in solutions that were too heterogeneous (see Table 4). If we display the sum of squared distances as a scree plot, this is reflected by a strong elbow at the fourth cluster. Second, the dendogram for the four-cluster solution is very clear and highly interpretable (see Figure 1). Third, we checked the clarity and interpretability of alternative solutions and found that they could not compete with the four-cluster solution.

[Table 4 and Figure 1 about here]

In order to optimize the countries' cluster membership and validate the analysis through another algorithm we used the centroid-based *k*-means method (Milligan & Sokal, 1980). By and large, the cluster solution was confirmed: only France shifted from the Central to the Southern cluster. This change appears plausible because the Southern cluster contains those countries which were labeled Polarized Pluralist by Hallin and Mancini (2004).

Findings

The findings of this study are organized in two sections: the first assumes a variable-oriented perspective and is dedicated to the internal consistency and the correlations of the six dimensions of media systems (*RQ2a* and *RQ2b*); while the second is case-oriented and presents the results of the cluster analysis carried out to empirically validate Hallin and Mancini's models of media and politics (*RQ3*).

Consistency and Correlations of the Dimensions

The three dimensions *inclusiveness of the press market*, *political parallelism*, and *journalistic professionalism* showed acceptable levels of internal consistency (see Method section). This can be regarded as empirical support for Hallin and Mancini's original conceptualization, and thus we retained these dimensions as they were.

However, *role of the state* proved to be a multi-dimensional category. A superordinate dimension of state interventionism combining the different indicators of *public broadcasting*, *ownership regulation*, and *press subsidies* would be of unacceptable internal consistency (Cronbach's $\alpha = .36$). This shows that *role of the state* is a category consisting of different dimensions, as we already assumed theoretically.

In order to identify these dimensions, a Principal Component Analysis (PCA) of the different indicators for role of the state was conducted. It revealed three components with Eigenvalues of $\lambda_1 = 2.18$, $\lambda_2 = 1.53$, and $\lambda_3 = 1.34$, explaining altogether 72 % of total variance.

Since a hypothetical fourth component would only have an Eigenvalue of $\lambda_4 = 0.79$, the Kaiser criterion suggested the extraction of three components. If we display the Eigenvalues as a scree plot, there is a strong elbow at the fourth component, also supporting the three-component solution. The indicators for ownership regulation load highly on the first component, the second component includes the indicators for press subsidies, and the indicators for public broadcasting correlate with the third component (see Table 5). Even though the results of this PCA have to be treated with caution due to the small sample size and the limited number of variables loading on the components, the three extracted components, by and large, can be considered as empirical manifestations of *role of the state*'s three dimensions as introduced in the theoretical part of this paper.

[Table 5 about here]

Hallin and Mancini (2004) argue that a strong press market and highly professional journalism go hand in hand. This correlation is supported by our empirical analysis (see Table 6). They also assume that political parallelism and an interventionist state presuppose each other. However, we only find a relatively weak and non-significant positive correlation between political parallelism and *one* dimension of role of the state, which is ownership regulation. The correlations between political parallelism and the *other two* dimensions of role of the state (i.e. public broadcasting and press subsidies) are also non-significant, and even negative. These empirical results show again that the role of the state proves to be more complex than expected and should be divided into three dimensions. The supportive form of state interventionism, as expressed by press subsidies, and the restrictive approach manifested in ownership regulations, correlate negatively, although non-significantly.

[Table 6 about here]

We also found that the stronger the political parallelism is in a country, the less professional are its journalists and the less inclusive is its press market. There is also evidence that an inclusive press market and a strong public broadcasting system co-occur**.**

Four Empirical Types of Western Media Systems

In the following section, we will present the results of the cluster analysis. The emerging clusters can be regarded as empirical types of Western media systems which will be contrasted to Hallin and Mancini's more ideal-type models of media systems (see Table 7).

Grouping the seventeen Western countries in our sample together according to their position on the six dimensions results in four clusters: Central, Northern, Southern, and Western. We named them according to the geographic location of the countries they include.

[Table 7 about here]

The countries which originally formed the Democratic Corporatist model are now distributed among the Northern, Central, and Western cluster. The relatively high homogeneity of the Nordic countries Denmark, Finland, Norway, and Sweden justifies the formation of a separate Northern cluster. Norway has the shortest distance to the center of this cluster and can be regarded as its prototype. Austria, Germany, and Switzerland constitute the Central cluster where they are joined by Great Britain. Germany comes closest to the center of this cluster and can be considered prototypical. Belgium and the Netherlands are detached from the Democratic Corporatist countries. They are more similar to the Liberal countries Ireland and the USA in the Western cluster. Most of the countries from the Polarized Pluralist model are absorbed by the Southern cluster, of which Italy is the prototype. Only Portugal does not fit in and finds its way to the Western cluster, for which it can be regarded prototypical.

Great Britain's detachment from the Liberal countries and Portugal's move away from the Polarized Pluralist states is in accordance with the theoretical considerations expressed by Humphreys (2012), Norris (2009), as well as Hallin and Mancini (2012a) themselves. Great Britain is less liberal and Portugal more liberal than originally conceptualized. The latter also applies to Belgium and the Netherlands. Portugal, Belgium, and the Netherlands share a non-interventionist state which manifests most clearly in relatively weak public broadcasting. Therefore, they are transferred to Ireland and the USA in the Western cluster.

If we look at the cluster profiles (see Figure 2) we can see that the Central cluster is mainly characterized by strong public broadcasting, strict ownership regulation, and low press subsidies. The Northern countries show highly professional journalism, an inclusive press market, powerful public broadcasting, and generous press subsidies. This goes together with the lowest levels of ownership regulation and political parallelism among the four clusters. At this point, it becomes evident that one of the advantages of dividing the role of the state into three dimensions is to differentiate between Central and Northern countries. The Southern type combines the highest degree of political parallelism with the least professional journalism and the least inclusive press market. It is relatively heterogeneous in terms of ownership regulation. Countries from the Western type share a very low level of public broadcasting and press subsidies, both of which are exceptionally low in case of the USA.

[Figure 2 about here]

A basic measure of intra-cluster homogeneity can be obtained by dividing the standard deviation of each cluster variable within the cluster by the standard deviation of the cluster variable across the entire sample. If this coefficient exceeds 1, the intracluster standard deviation is larger than the total standard deviation and the cluster is considered heterogeneous. If the value scores substantially below 1, the cluster is relatively homogenous. In this paper, the

average values of the clusters across all six dimensions range from .51 (Central) to .73 (Southern) which indicates satisfactory levels of homogeneity.

The empirical types presented in this section, by and large, correspond to Hallin & Mancini's (2004) characterization of their original models of media and politics (Table 1). There are, however, some important differences. The political parallelism of Central and, most of all, Northern countries is lower than predicted by Hallin and Mancini (2004) for the Democratic Corporatist model. Besides, the state interventionism of the Central and Northern type is not equally strong on all three dimensions: Central countries avoid granting press subsidies while Northern countries refrain from ownership regulation. Furthermore, in Southern countries, the state is not as much interventionist as attributed to the Polarized Pluralist model by Hallin and Mancini.

The ideal-type Liberal model with a highly inclusive press market and very professional journalists does not exist in the sample. Even the presumed prototype USA does not come up with high levels on these dimensions. Instead we find the Western type as empirical manifestation of the Liberal model: Countries of this type share low levels of state intervention but only medium levels of press market and journalistic professionalism.

As final step of the data analysis we investigated how well the four empirical types explained the variance of the six dimensions of media systems (see Table 8). The explanatory power of the clusters is statistically significant across five dimensions and tends to be significant for the dimension of press subsidies. Our empirical types explain, on average, 62 % of variance. We can now compare the empirical types to Hallin & Mancini's (2004) models: Even though the original models already perform very well and explain a third of the variance, the empirical types increase this value by another 29 percentage points.

[Table 8 about here]

Discussion

The first challenge was to operationalize Hallin and Mancini's theoretical framework for standardized measurement (*RQ1*) which was in fact feasible by drawing on standardized measurement and statistical analysis.

The second challenge was to explore the dimensions ingrained in Hallin and Mancini's framework and their empirical relations (*RQ2a* and *RQ2b*). The dimensions *inclusiveness of the press market, political parallelism,* and *journalistic professionalism* displayed high degrees of internal consistency and may thus serve as the base for future studies. In line with the hypotheses from Hallin and Mancini (2004) we find that journalistic professionalism goes hand in hand with a strong and highly inclusive press market, while it is negatively correlated with political parallelism.

Conceptually, we have argued that *role of the state* is not a one-dimensional but at least a three-dimensional category. The empirical analysis confirms our argument. A PCA of the indicators reveals that there are three sub-dimensions (*public broadcasting*, *ownership regulation*, *press subsidies*). Looking at specific cases illustrates why differentiating the dimension *role of the state* is helpful: Germany and Great Britain display high levels of state intervention with regards to ownership regulation and broadcasting but low levels in terms of press subsidies. These are also important features that distinguish Great Britain from the USA, and prevent us from putting both countries into the same group. This point has been raised by many of Hallin and Mancini's critics (Curran 2011; Humphreys 2012; Norris 2009) and by themselves (Hallin & Mancini, 2004, p. 11). Empirically, the contributors to Aalberg and Curran (2012) have demonstrated how the UK is much closer to other European countries with regard to a number of variables, particularly the powerful effect of the strong British public broadcasting on the political knowledge of the citizenry.

Thus, the empirical data confirms our theoretical proposition to distinguish three dimensions that might also be useful for future modeling of media policy: the state may *support*

the press with subsidies. It may furthermore *complement* commercial media by introducing and sustaining a strong public broadcasting system. Finally, policy makers may also *restrict* the free play of the market forces by imposing ownership regulations.

The third challenge was to determine empirical types of media systems and compare them with Hallin and Mancini's three models (*RQ3*). We arrived at four types but there is a great overlap with the original typology: Our Southern type is very similar to the Polarized Pluralist model and the Western type is close to the Liberal model.

Yet, we do also show, where the traditional models can no longer account for today's media cultures. Three models may be a more parsimonious solution than four, yet, across all the dimensions the empirical types explain almost a third of variance more than the original models. The additional explanatory power not only applies to the new dimensions introduced into the framework, but also to all the dimensions that have been left unchanged. The better fit of the four types with the empirical data may also be expressed in very concrete terms, when looking at the affiliations of the countries: e.g. Great Britain's detachment from the type of Liberal media system as represented by the US. Also, Portugal's move away from the Polarized Pluralist states is in line with claims raised in response to Hallin and Mancini's study by Humphreys (2012), Norris (2009), as well as Hallin and Mancini (2012a) themselves.

The empirical types found in this study challenge the three ideal-typical models of media systems in two ways: The first concerns the conceptualization of the Liberal model and the second implies a differentiation of the Democratic Corporatist model.

We suggest that the Liberal model needs to be refined when being confronted with the more recent empirical data included in this study: While historically, a mass-market press and journalistic professionalism entailed low levels of state intervention, today, there is a group of "liberal" countries (our Western type) that share low levels of state involvement in the media sphere but they are no longer the front-runners in terms of inclusiveness of the press market and journalistic professionalism. This role is taken over by countries that subsidize the press,

display high levels of journalistic professionalism and low level of political parallelism (our Northern type). Also, our correlational analysis does not support the expectation attached to the Liberal Model that low state interventionism in terms of press subsidies and public broadcasting entails high inclusiveness of the press market and journalistic professionalism.

The empirical types of media systems diverge in a second way from the original models. The Democratic Corporatist model corresponds to two empirical types: the Northern type, consisting of the Nordic countries, and the Central type, represented by cases from Central Europe and Great Britain. Both types display similar levels of *press market inclusiveness* and a strong *public broadcasting*, but they do also differ in important ways. The Central type has lower levels of *press subsidies* and *journalistic professionalism*. It also displays higher levels of *ownership regulation* and *political parallelism* than the Northern type.

The four empirical types seem to provide a better fit with today's media cultures: The Nordic countries are not grouped together with countries like Germany, Austria and Britain. The latter are characterized by a press that displays substantial political parallelism while the former all range at the lower end of the parallelism scale (also see Norris, 2011, p. 257). The Democratic Corporatist model of Hallin and Mancini (2004) did include many more countries than the other models; it has been criticized as some kind of residual category between the extreme points marked by their Liberal and their Polarized Pluralist models.

Introducing a fourth type also catches up with current conceptualizations and research practices in the field of international communication. Curran, Iyengar, Lund, and Salovaara-Moring (2009) distinguish between three systems: "public service", "dual", and "market". They assign a Nordic country as representative of the former, Great Britain as representative of the dual model, and the USA as representative of the market model. It seems to make sense for many researchers not to group Britain with the US and also distinguish it from the Northern media systems. When looking at how researchers try to represent the diversity of

European media systems in their studies, they often sample a Nordic country, a country from central Europe, a Southern, and a Western country (e.g. van Dalen, de Vreese, & Albæk, 2012).

Differences between the models and country classification as presented by Hallin and Mancini (2004) can be explained by the different approaches but also by the time frames of the two studies: Hallin and Mancini could not draw on the more comprehensive and up-to-date data sets included in this study, but they have included a process perspective looking at the historical roots of different media systems and their evolution over time. The empirical types found in this study represent the status quo while the original three models reflect long-term historical developments. The fact that this study confirms many of the patterns from the three models shows that media systems are remarkably stable and that the models of Hallin and Mancini, by and large, reflect empirical reality.

Our empirical types may thus inspire future attempts to refine the ideal-typical formulations of models of media systems. Going beyond correlations between single variables they continue to serve as important steps towards developing a theory that grasps systematic patterns of relationships in political communications.

Limitations and Outlook

Our study confirms many of the assumptions and observations advanced by Hallin and Mancini (2004), and it is able to further develop their framework in ways that may inspire future research. Yet our study has a number of limitations, mostly related to the data available to conduct this kind of analysis but also related to its quantitative approach that needs to be complemented by more in-depth case studies.

One limit is its reliance on expert surveys like the European Media Systems Survey (EMSS) which can be criticized as not providing the precision of other data gathering methods because they introduce a certain degree of subjectivity. However, Popescu et al. (2010) report high reliability scores and support the validity of their results by comparing them with

those obtained by other studies. Besides country experts provide qualitative assessments which can be a valuable complement of standardized analysis.

Some problems also arise from the use of the World Press Trends (WPT) compilation. While being a valuable resource, it is not a scientific study and has not been subjected to the kind of validity and reliability tests that should be applied to scientific cross-national studies. In particular our binary indicators of state intervention drawn from WPT should be refined as soon as more comprehensive data is available.

These limitations notwithstanding, we do encourage researchers to continue to work with the available data, especially as we find that data from the different sources correlates highly on many indicators under analysis. However, we have to be cautious not to over-interpret data on single countries. For an in-depth understanding of individual cases qualitative analyses remain to be the superior research strategy.

Altogether, the results of the current study contribute to our knowledge of media systems by operationalizing, validating, and complementing Hallin and Mancini's framework. It offers links and directions for further research in four respects.

First, this study was focused on the media systems variables introduced by Hallin and Mancini (2004). As pointed out above their book also offers a discussion of related political systems. Following the formula provided by this study, future work should operationalize characteristics of the political system and explore their relation to the media-system dimensions analyzed in our study.

Second, the dimensions and indicators introduced above may be used in future studies as independent variables. The countries under analysis are all assigned with a numerical value for every dimension (see Table 9). These values may be used to explain variations in, for instance, media content or journalistic attitudes and practices. If these dependent variables also reach a metric level of measurement, correlative analyses become possible.

Third, the four types may help to provide a first rough guide in case selection and in formulating hypotheses in comparative studies of Western media systems. As a caveat, one should, however, reiterate the limits of our study that are inherited from Hallin and Mancini as discussed above: we do not cover all dimensions that might be relevant for an analysis of media systems, especially beyond the scope of political communication, beyond the traditional media and beyond Western countries.

This leads to the fifth and major challenge for research: going beyond Hallin and Mancini (2004) rather than only revisiting it. Future studies should include additional dimensions into the analysis such as internet access, social media, and press freedom. This would also allow for easier application of the framework to non-Western countries. An impediment is the lack of data even for very important countries such as Brazil, Russia, India, and China. A first and easier step would be to include Eastern European countries, for which the same kind of data is available that we used in our study.

Finally, the challenge remains to map the development of media systems over time: This remains one of the domains where qualitative in-depth case studies of single or small numbers of countries should be conducted. Especially those countries who are in the process of shifting their alignment to another type of media system should be of special interest for this kind of study that could explain the how and why of these shifts. The indicators and indices developed and validated in this study may hopefully serve as a small step towards engaging with this wider agenda of comparative research.

References

Aalberg, T. & Curran, J. (Eds.). (2012). *How media inform democracy: A comparative approach.* New York: Routledge.

Bailey, K. D. 1994. *Typologies and taxonomies: An introduction to classification techniques.* London: Sage.

Baker, C. E. (2007): *Media concentration and democracy. Why ownership matters.* New York: Cambridge University Press.

Benson, R., Blach-Orsten, M., Powers, M., Willig, I., & Zambrano, S. V. (2012). Media systems online and off: Comparing the form of news in the United States, Denmark, and France. *Journal of Communication, 62*(1).

Blumler, J. G., & Gurevitch, M. (1995). *The crisis of public communication.* London: Routledge.

Blumler, J. G., McLeod, J. M., & Rosengren, K. E. (1992). An introduction to comparative communication research. In J. G. Blumler, J. M. McLeod, & K. E. Rosengren (Eds.), *Comparatively speaking: Communication and culture across space and time* (pp. 3–18). Newbury Park: Sage.

Couldry, N. (2005). Review of comparing media systems. *Political Studies Review, 3*(2), 308.

Curran, J., Iyengar, S., Brink Lund, A., & Salovaara-Moring, I. (2009). Media system, public knowledge and democracy: A comparative study. *European Journal of Communication, 24*(1), 5–26. DOI: 10.1177/0267323108098943.

Curran, J. (2011). Questioning a new orthodoxy. In J. Curran (Ed.), *Communication and society: Media and democracy* (pp. 28–46). London: Routledge.

DeVellis, R. (2003). Scale development: Theory and applications. Thousand Oaks: Sage

Engesser, S., & Franzetti, A. (2011). Media systems and political systems: Dimensions of comparison. *International Communication Gazette, 73*(4), 273–301. DOI: 10.1177/1748048511398590.

Esser, F. & Pfetsch, B. (2004). Meeting the challenges of global communication and political integration: The significance of comparative research in a changing world. In F. Esser & B. Pfetsch (Eds.), *Comparing political communication: Theories, cases, and challenges* (pp. 384–411). Cambridge: Cambridge University Press.

Esser, F., de Vreese, C. H., Strömbäck, J., van Aelst, P., Aalberg, T., Stanyer, J., et al. (2012). Political Information Opportunities in Europe. *The International Journal of Press/Politics, 17*(3), 247–274.

Hair, J. F, Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis.* Englewood: Prentice Hall International

Hallin, D. C., & Mancini, P. (2004). *Comparing media systems: Three models of media and politics.* Cambridge: Cambridge University Press.

Hallin, D. C., & Mancini, P. (2012a). Comparing media systems: A response to critics. In F. Esser & T. Hanitzsch (Eds.), *Handbook of comparative communication research* (pp. 207–220). London: Routledge.

Hallin, D. C.; Mancini, P. (Eds.) (2012b): *Comparing media systems beyond the western world.* Cambridge: Cambridge University Press.

Hanretty, C. (2009). Explaining the de facto independence of public broadcasters. *British Journal of Political Science,* 40, 75–89. DOI: 10.1017/S000712340999024X.

Hardy, J. (2008). *Western media systems.* New York: Routledge.

Hardy, J. (2012). Comparing media systems. In F. Esser & T. Hanitzsch (Eds.), *Handbook of comparative communication research* (pp. 185–206). London: Routledge.

Humphreys, P. (1996). *Mass media and media policy in Western Europe.* Manchester: Manchester University Press.

Humphreys, P. (2012). A political scientist's contribution to the comparative study of media systems in Europe: A response to Hallin and Mancini. In N. Just & M. Puppis (Eds.),

Trends in communication policy research: New theories, methods and subjects (pp. 141–158). Bristol, UK: Intellect.

Milligan, G. W., & Sokal, L. M. (1980). A two-stage clustering algorithm with robust recovery characteristics. *Educational and Psychological Measurement, 40,* 755-759.

Norris, P. (2009). Comparative political communications: Common frameworks or Babelian confusion? *Government and Opposition, 44*(3), 321–340. DOI: http://dx.doi.org/10.1111/j.1477-7053.2009.01290.x

Norris, P. (2011). Comparative communications. In D. Caramani (Ed.), *Comparative politics* (pp. 352–370). Oxford: Oxford University Press.

Pfetsch, B., & Esser, F. (2012). Comparing political communication. In F. Esser & T. Hanitzsch (Eds.), *Handbook of Comparative Communication Research* (pp. 25–47). London: Routledge.

Popescu, M., Toka, G., Gosselin, T., & Santana Pereira, J. (2011). *European media systems survey 2010: Results and documentation.* Colchester: University of Essex.

Seymour-Ure, C. (1974). *The political impact of mass media.* London: Constable.

Siebert, F. S., Peterson, T., & Schramm, W. (1956). *Four theories of the press: The authoritarian, libertarian, social responsibility and Soviet communist concepts of what the press should be and do.* Urbana: University of Illinois Press.

Strömbäck, J, Orsten, M, & Aalberg, T. (2008). *Communicating politics: Political communication in the Nordic countries.* Göteborg: Nordicom.

van Dalen, A., de Vreese, C. H., & Albæk, E. (2012). Different roles, different content? A four-country comparison of the role conceptions and reporting style of political journalists. *Journalism, 13*(7), 903–922. DOI: 10.1177/1464884911431538.

van Kempen, H. (2007). Media-party parallelism and its effects: A cross-national comparative study. *Political Communication, 24*, 303-320. doi: 10.1080/10584600701471674.

Voltmer, K. (2013). The media in transitional democracies. Cambridge: Polity

Endnotes

1 A thorough discussion of the advantages of typologies is provided by Bailey (1994). He also mentions the pitfalls of this approach, such as the reification of ideal-types and oversimplification (p. 11-16). These points also apply to comparative communication research (Hallin & Mancini, 2012b). Abandoning the notion of media systems altogether (Norris, 2009) would reduce our understanding of how different dimensions and variables aggregate into bounded wholes, whose elements cannot be fully grasped in isolation from another (Hallin & Mancini 20012b, p. 304).

2 Increased comprehensibility and reproducibility were the main reasons why we preferred the relatively popular cluster analysis over the less-established Qualitative Comparative Analysis (QCA) which is still very seldom employed for the purpose of typology formation.

3 These coefficients may not completely meet the standards of scale development established in micro-level research (DeVellis, 2003). However, our study can be considered basic research and it is located on the macro-level where scholars frequently have to cope with fewer cases and a considerable amount of noise in the data. So we had to content ourselves, in the cases of two dimension indices, with levels of internal consistency that are slightly lower than generally desirable but still acceptable (De Vellis, 2003, p. 95; Hair et al., 1998, p. 88). Low case numbers also prevented us from conducting *robust* PCAs or EFAs in order to explore the dimensionality of our indices. So we conducted PCA's only as rough guidelines and just report their overall results. We applied a stricter version of the Kaiser criterion, considering only components that substantially exceeded an Eigenvalue of $\lambda = 1$ (DeVellis, 2003, p. 114). In this way, each dimension could be condensed to one single component with Eigenvalues of $\lambda > 1.4$. These components each explained between 56 % and 78 % of total variance, which can be considered satisfactory (Hair et al., 1998, p. 104).

Tables

Table 1: *Original Dimensions and Models of Media Systems*

Dimension	Model		
	Mediterranean Polarized Pluralist	Northern European Democratic Corporatist	North Atlantic Liberal
Press Market	Low	High	High
Political Parallelism	High	High	Low
Journalistic Professionalism	Low	High	High
Role of the State	High	High	Low
Countries	ES, FR, GR, IT, PT	AT, BE, CH, DE, DK, FI, NL, NO, SE	CA, GB, IE, US

Source: Hallin and Mancini (2004, p. 299)

Table 2: *Data Sources*

Data Source	Time Period	Collection Method	Population	Sample	Response Rate
European Audiovisual Observatory (EAO)	2011	Secondary collection from Eurodata TV Worldwide and public service broadcaster's annual reports	Public service broadcasters	Census	Not available/ Not applicable
European Election Studies (EES) I: Voter survey	2009	CATI	Population aged 18 and older	1000-1005 per country	7-24 %
European Election Studies (EES) II: Media study	2009	Content analysis	Main national television and newspapers	2-4 TV channels and 3 newspapers per country	Not applicable
European Media Systems Survey (EMSS)	2009-2010	Online survey	Experts of media and politics from academic institutions	17-35 per country	20-48 %
Hanretty (2009)	1944-2007	Data collection from PSB and LexisNexis	Public service broadcasters	1-2 TV channel per country	Not applicable
Humphreys (1996)	1996	Literature review	Public broadcasting systems	Census	Not applicable
Worlds of Journalism Survey (WJS)	2007-2011	Telephone and face-to-face interviews	Professional journalists	100 per country	Not available
World Press Trends (WPT)	2008/2010	Secondary collection from national newspapers associations and public institutions	Not applicable	Not applicable	Not applicable
World Values Survey (WVS)	2005-2007	Face-to-face (and telephone [b]) interviews	Population aged 18 and older	657-2064 per country	26-93 %

[b] for Norway

Table 3: *Operationalization of Dimensions*

Dimension	Indicator	Measure	Data Transformation	Scale	Source
Press Market [a]	Overall daily newspaper reach	Standard measures of national market research institutes (e.g. TNS Gallup)		%	WPT, 2008/10
	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" [b]	Filtering cases/re-spondents describing themselves as "working class"	%	WVS, 2005-07
		"In a typical week, how many days do you follow the news?" [c d]	Filtering cases/ re-spondents de-scrib-ing themselves as "working class" and those who followed the news daily	%	EES, 2009
	Women daily newspaper reach	Standard measures of national market research institutes (e.g. TNS Gallup)		%	WPT, 2008/10

[a] Average index of the three respective indicator indices (Cronbach's $\alpha = .73$); [b] for Finland, Germany, Italy, Norway, Spain, Switzerland, and USA; [c] for Austria, Belgium, Denmark, France, Great Britain, Greece, Ireland, Netherlands, and Portugal. [d] We used the percentage of respondents that follows the news seven days a week which is as equivalent to daily newspaper use as possible.

Table 3 (continued): *Operationalization of Dimensions*

Dimension	Indicator	Measure	Data Transformation	Scale	Source
Political Parallelism [a]	Lacking separation of news and commentary	Number of evaluative references per news story		N	EES, 2009
	Partisan influence and policy advocacy	"How far is the political coverage of each of the following media outlets influenced by a party or parties to whom it is close?" (1) [b] "To what extent does each media outlet advocate particular views and policies?" (2) [b]	Additive index of measures 1 and 2 (Popescu et al., 2011)	0 to 20	EMSS, 2010
		"Please tell me on a scale from 1 to 5 how influential are politicians in your work" (1) [c] "Please tell me how important it is to set the political agenda, to influence public opinion, and to advocate for social change in your work" (2) [c]	Additive index of measures 1 and 2	0 to 20 [d]	WJS, 2007-2011
	Political orientation of journalists	"The political orientation of the most prominent journalists is well-known to the public."		0 to 10	EMSS, 2010
	Media-party-parallelism	"In a typical week, how many days do you watch/read the following news programs/ newspapers?" (1) "How probable is it that you will ever vote for the following parties on a scale from 0 to 10?" (2)	Index based on a regression model at party level in which measure 1 predicts measure 2. The R^2 for each party is weighted according to its electoral size (van Kempen, 2007)	0 to 100	EES, 2009
	Political bias	"To what extent does each media outlet present equally well the arguments of all sides in political debates?"	Inverted scale	0 to 10	EMSS, 2010
	PSB dependence	Rate of CEO turnovers (1) [e] Rate of government changes followed by CEO turnovers within six months (2) [e]	Inverted average index of measures 1 and 2 (Hanretty, 2009)	0 to 1	Hanretty, 2009
		Politicization of public broadcasting systems [f]	Three-point scale based on categories by Humphreys (1996)	0 to 1 [g]	Humphreys, 1996

Note: [a] Average index of the six respective z-standardized indicator indices (Cronbach's α = .83); [b] for all countries other than Switzerland and the USA; [c] for Switzerland and the USA; [d] the five-point scale of WJS (2007-11) was rescaled to the twenty-two-point scale of Popescu et al.'s (2011) index; [e] for all countries other than Greece and the Netherlands; [f] for Greece and the Netherlands; [g] the scale based on Humphreys (1996) was rescaled to the scale of Hanretty's (2009) index

Table 3 (continued): *Operationalization of Dimensions*

Dimension	Indicator	Measure	Data Trans-for-mation	Scale	Source
Journalistic Professionalism [a]	Internal autonomy	"And how much is the political coverage in the following media outlets influenced by its owners?" [b]	Inverted scale	0 to 10	EMSS, 2010
		"I have a lot of control over the work that I do." [c]		0 to 10 [d]	WJS, 2007-11
		"I am allowed to take part in decisions that affect my work." [c]		0 to 10 [d]	WJS 2007-11
		"Some of these limits can come from within the news organization. Please tell me on a scale of 1 to 5 how influential each of the following is in your day-to-day job." [c]	Inverted scale	0 to 10 [d]	WJS, 2007-11
	External autonomy	"Politicians, business people and interest groups influence what the news media report and how by pressurizing and bribing individual journalists." [b]	Inverted scale	0 to 10	EMSS, 2010
		"Other influences may come from outside the news organization. Again, please tell me on a scale of 1 to 5 how influential each of the following is in your work […]." [c]	Inverted scale	0 to 10 [d]	WJS, 2007-11
	Professional guidelines	"Journalists agree on the criteria for judging excellence in their profession regardless of their political orientations." [b]		0 to 10	EMSS, 2010
		"There are ethical principles which are so important that they should be followed by all journalists, regardless of situation and context." [c]		0 to 10 [d]	WJS, 2007-11
	Media credibility	"News media enjoy a lot of credibility." [b]		0 to 10	EMSS, 2010
		"Please tell me on a scale of 1 to 5 how much you personally trust each of the following institutions: The news media" [c]		0 to 10 [d]	WJS, 2007-11
	Public orientation	"Journalists are motivated by an ethic of serving the public interest." [b]		0 to 10	EMSS, 2010
		"Please tell me on a scale of 1 to 5 how important each of these things in your work is: 1) To provide citizens with the information they need to make political decisions; 2) To provide the audience with the information that is most interesting; 3) To motivate people to participate in civic activity and political discussion." [c]		0 to 10 [d]	WJS, 2007-11

Note: [a] Average index of the five indicator indices (Cronbach's $\alpha = .91$); [b] for all countries other than Switzerland and the USA; [c] for Switzerland and the USA; [d] the five-point scale of WJS (2007-11) was rescaled to the eleven-point scale of EMSS (2010)

Table 3 (continued): *Operationalization of Dimensions*

Dimension	Indicator	Measure	Scale	Source
Public Broadcasting [a]	Market share of public TV	Average daily market share	%	EAO, 2011[d]
	Public revenue (license fees) of public broadcasting	Public revenue (USD) divided by GDP (USD)	N	EAO, 2011[d]
Ownership Regulation [b]	TV ownership regulation		Binary	WPT, 2010
	Newspaper/publisher ownership regulation		Binary	WPT, 2010
	Crossmedia (print/broadcast) ownership regulation		Binary	WPT, 2010
Press Subsidies [c]	Direct subsidies	Press subsidies (USD) divided by GDP (USD)	N	WPT, 2010
	Tax reduction	General VAT rate minus average press VAT rate (VAT single copy and VAT subscription sales)	Percentage points	WPT, 2010

Note: [a] Average index of the two respective *z*-standardized indicator indices (Cronbach's $\alpha = .72$); [b] average index of the three respective indicator indices (Cronbach's $\alpha = .59$); [c] average index of the two respective *z*-standardized indicator indices (Cronbach's $\alpha = .60$); [d] for the USA: CPB, 2009

Table 4: *Increase of Heterogeneity by Agglomeration of Clusters*

Agglomeration Stage	Number of Clusters	Sum of Squared Distances	Change in Sum of Squares (Δ *SS*)
…	…	…	…
7	10	7.6	2.2
8	9	9.9	2.3
9	8	13.7	3.8
10	7	18.3	4.6
11	6	23.2	4.9
12	5	30.1	6.9
13	4	37.3	7.2
14	3	49.5	12.2
15	2	66.3	16.8
16	1	96.0	29.7

Note: While agglomerating $N > 4$ clusters results in small changes of heterogeneity ($\Delta SS \leq 7.2$), merging cluster 3 and 4 increases heterogeneity significantly more ($\Delta SS = 12.2$).

Table 5: *Principal Component Analysis of the Dimension "Role of the State"*

Item	Component		
	Ownership Regulation	Press Subsidies	Public Broadcasting
Crossmedia ownership	.91		
Press ownership	.78		
Tax reduction		.83	
Press subsidies		.69	
TV ownership	.42	.49	
Public revenue of public broadcasting	.59		.78
Market share of public TV			.77

Note: PCA with Oblimin rotation; $N = 15$; factor loadings $\alpha < .4$ suppressed

Table 6: *Correlations between the Dimensions*

Dimension	Political Parallelism	Journalistic Professionalism	Public Broadcasting	Ownership Regulation [a]	Press Subsidies [a]
Press Market	-.58*	.59*	.43^{+}	-.22	.21
Political Parallelism		-.87**	-.36	.24	-.15
Journalistic Professionalism			.21	-.34	.16
Public Broadcasting				-.05	.18
Ownership Regulation					-.10

Note: $N = 17$; values are Pearson's correlation coefficients; marked values are (or tend to be) statistically significant ($^{+}p < .1$, $*p < .05$, $**p < .01$); [a] Correlation coefficients for these dimensions have to be treated with particular caution because the value distributions may not be sufficiently normal (Shapiro and Wilk's *W*-test with $p < .1$)

Table 7: *Comparison of Original Models and Empirical Types*

Empirical Type	Original Model		
	Democratic Corporatist	Liberal	Polarized Pluralist
Northern	DK, FI, NO, SE		
Central	AT, DE, CH	GB	
Western	BE, NL	IE, US	PT
Southern			ES, FR, GR, IT

Table 8: *Explained Variance by Original Models and Empirical Types*

Dimension	Original Models (Hallin & Mancini, 2004)	Empirical Types	$\Delta\ \eta^2$
Press Market	.36*	.57*	.21
Political Parallelism	.62**	.83***	.24
Journalistic Professionalism	.61**	.72**	.11
Public Broadcasting	.29^{+}	.56*	.27
Ownership Regulation	.04	.62**	.58
Press Subsidies	.09	.42^{+}	.34
Mean	.33	.62	.29

Note: Values are partial η^2 from separate one-way analyses of variance; marked values are (or tend to be) statistically significant ($^{+}p < .1$, $*p < .05$, $**p < .01$, $***p < .001$).

Table 9: *Dimension Index Values and Country Rankings*

Country	Dimension											
	Press Market		Political Parallelism		Journalistic Professionalism		Public Broadcasting		Ownership Regulation		Press Subsidies	
	M	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*	Rank
Austria	-0.09	7	0.35	5	-0.90	14	0.36	7	1.11	1	-0.35	9
Belgium	-0.74	15	-0.70	14	0.33	8	-0.42	13	0.06	7	0.52	5
Denmark	-0.50	12	-1.32	16	1.31	1	1.41	1	-0.99	13	0.81	4
Finland	1.40	2	-1.36	17	0.92	4	0.77	4	-2.04	17	-0.73	15
France	-0.99	16	0.62	4	-0.45	12	-0.02	10	1.11	1	0.47	6
Germany	0.96	5	-0.56	13	0.21	9	1.37	2	1.11	1	-0.66	12
Great Britain	-0.17	8	-0.29	10	-0.49	13	0.89	3	1.11	1	-0.02	7
Greece	-2.09	17	1.43	3	-1.35	15	-1.15	16	1.11	1	-0.39	10
Ireland	-0.62	13	-0.06	7	-0.27	10	-0.49	14	-0.99	13	-1.08	16
Italy	-0.33	9	1.74	2	-2.00	17	-0.29	11	0.06	7	0.87	3
Netherlands	-0.33	10	0.19	6	0.72	6	-0.30	12	-0.99	13	-0.55	11
Norway	1.28	3	-1.04	15	0.87	5	0.50	5	-0.46	11	1.98	2
Portugal	0.38	6	-0.08	8	-0.36	11	-0.60	15	0.06	7	-0.32	8
Spain	-0.62	14	2.10	1	-1.37	16	0.19	8	-0.99	13	-0.66	13
Sweden	1.61	1	-0.39	11	1.17	2	0.14	9	-0.46	11	2.14	1
Switzerland	1.21	4	-0.50	12	1.06	3	0.44	6	1.11	1	-1.37	17
USA	-0.38	11	-0.12	9	0.60	7	-2.80	17	0.06	7	-0.67	14
Cluster												
Central (AT, CH, DE, GB)	0.48	2	-0.25	3	-0.03	3	0.77	1	1.11	1	-0.60	4
Northern (DK, FI, NO, SE)	0.95	1	-1.03	4	1.07	1	0.71	2	-0.99	4	1.05	1
Southern (ES, FR, GR, IT)	-1.01	4	1.47	1	-1.29	4	-0.32	3	0.33	2	0.07	2
Western (BE, IE, NL, PT, US)	-0.34	3	-0.15	2	0.20	2	-0.92	4	-0.36	3	-0.42	3

Note: Values are *z*-standardized dimension indices.

Figures

Figure 1: *Hierarchical Clustering Dendogram*

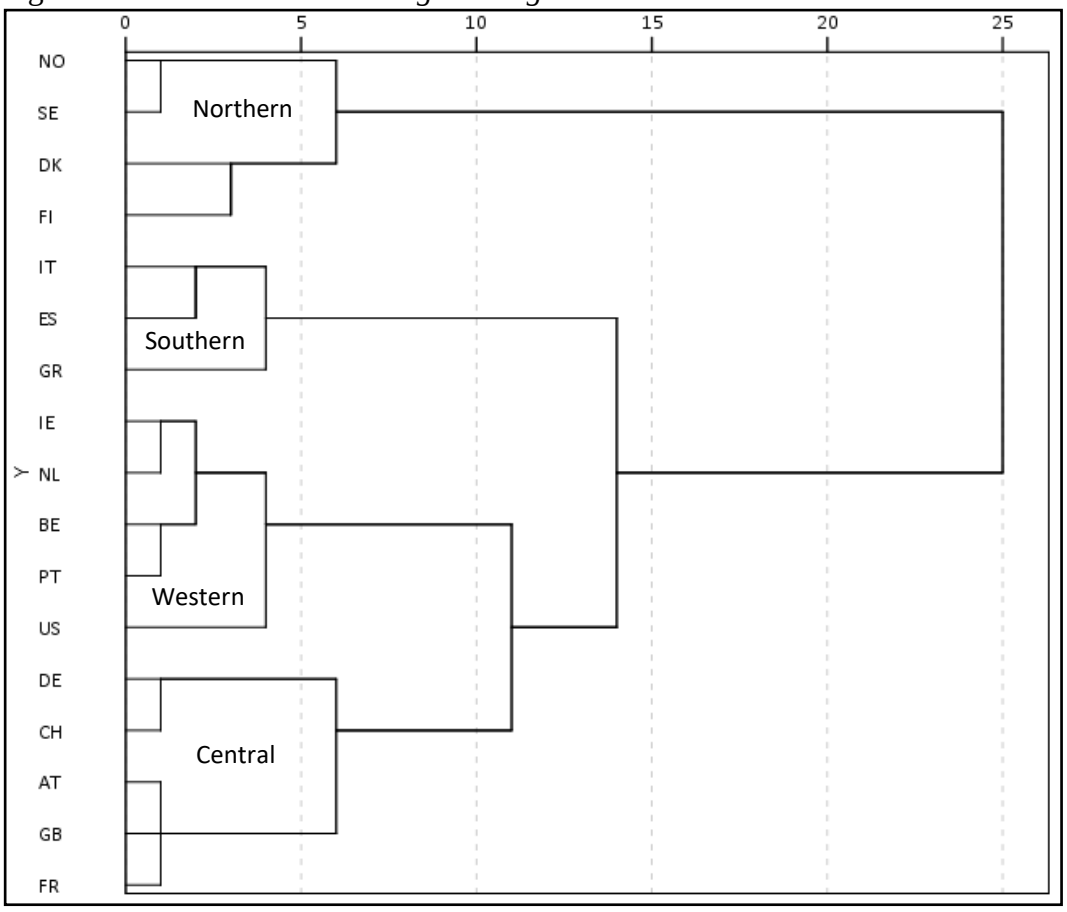
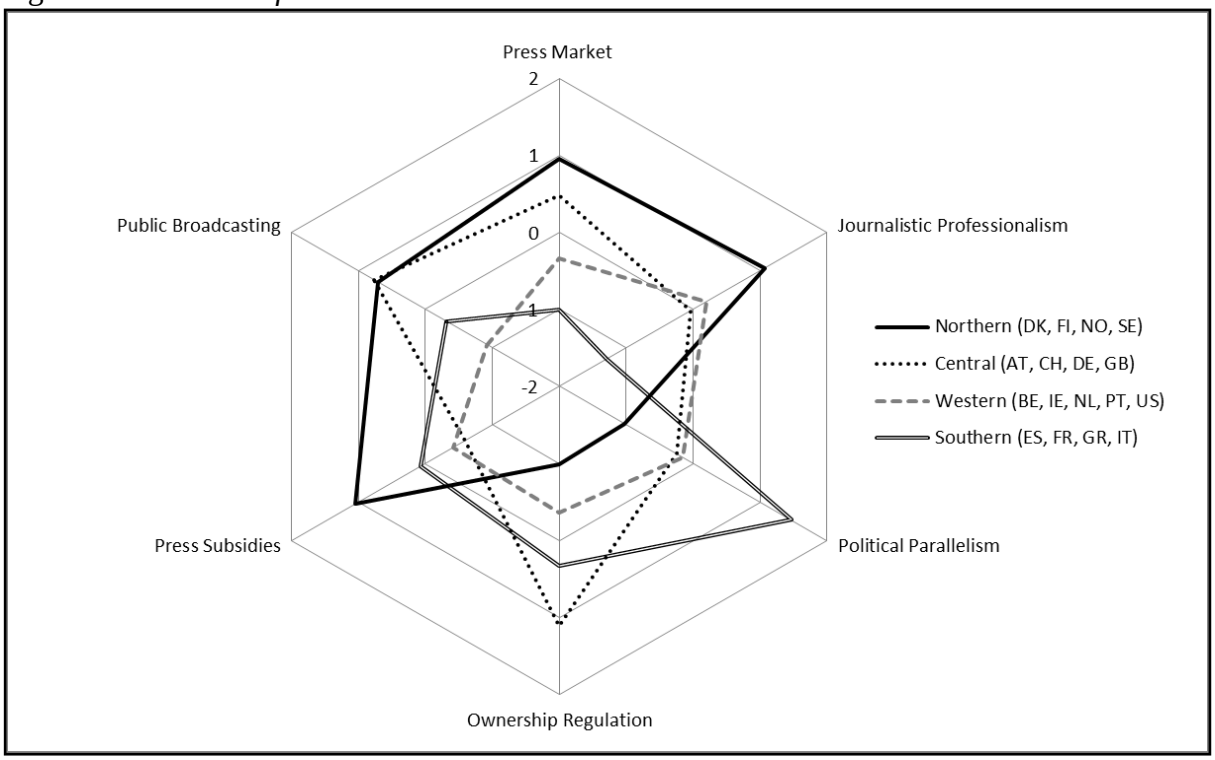


Figure 2: *Cluster Profiles*



Note: Values are *z*-standardized dimension indices.