NEWS COVERAGE AND SUPPORT FOR EUROPEAN INTEGRATION, 1990–2006

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ABSTRACT

Citizens depend on information from the mass media when forming their opinion about political issues. Studies have shown that news media coverage of the EU can affect general and policy-specific support for European integration. Extant research has focused on *individual-level* analyses at specific points in time. The present study considers whether the visibility and the framing of EU news coverage conceptualized as contextual factors influence EU support at an *aggregate* level. We look at this question in seven EU member states for the period 1990–2006. By utilizing aggregated data of the content analytical indicators and aggregate public support measures in a time-series design, we relate variation in news content to subsequent public opinion dynamics. Our results suggest that both the framing of EU news in terms of benefit and conflict matters for public support. While benefit framing increases public support, conflict framing decreases support. We conclude with a discussion of the use of news content as a contextual variable in explaining the public opinion dynamics and potential benefits of this approach for future media effects research.

Citizens, when forming their opinion about political issues, depend on information from the mass media. This in particular applies to distant and abstract issues that people do not have direct experience with (Page & Shapiro, 1992). European integration is such an issue that, whereas increasingly affecting people's daily lives, remains abstract, and distant in the subjective perception of most citizens. Much of what citizens know about the European Union (EU)[1] stems from the mass media, and EU citizens consistently identify newspapers and television news as their most important sources of information about the EU (e.g., Eurobarometer 61). If we assume that people indeed develop attitudes at least to some degree based on information from the news, we can expect that the

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This article was submitted to *IJPOR* April 15, 2008. The final version was received May 22, 2008.
    [1] For convenience, we talk about the European Union and the EU by which we also refer to the European Community (EC) for the period before the 1992 Maastricht Treaty.

way in which news media report about European matters would influence opinions about the EU and its policies. Some studies have demonstrated this to be the case on the individual level (e.g., De Vreese & Boomgaarden, 2006). These, however, do not explain macro-level public opinion dynamics over longer periods of time. As indicated by Eurobarometer surveys, public support for a country's membership in the EU sometimes shows strong fluctuations over time (e.g., Eurobarometer 67, p. 17). We assume that the information environment with regard to the EU as it is provided by the news media has the potential to influence public opinion dynamics. If information matters for the individual, then it should also matter for the public at large.

Public support for the EU is of increasing importance for the future of the European integration project. With a proliferation of referendums on EU matters, increased powers of the European Parliament, and an indirect influence via national governments, future European integration hinges upon public support. This stresses the need to learn more about the factors that influence EU support. The antecedents of support for the EU have been thoroughly investigated on the level of the individual. They pertain to, for instance, economic concerns, domestic government approval, identity and immigration attitudes, or value considerations (for overviews, see Gabel, 1998 and De Vreese & Boomgaarden, 2005). In addition, individuals' use of information sources has been identified as an important factor influencing support for the EU in general or for specific EU policies (e.g., Norris, 2000). Recently more dynamic studies of media effects have further specified when and for whom media content matters regarding changes in opinions about European affairs (e.g., Schuck & De Vreese, 2006). Whereas these micro-level models do well in explaining support at the individual level at a specific point in time, they are often applied in controlled experiments or in studies that consider short-term media effects (for an exception, see De Vreese & Boomgaarden, 2006). In this study, we look at the influence of news on aggregate public opinion over a long period in time. We investigate the *dynamics* of EU support and assess the prevalence of micro-level effects on the aggregate level.

The present study considers contextual factors and their potential to affect public opinion dynamics with regard to the EU and European integration. We focus in particular on the information environment provided by national news media in a longitudinal perspective. Specifically, we test whether the framing of EU news affects public support for membership in the Union and the perception of such membership being beneficial for one's country. We investigate these matters in seven EU member states for the period from 1990 to 2006. To provide a conservative test of the impact of news coverage, we control for a number of contextual factors that can be expected to influence macro-level support, such as economic developments and migration patterns.

NEWS COVERAGE AND SUPPORT FOR THE EU

FACTORS INFLUENCING SUPPORT FOR THE EU

The legitimacy of further European integration depends on the support of its citizens, but public support for the EU fluctuates and has declined in most member states over the past 10–15 years (Eurobarometer 55–64). A strong manifestation of skepticism towards the EU could be witnessed by the French and Dutch referendum votes in 2005. The rejection of a common EU Constitution by two founding members of the EU ultimately showed the end of permissive public consensus with regard to further European integration and the potential impact of fluctuations in public sentiments.

This adds to the relevance of determining the factors that influence the dynamics behind public EU support. First, we briefly review individual-level explanations established by previous research. Gabel and Palmer (1995), for example, have stressed the importance of personal expectations of economic benefits through EU integration for individual support (see also Anderson & Reichert, 1996). EU citizens in different socio-economic circumstances experience differential costs and benefits from EU integration, which can cause variation in support. This implies that, depending on individual resources such as income, education, occupational skills, and proximity to border regions, support for EU integration can vary. Compared to other explanations and across time and countries this utilitarian theory has provided the most robust explanation for public support for EU integration (Gabel, 1998). Partisanship has proven to be another influential factor, meaning that independent of personal characteristics individuals adopt attitudes towards EU integration that are shaped by their preferred party (see also Inglehart, Rabier, & Reif, 1991; Franklin, Van der Eijk, & Marsh, 1995). Furthermore, support for the incumbent government is related to higher levels of support for EU integration (Franklin et al., 1995; Gabel, 1998). Holding an exclusive national identity has been found to be negatively related to EU support (Carey, 2002; Christin & Trechsel, 2002; Marks & Hooghe, 2003). De Vreese and Boomgaarden (2005) introduced fear of immigration as another factor with the potential to explain variation in individual support for EU integration (see also McLaren, 2002, 2007). Other, less robust and more static factors that have been found to be positively related to support for EU integration include higher levels of political awareness (Inglehart et al., 1991; Janssen, 1991), and post-materialist political values (Inglehart et al., 1991). Importantly, Gabel (1998) concludes that individual support for EU integration is flexible and can change dynamically over time.

Given this flexibility, it is surprising that the news media are oftentimes neglected in their potential to have an impact on public support for EU integration. This is even more surprising given the fact that EU citizens repeatedly report the news media to be their most important information

source on European matters (e.g., Eurobarometer 61). Looking more partic-
ularly at the determinants of EU integration support as reviewed earlier, news
media should be considered not only in their potential to shape perceptions of
the government, immigrants or in their role as transmitters of party messages
to the public, but first with regard to their potential to influence support for
the EU directly. Given the flexible and dynamic nature of opinion forma-
tion about EU integration the role of the news media in affecting public
support deserves special attention and needs more systematic accounts in
political communication research.

THE INFLUENCE OF NEWS FRAMING

In the present study news coverage is conceptualized as a *contextual* factor,
providing an information environment for EU-related issues. This does not
imply that all citizens are exposed to such news, but that on the aggregate
level news coverage has the potential to drive the attitudes of a substantial
share of the population, effectively changing public opinion. Looking at
aggregate level support in a time series design permits, in the words of Slater
(2004, p. 178), 'exceptionally robust inference concerning real-world effects of
media exposure on national populations.' Thinking about the mechanisms
through which news coverage can have an impact on public opinion dynamics
we consider three news indicators to be of particular relevance: (a) framing the
EU in terms of benefits, (b) framing the EU in terms of disadvantages, and (c)
framing the EU in terms of conflict.

A news frame is 'an emphasis in salience of certain aspects of a topic'
(De Vreese, 2002). Research on the effects of news frames primarily focuses
on their impact on political attitudes (e.g., Iyengar, 1991; Kellstedt, 2000).
Some news frames carry an inherent valence (De Vreese & Boomgaarden,
2003), describing a certain scenario or outcome as either good or bad, which
carries the potential to affect people's interpretations and/or evaluations of an
issue (e.g., Nelson, Clawson, & Oxley, 1997; Domke, Shah, & Wackman,
1998; McLeod & Detenber, 1999). In a European context, personal benefit
expectations matter and have been shown to influence support for EU
integration (Gabel & Palmer, 1995). At the same time, framing a scenario in
terms of potential gains or benefits has the potential to affect subsequent
attitudes among those exposed to such information. It has been shown, for
example, that exposure to news framing of EU enlargement as an *opportunity*
resulted in higher levels of support for EU integration as well as in higher
benefit expectations from EU membership for one's country and for oneself
personally (Schuck & De Vreese, 2006). However, no investigation so far
has tried to systematically and dynamically link EU news framing to EU
support in an over-time perspective and across countries. In the current study,
we look for the presence of a *benefit frame* in EU news coverage and test for

its effect on public perceptions that one's country has benefited from being member of the EU.

Complementary to the assumed effect of benefit framing we also consider the impact of framing the EU in terms of *disadvantages*. In a marketing context, for example, Levin and Gaeth (1988) showed how negative attribute framing consistently leads to more negative product evaluations. Some studies have argued that due to its more emotional appeal negative information can have even stronger effects as compared to positive information (e.g., Schneider et al., 2001; Soroka, 2006). Most prominently, prospect theory by Kahneman and Tversky (1979) has shown how negative framing can affect perceptions of risk and subsequent behavior. Building up on this, many studies have demonstrated the effects of messages which are framed in terms of potential costs, threats or losses within the context of health preventive campaigns (e.g., Kalichman & Coley, 1995; Rothman & Salovey, 1997; Raghubir & Menon, 2001). In the context of the EU, McLaren (2007) has shown how threat perceptions matter for people's attitudes towards further EU integration. Thus, if we assume that negative news framing can affect people's perceptions of an issue, then framing the EU in terms of disadvantages should be assumed to also have an effect on what people think of the EU and how beneficial (or by contrast disadvantageous) they perceive their country's EU membership to be.

In addition to the news frames emphasizing benefits or disadvantages, it can be observed that news about politics—both domestic and European—is in general framed in terms of *conflict* (McManus, 1994). Research on news values points to this fact (Price, 1989) and the presence of conflict is consistently listed as an essential criterion for a story to make it into the news, not only because it 'sells', but also to meet professional standards of balanced reporting (e.g., Galtung & Ruge, 1965; Neuman, Just, & Crigler, 1992; McManus, 1994). Conflict is also inherent to politics. It is embodied in political reasoning (Lupia, McCobbins, & Popkin, 2000) and in democratic theory conflict is seen as an essential part of democratic decision-making (e.g., Sartori, 1987). Schattschneider (1960, p. 135) defined democracy as 'a competitive political system' with elites defining policy options so that citizens can make a choice: 'conflict, competition, organization, leadership and responsibility are the ingredients of a working definition of democracy'.

Conflict results from the competition of different ideas, and if citizens realize that it is part of democratic decision-making, conflict may, in principle, have positive effects on citizens' political participation (De Vreese & Tobiasen, 2007). However, while conflict-driven news has the potential to engage and mobilize citizens, it is less clear what conflict-driven news implies for the dynamics of political attitudes. Studies have repeatedly shown that strategically framed news, that is portraying politics as a strategic game of staged conflicts, has a

significant impact on political cynicism and attitudes (e.g., Cappella & Jamieson, 1997; De Vreese, 2005). Since a focus on conflict and disagreement in the news does not convey the image of a well-functioning and efficient polity or institution, we extrapolate from extant research (De Vreese, 2004) and expect that conflict-driven news is likely to negatively affect support for policies, including advances in European integration. More specifically, news focusing on disagreement and differing policy stances can be expected to depress support for EU membership of one's country.

In addition to the *framing* of EU news coverage, it is important to consider possible effects of the sheer *visibility* of the EU in the news. Previous studies have shown the EU to be only marginally represented and also EU officials to be almost invisible during periods without key events and only moderately visible around summits or other major events (De Vreese, 2002; Peter & De Vreese, 2004; see also Machill, Beiler, & Fischer, 2006). Moreover, De Vreese, Banducci, Semetko, and Boomgaarden (2006) report considerable cross-country differences in the visibility of EU news. We control for possible effects of this variation in the visibility of EU news over time and across countries on public opinion dynamics by including this visibility as an independent variable in our models.

For the present analysis of the dynamics of public opinion formation and news coverage about the EU we use bi-yearly reports of aggregate public EU support and aggregations of 6 months of news coverage about the EU prior to the measurement of public opinion. In this way we can relate variations in public EU support to prior variations in media content. Thereby, we assess a causal relationship from the framing of EU coverage on citizens' support for the EU.

Since no studies thus far have addressed the questions of the influence of the information environment on support for European integration, we can only formulate tentative expectations—based on the above—regarding the results of this study. Based on the review of literature presented earlier, these expectations are: (a) framing EU issues in terms of benefits should raise perceptions of EU membership being beneficial for one's country, whereas (b) framing EU issues in terms of disadvantages should foster more negative attitudes, and (c) framing EU issues in terms of conflict will decrease support for the EU and EU membership of one's country. We test the impact of these different frames simultaneously for two dependent variables: one that deals with a general EU support and one that deals with the question to what extent a country's EU membership is regarded as beneficial. Whereas general relationships should be similar, we would expect benefit and disadvantage framing to have a stronger impact on benefit perceptions than on general EU support, since they are conceptually more closely related. Most individual-level framing-effect studies consider the influence of only one frame at a time. In the dynamics macro

design presented here we deem it important to consider the concurrent influence of different frames.

Based on limited previous research we also assume other contextual factors to matter for support, which are employed here as control variables for the influence of news coverage. Though results of these studies differ, there is some evidence that macro-level economic indicators like unemployment and growth in GDP influence fluctuations in citizens' support for the EU (Eichenberg & Dalton, 1993; for contrary evidence see Duch & Taylor, 1997; Gabel & Whitten, 1997). The assumption here is that high unemployment rates decrease support for the EU, while GDP growth will increase support. In the present study, we control for these two indicators. Furthermore and in an exploratory manner, we employ immigration numbers as another factor potentially driving support, with more immigrants coming into the country expected to decrease support for European integration because the EU, in the period of investigation, has developed to be seen as a vehicle encouraging immigration. The inclusion of the latter is based on the fact that immigration attitudes have been found to matter for EU support on the individual level (e.g., De Vreese & Boomgaarden, 2005).

DATA AND METHODS

COUNTRY SELECTION

The main interest of the present study is to assess to what extent variations in media content are capable of explaining variations in EU support over time. Not all media outlets for the various member states are readily available. For this study we sampled a number of member states, and our selection is guided by substantial as well as pragmatic concerns. We considered countries that had been members of the EU in 1990 or earlier (since we are interested in developments over time) and for which at least one national daily newspaper was available for a considerable period of time via the LexisNexis digital database. Furthermore, we selected countries with considerable variation on the independent variables. Seven countries are included in our study: Denmark, Germany, Ireland, Italy, the Netherlands, Spain, and the United Kingdom. We selected the following newspapers: *Politiken* (Denmark), *Süddeutsche Zeitung* (Germany), *Irish Times* (Ireland), *La Stampa* (Italy), *NRC Handelsblad* (Netherlands), *El Pais* (Spain), and *Guardian* (UK).[2] Although we acknowledge that selecting one newspaper only per country

[2] Newspapers were available from 1990 onwards (*NRC Handelsblad* and *Guardian*), 1991 (*Süddeutsche Zeitung*), 1992 (*La Stampa*), 1993 (*Irish Times*), 1996 (*El Pais*), and 1997 (*Politiken*).

might not provide a fully reliable picture of the news in that country, we believe that the approach is sufficient to consider the news environment and over-time changes and that one newspaper provides a satisfactory proxy for the general media landscape on the aggregate (see for a similar argument on media coverage of immigration issues Roggeband & Vliegenthart, 2007). We furthermore selected quality newspapers, which are known to often act as agenda setters for other news media (Kleinnijenhuis, 2003).[3] Unfortunately, not all papers are available for the entire period from 1990 to 2006, and we can only rely on the material at hand.

OPERATIONALIZATION

Our *dependent* variables are measures of aggregate-level support for the EU among the populations of the various countries included in the study. To obtain data on citizens' support we use the bi-annual standard Eurobarometer as conducted on behalf of the European Commission since 1973. We use the aggregated country scores of the percentage of the population who answered affirmatively to the question: 'Generally speaking, do you think that (YOUR COUNTRY'S) membership of the European Union is a good thing?' (General EU support) and to the question: 'Taking everything into consideration, would you say that (YOUR COUNTRY) has on balance benefited or not from being a member of the European Union?' (Benefit perceptions).

Our first *independent* variable is news media attention for the European Union and its institutions. To obtain data for the visibility of EU news, we conducted a two-step computer-assisted content analysis. First, from the seven newspapers mentioned, we selected all articles that included at least one reference to the European Community (EC), the EU or any of its institutions (e.g., European Commission, European Parliament). This resulted in a total of 329,746 articles for all countries and time periods. To appropriately model news effects on public opinion, the articles were weighed based on the criteria of prominence and recency (e.g., Watt, Mazza, & Snyder, 1993): (a) articles on the first page are counted twice as heavily as articles in the remainder of the newspaper, and (b) articles appearing in the month before a Eurobarometer survey was conducted are weighed six times, 2 months before five times, etc.[4]

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[3] Due to practical reasons, we had to limit ourselves to selecting one newspaper per country. For three countries (Germany, Netherlands, and United Kingdom) we looked at two other newspapers to see whether *visibility*-scores were similar. In all cases, the correlation between the newspapers included in the analysis presented here and the other two newspapers was above $r = .90$, indicating that the selected newspapers in terms of visibility of EU news reflected trends that could also be found in other newspapers.

[4] The weight factors applied in this study capture the idea that both articles that appear on a prominent place in the newspaper as well as those appearing closer to the date on which the Eurobarometer survey was conducted are likely to have a higher impact on public opinion. This weight was composed in the absence of clear guidance from previous research. It should be emphasized, however, that this weighing procedure results in only very limited shifts in the half-yearly country-level visibility scores: the weighed data correlate very strongly with the unweighed data: $r = .94$.

We are not only interested in effects of news attention to the European Union in general, but particularly in the framing of EU news. To obtain data on news framing we sampled randomly 50 articles for each period–country combination. To ensure that articles were actually discussing the EU and not mentioning it peripherally, we selected articles that (a) mentioned the EU at least twice and (b) in which at least one of these references to the EU was in the headline or in the lead of the article. This yielded a total of 67,515 articles, from which a total of 9,649 articles were then hand-coded for the presence of benefit, disadvantages, and conflict framing. Articles for manual coding were selected in such a way that for each half-year period approximately 50 articles per country were coded. Coders were native speakers of the various national languages of the countries included, and we employed between one and three coders per language/country.

The presence of a *benefit* frame in an article was assessed by the following two items: (a) Does the author or any kind of actor mentioned in the article express/argue that one's country has benefited from the EU/EC either generally or specifically (or that the situation in one's country has improved or will [potentially] improve because of the EU/EC)? (b) Does the article present numbers, figures, statistics that indicate that one's country has benefited from the EU/EC? Articles get assigned a score between 0 and 2, pending upon the number of affirmative answers. The presence of a *disadvantage* frame was assessed by the following two items: (a) Does the author or any kind of actor mentioned in the article express/argue that one's country has had disadvantages from the EU either generally or specifically (or that the situation in one's country has been negatively affected or will [potentially] be negatively affected because of the EU/EC)? (b) Does the article present numbers, figures, statistics that indicate that one's country has been negatively affected by the EU/EC? The scores per article range between 0 and 2. *Conflict* framing was measured by three items established in previous research (e.g., Semetko & Valkenburg, 2000): (a) Does the story reflect disagreement between parties/individuals/countries/groups/institutions? (b) Does the story say that one person, group, institution or organization criticizes/blames/reproaches another? (c) Does the story (or somebody in the story) mention two or more sides of a problem or issue? The article got assigned a score between 0 and 3. The use of multiple yes/no questions for each framing variable ensures that coders have to make few inferences to reach a coding decision, but still allows for varying scores per article.

To assess inter-coder reliability, two or three coders double-coded 262 articles, evenly distributed over countries and periods. For conflict framing, this resulted in a mean country-level pair-wise agreement per item of 71.1 percent. For benefit framing, the pair-wise agreement was 83.5 percent and for disadvantages framing 85.2 percent. For the analyses, mean framing scores

per period–country combination are multiplied by visibility scores to capture the overall presence of the frames. The assumption is—in line with our conceptualization of framing as an emphasis in salience of certain aspects of a topic—that it is the overall salience of a frame, rather than its average presence that is most likely to account for public opinion dynamics (see De Vreese & Semetko, 2002) for an example of how repeated exposure to a frame yields stronger effects).

We conduct two analyses: the first with general EU support as the dependent variable and the second with benefit perceptions as the dependent variable. In each model, we included as independent control variables (both obtained from Eurostat): *unemployment*, bi-yearly harmonized and seasonally adjusted percentages of registered unemployed, *growth in gross domestic capita* (percentual change to previous period, seasonally adjusted) and the number of *immigrants* coming into the country per period as a percentage of the country's total population (the exact figures can be obtained from the authors).

ANALYSIS

Our dataset has a pooled structure (periods within countries), which requires specific attention for autocorrelation and panel difference (i.e., countries). The first question that needs to be addressed is whether the series are stationary, i.e., whether the mean of each country-level series is unaffected by a change of time origin. This would mean that no clear upward or downward trend is present in the data. We use the Fisher test that gives an overall statistic with a chi-squared distribution that is based on the results of augmented Dickey–Fuller tests for each country series. Results indicate that for both our dependent variables the null hypothesis of non-stationarity can be rejected: for 'General EU support' $\chi^2(14) = 65.95$, $p < .001$ and for 'Perceived benefits' $\chi^2(14) = 32.20$, $p < .001$. Consequently, the series do not have to be differenced.

To establish the preferred type of analysis, it is generally recommended to first check for fixed effects (e.g., Kittel, 1999; Wilson & Butler, 2007). The presence of fixed effects indicates the presence of country-specific differences in the dependent variable that are not captured by the independent variables in the model. Fixed-effect analyses including all our independent variables suggest fixed effects for both our dependent variables: 'General EU support' $F(6,167) = 84.77$, $p < .001$ and 'Perceived benefits' $F(6,167) = 113.09$, $p < .001$. Those fixed effects inform us that eventually a model that captures the specific dynamic structure of each separate country is to be preferred.

Furthermore, the error-structure resulting from the fixed-effects analyses indicates panel-heteroscedasticity for both dependent variables [Wald $\chi^2(7) = 37.28$, $p < .001$ for 'General EU support'; Wald $\chi^2(7) = 89.38$, $p < .001$ for 'Perceived benefits']. Panel-heteroscedasticity indicates that the level of variance from the variables differ across countries. Additionally, the data

shows contemporaneous correlation across panels (Breusch–Pagan LM-test 38.18, $p = .01$ for 'General EU support'; 34.47, $p = .03$ for 'Perceived benefits'). This indicates that for both the dependent variables, values for the various countries measured at the same time correlate. This heteroscedasticity and the contemporaneous correlations combined with the structure of our data (small N of countries, comparatively large t of time points) makes ordinary least squares regression (OLS) with panel corrected standard errors (PCSE) a viable option (Beck & Katz, 1995).

Within this OLS–PCSE framework, we tested several alternative dynamic specifications to ensure we use models that capture the dynamic structure of our data best, and which yield residuals without autocorrelation—i.e., unmodeled information. Inspection of residuals of separate regression analyses for the various countries suggests that they all have an AR(1) structure. This means that the residual on a certain time point is influenced by the size of the residual one time point earlier. However, the level of autocorrelation (i.e., the influence of the lagged error value on the current error value) differs significantly across countries, indicating varying levels of stability in our dependent variables. Therefore, we decide to use a panel specific AR(1) error structure in our pooled analyses, which is also in line with our results from the fixed effects analyses.[5] Mathematically, this model can be written down as:

$$y_{i,t} = c + \sum b x_{i,t-1} + \varepsilon_{i,t} \quad \varepsilon_{it} = \rho_i \varepsilon_{i,t-1} + v_{i,t}$$

where $y_{i,t}$ is the value of country i at time t on the dependent variable, c the constant, $x_{i,t}$ the value of country i at time t on an independent variable, $\varepsilon_{i,t}$ the error term, and $\varepsilon_{i,t-1}$ the value of the error term half a year earlier. ρ_i is the country-specific autoregressive parameter that corrects for autocorrelation in the residuals, $v_{i,t}$ is the part of the error term that cannot be explained by the previous value of this error term.

RESULTS

Before turning to the statistical analyses regarding the relationships between the news indicators, unemployment, immigration, and EU support measures, we first provide descriptive information on our dependent and independent variables in the seven countries under consideration (Table 1). For the dependent variables and the main news variables, Figures 1 and 2 indicate the over-time fluctuations of the countries that overall score highest and lowest on those variables, as well as the mean. Starting with the dependent variables,

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[5] Additional analyses suggest that alternative specifications like a general AR(1) structure or the use of a lagged dependent variable results in models that account less well for autocorrelation, but yields largely similar results for our main dependent variables.

TABLE 1 **Descriptive statistics of main dependent and independent variables for each country**

	N	Minimum	Maximum	M	SD
Visibility					
Denmark	20	1,583	2,382	2,041.89	235.29
Italy	26	144	1,298	852.89	340.72
Ireland	29	1,842	3,107	2,208.16	288.36
Spain	21	767	4,263	2,658.95	1,064.49
Netherlands	33	836	1,848	1,339.74	259.79
Germany	31	491	2,924	2,258.26	648.75
United Kingdom	33	1,002	1,911	1,215.68	223.41
Conflict framing					
Denmark	20	0.84	1.87	1.23	0.26
Italy	26	0.83	1.91	1.31	0.27
Ireland	29	0.38	1.34	0.85	0.23
Spain	21	0.42	1.22	0.74	0.21
Netherlands	33	0.56	1.2	0.92	0.18
Germany	31	0.72	1.84	1.33	0.22
United Kingdom	33	0.86	1.98	1.35	0.25
Benefit framing					
Denmark	20	0.02	0.25	0.12	0.08
Italy	26	0.31	0.72	0.52	0.12
Ireland	29	0.06	0.58	0.37	0.12
Spain	21	0.04	0.29	0.17	0.06
Netherlands	33	0.00	0.38	0.16	0.09
Germany	31	0.00	0.20	0.09	0.05
United Kingdom	33	0.04	0.33	0.15	0.06
Disadvantage framing					
Denmark	20	0.06	0.42	0.20	0.10
Italy	26	0.30	0.77	0.49	0.12
Ireland	29	0.04	0.58	0.28	0.12
Spain	21	0.04	0.32	0.14	0.06
Netherlands	33	0.08	0.43	0.16	0.07
Germany	31	0.06	0.43	0.20	0.08
United Kingdom	33	0.10	0.42	0.22	0.08
General EU support					
Denmark	20	48	65	56.40	4.86
Italy	26	50	76	63.90	6.98
Ireland	29	67	83	76.10	3.76
Spain	21	49	72	61.05	6.86
Netherlands	33	62	89	75.65	6.61
Germany	31	36	73	52.88	9.81
United Kingdom	33	24	57	38.03	9.26
Country's benefit					
Denmark	20	61	75	56.40	4.86
Italy	26	41	62	63.90	6.98
Ireland	29	77	90	76.10	3.76
Spain	21	37	71	61.05	6.86
Netherlands	33	54	85	75.65	6.61
Germany	31	30	65	52.88	9.81
United Kingdom	33	25	55	38.03	9.26

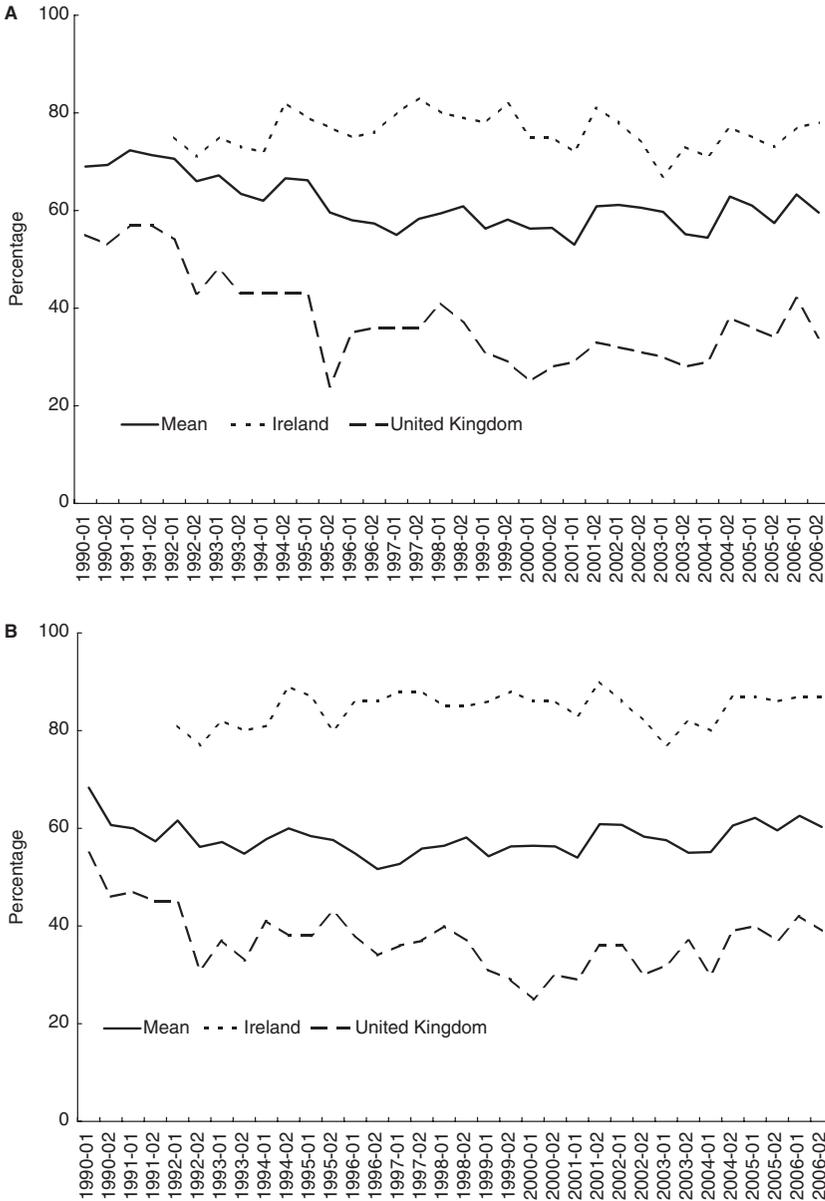FIGURE I (A) **Support for country's EU membership; (B) Country benefits from EU membership**

Figure 1A shows the aggregate share of people thinking that their country's EU membership is a good thing. Overall, and particularly in some countries, the series show considerable fluctuation and we see considerable cross-country differences (see also Table 1). Visual inspection of Figure 1A suggests overall

a slight decrease in the percentage of people that consider EU membersip a good thing. Support in Ireland is highest and rather stable. Figure 1B shows the aggregate share of people perceiving their country's EU membership as beneficial. It demonstrates no clear-cut up- or downward trend. Again, Irish citizens perceive their country's membership in the EU by far as most beneficial, whereas the values are lowest in Germany and the UK (and lately in Italy). In the Netherlands, Denmark, and Spain, a majority perceives membership as beneficial. Overall we see considerable fluctuations over time that we attempt to explain by our contextual indicators.

We now turn towards the independent variables of interest in this study, the visibility of EU news and the way this news is framed. Figure 2A displays the visibility of EU news in national newspapers for the available time periods. On average, 1,636 articles were published per country per half-year period. The developments of visibility within the various countries differ considerably. However, overall EU visibility is increasing, both in the country that has the highest overall coverage (Spain) as well as in the country with lowest coverage (Itay). In Denmark and Germany, coverage is also substantial, but more stable, while the UK and the Netherlands show below average levels of coverage (Table 1).

The share of conflict frames in EU news coverage shows no clear patterns, as can be seen in Figure 2B. It should be noted, however, that in certain periods in certain countries, conflict framing scores reach relatively high averages of around 2. In particular UK and German news appear to contain high shares of conflict frames, whereas news in the Netherlands, Ireland, and Spain seems to be least often framed in terms of conflict. Figure 2C displays the share of EU news that frames benefits of a country's EU membership. Benefit framing appears overall less frequently than conflict framing. Italian and Irish news coverage most often contained a benefit frame. By contrast, German and UK news coverage of the EU is hardly framed in terms of benefits. In Spanish and Dutch outlets we see a generally low share of benefit framing. For disadvantages framing, we find similar patterns: overall levels are low, with Italy and to a lesser extent Ireland being the exception (Table 1 and Figure 2D).

We now turn towards statistical testing of the influence of the news content measures on the variation in the dependent variables shown in Figure 1A and B, controlling for immigration and unemployment. The first analysis presented in Table 2 displays the results of the model explaining aggregate support for EU membership, i.e., the share of people thinking their country's EU membership is a good thing. The results confirm two of the three expectations regarding media-effects. First we see that benefit framing has a positive effect: here, an increase of 100 articles in which EU membership is framed as beneficial leads to an increase of 0.65 percent. Considering the fact

FIGURE 2 (A) **Visibility of EU in news coverage;** (B) **Conflict framing in EU news;** (C) **Benefit framing in EU news;** (D) **Disadvantage framing in EU news**
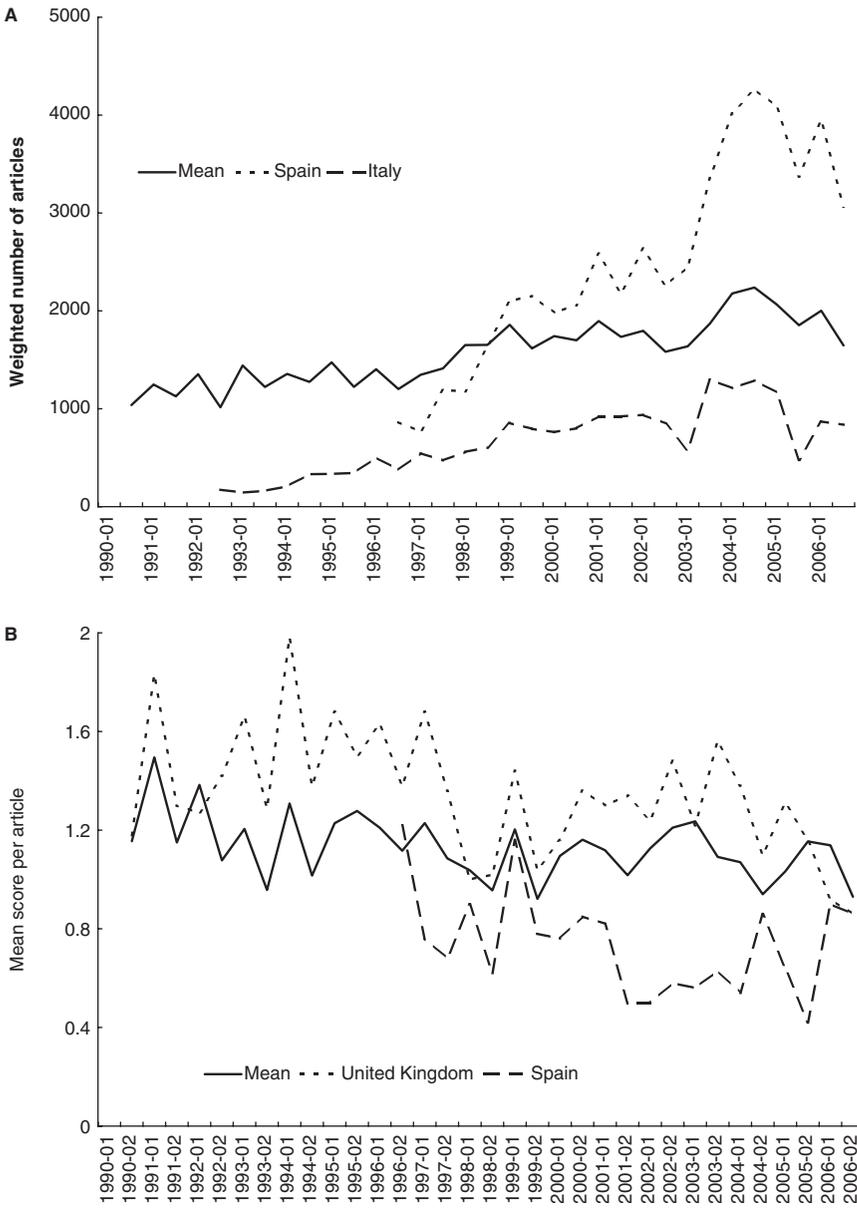
that both the level of conflict (scores from 360 to 4,163 articles) and benefit framing (between 80 and 1,256 articles) can differ greatly from one period to the other, news can contribute to considerable swings in an otherwise rather stable series. Second, we see a significant negative effect of the share of

FIGURE 2 **Continued**
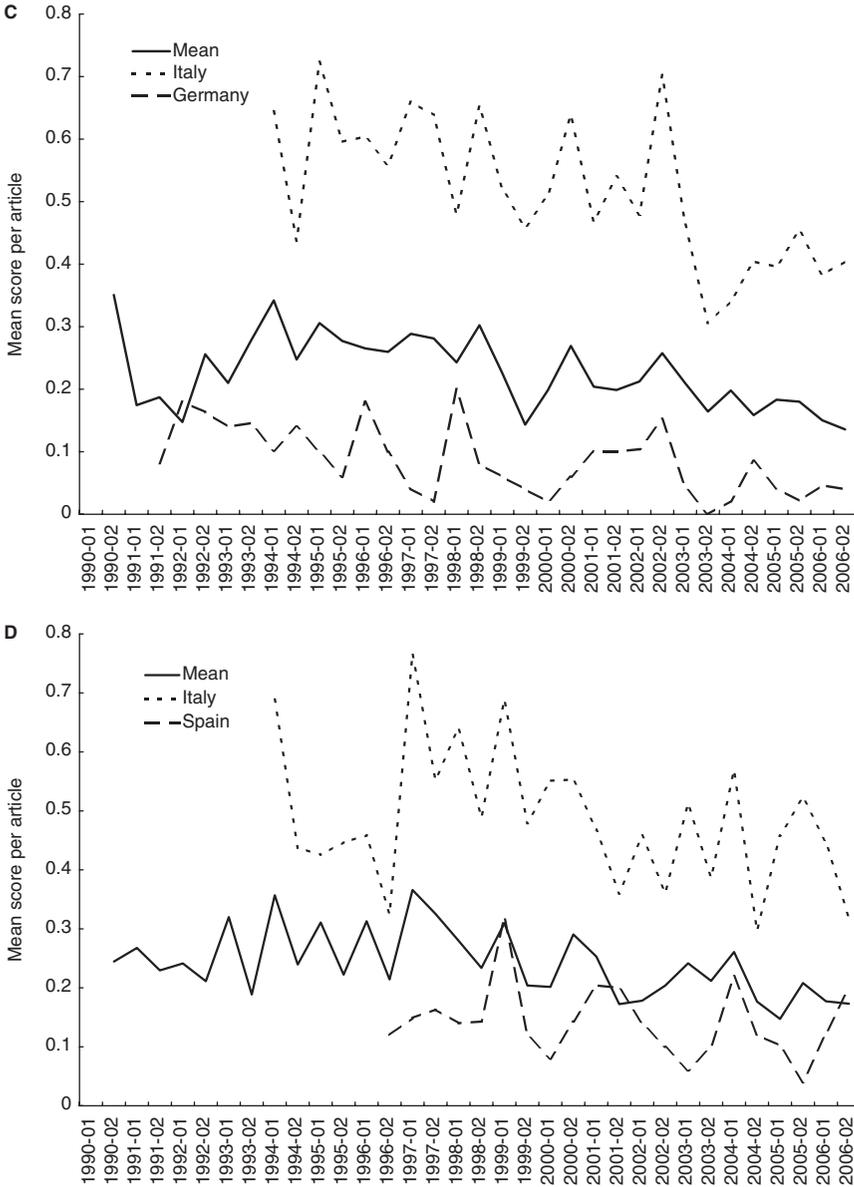
conflict frames in EU news. An increase of 100 articles containing one reference to conflict framing leads to a decrease in general EU support by 0.36 percent. Figure 3A shows the predicted EU support for various levels of conflict and benefit framing, while keeping the other variables at their means. Indeed, both variables can result in considerable variation in EU support.

TABLE 2 **Explaining support for country's EU membership and EU membership benefit perceptions**

	General EU support		Perceived benefits	
	b	SE	b	SE
Constant	66.623**	5.689	66.022**	5.406
Unemployment	−0.982**	0.373	−2.131**	0.440
Change in GDP	1.128	0.863	2.234*	0.991
Immigration	6.290	5.975	13.471	7.023
Visibility EU	0.175	0.160	0.359	0.188
Benefit framing	0.648*	0.293	1.095**	0.329
Disadvantage framing	0.295	0.317	0.296	0.341
Conflict framing	−0.360**	0.104	−0.415**	0.119
ρ	.216–.872		.201–.964	
R^2	0.912		0.908	
Difference in R^{2a}	0.044		0.070	
N	181		179	

Note: Cell entries are unstandardized coefficients and standard errors. The media variables included here were divided by 100.
*$p < .01$; **$p < .001$ (two-tailed tests).
[a]Compared to model excluding media variables (not presented here).

Disadvantage framing does not have any influence. The same goes—as expected—for plain visibility of the EU. Regarding the control measures in the model, we see that the unemployment rate is related negatively to EU support, while we find no effect for changes in GDP and the immigration level. Overall, the model explains more than 91.2 percent of the variance in the dependent variable. This high level of explained variance is largely due to the inclusion of the panel-specific autoregressive parameter. However, compared to the model excluding the media variables, we find an increase of 4.4 percent, indicating that media variables account for approximately one-third of the previously unexplained variance.

In the second model we test the effects of the same set of independent variables, this time on perceived benefit of EU membership. Do we find similar dynamics also for our second dependent variable perceived benefits of a country's EU membership? Indeed, as Table 2 shows, results are similar to the results for the EU membership variable. Again, conflict and benefit framing are significant predictors. This time, benefit framing is strongly significant. Again, however, disadvantage framing has no influence. Thus, we only partially confirm our expectation that benefit and disadvantage frames would be more important in determining benefit perceptions. As expected, benefit framing has a stronger effect on benefit perceptions than on general EU support. In this case an increase of 100 articles containing a benefit frame results over 1 percent increase in perceived benefits of EU membership, while

FIGURE 3 (A) Predicted levels of EU support for various levels of conflict and benefit framing; (B) Predicted levels of perceived benefits for various levels of conflict and benefit framing
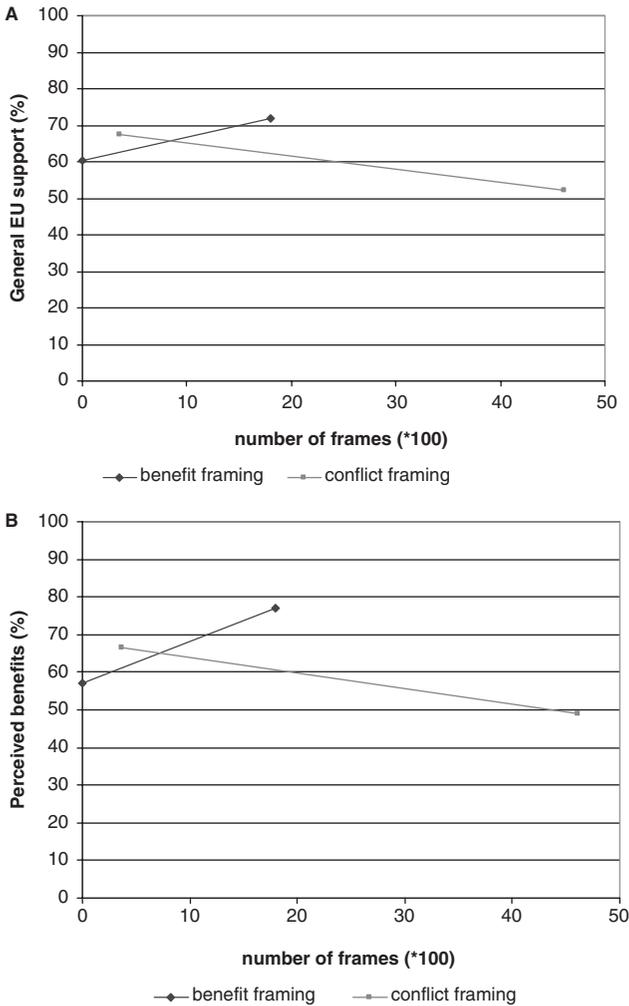
Note: Other independent variables are held constant at their means.

the same amount of articles containing a conflict frame results in a 0.42 percent decrease. Due to the considerable variation in the usage of those frames in newspapers, both variables can result in considerable shifts in the amount of people considering EU membership beneficial.

Again, while the influence of visibility of the EU is stronger than in the first model, it is still not significant. Again, higher levels of unemployment are negatively related to the perceived benefits of being an EU-member. This time, also GDP exerts a positive influence: the higher the increase in GDP,

the higher the perceived benefits. Again, immigration does not have a significant influence.

The model explains similar levels of variance as the 'general EU support' model. The contribution of media coverage is even more considerable: it adds 7 percent to the explained variance and therefore accounts for over 40 percent of the variance that had not yet been explained.

CONCLUSION AND DISCUSSION

Prior research has demonstrated that the media matter for citizens' attitudes towards Europe (e.g., De Vreese & Boomgaarden, 2006; Schuck & De Vreese, 2006). For instance the tone of news coverage about Europe, but also the framing of EU policy in terms of risk or opportunity affects peoples' support for European integration. Whereas previous studies have demonstrated this relationship on the level of the individual, thus far no study has assessed the link between news coverage and aggregate public opinion dynamics over longer periods in time. The present study presents a step forward in research on media effects on support for the EU by assessing the relationship between portrayals of the EU in the news and support for European integration at the aggregate level, stretching over a period of 17 years and across seven countries. We expected the degree to which news coverage about the EU emphasized benefits or disadvantages of EU membership, and the amount of conflict in EU news to matter for public opinion dynamics.

In line with our expectation, we found that the presence of *benefit* frames mattered, and as expected more so for benefit perceptions than for general EU support. The more often EU news was framed in terms of benefits of EU membership, the higher the share of people who perceived their country's EU membership as beneficial. The fact that this effect was substantially less strong for general EU support underlines the importance of considering the match between news content analytical indicators and the dependent variable they are assumed to affect. Contrary to our expectations, however, the framing of EU news in terms of *disadvantages* did not show any relationship with benefit perceptions. This finding is also surprising in light of prior studies emphasizing stronger effects of negative information (e.g., Soroka, 2006). To interpret this result we draw on recent research on news framing effects on ethnic prejudice. Here it is argued that in a context in which negative information is the norm it is the positive information that is perceived as rather extraordinary and therefore is picked up more easily and processed more thoroughly (Boomgaarden, 2007). This logic is arguably applicable to our study context as well since the portrayal of the EU has been shown to be dominantly and routinely more negative than positive (Norris, 2000; De Vreese, 2002; De Vreese et al., 2006). Accordingly, not the usual negatively

loaded framing of disadvantages of the EU matters for public opinion dynamics, but rather the benefits frames that stick out of the negative news are consequential. This calls for a better integration of the news environment in studies assessing news effects.

Moreover, we found the share of EU news framed in terms of *conflict* to cause a decrease in EU support and benefit perceptions since conflict news accentuates disagreement and the potential inability of the EU to operate efficiently. It should be added though that future research should investigate which types of conflict news produce which kinds of effects with respect to political attitudes. Is the effect largely brought about by internal EU conflicts between, for instance, the Commission and the Parliament or does any kind of conflict involving or about the EU (for example between national political actors) cause a decrease in support when entering the media scene? In a campaign context, for example, it has been shown that policy-based attacks (as compared to personality attacks) are perceived more favorably by people and increase voter participation (Min, 2004). If different kinds of conflicts are perceived differently by people, it might well be that the effect of conflict framing on EU support is conditional on the type of conflict that is being portrayed. Studies need to address the relationship between conflict news and attitudes more thoroughly.

The influence of news contents holds in a conservative model, controlling for prior values of public opinion as well as for other potentially influential factors. With regard to the role of the control variables employed in our models, our results corroborate those of previous studies of the effect of macro-economic indicators on EU support. These studies also did not find considerable effects of the national unemployment rate on support (e.g., Gabel & Whitten, 1997; Duch & Taylor, 1997), but changes in GDP do influence the degree to which people find EU membership beneficial. It might well be that people, when being asked how beneficial EU membership is in their perception, are more guided by economic factors than when asked for an evaluation of whether this membership is a good thing in general. These findings are in line with rational, economic accounts of support for the EU. The immigration measure that was added in a rather exploratory manner to the model did not have any effect.

The question to what extent media coverage of the EU, as discussed here, adequately reflects what actually happens at the EU level is not addressed and is open for further research. Do media mainly serve as unbiased transmitters of information or are they actively engaged in constructing an EU reality? Large cross-national differences in visibility and framing indicate that there is at least not one transnational reality and that (journalistic) selection and construction processes are at stake. In any case, media coverage of the EU informs about a transnational polity that is otherwise largely invisible to the

ordinary citizen and therefore deserves a more prominent role than often given in research explaining EU support.

Our analyses show that the news matters also on a macro-level, and thereby provide corroborating evidence for prior studies of media effects on EU support on the level of the individual. We add to this knowledge in an important way by showing that media effects do not only have a rather short-term impact on individuals, but can result in considerable long-term changes in national-level public opinion as well (e.g., Zaller, 1992). The use of time-series techniques convincingly demonstrates causal effects running from the portrayal of the EU in the news environment on public opinion. Future research should address the link between theories about media effects (which mostly are spelled out on the level of the individual) and aggregate level opinion dynamics. The challenge in the latter lies in producing data over time and across geographical entities, both on individual and aggregate level, to address not only relationships on one of these levels, but more importantly also the significance of the interaction between those two levels for media effects research. The EU provides a good playing field for such investigations, since this single issue spreads across time and space. Possible questions to be addressed would be about, for instance, effects of individual variation in news consumption in a very rich EU news environment versus individual variation in news consumption in a context where there is hardly any news about the EU. Showing that an overall news environment does impact on aggregate opinion dynamics has been a first step towards a better understanding of media effects in different information contexts (Jerit, Barabas, & Bolsen, 2006). This study furthermore adds to our knowledge about why people like the EU more at some points in time than in others and shows to what degree media content accounts for these opinion dynamics.

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